The 23rd World Congress of Soil Science

The 23rd World Congress of Soil Science

Programme

JUNE 7–12, 2026 Nanjing·China

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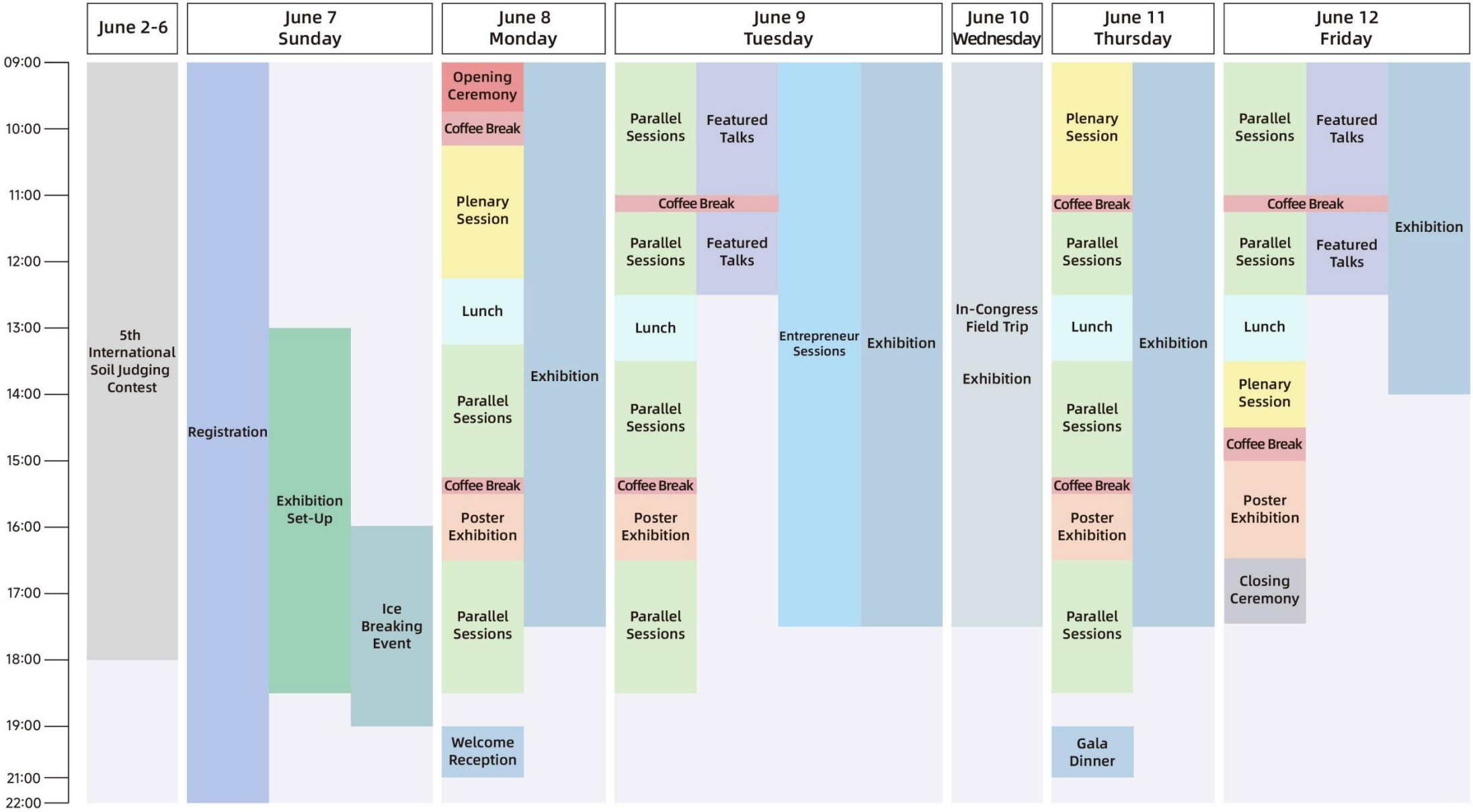


Welcome



Jiabao Zhang Academician
Vice President of IUSS,
and President of SSSC



Victor Okechukwu Chude
President of IUSS

Dear Colleagues,

On behalf of the organizing committee, I am delighted to extend an invitation to you for the 23rd World Congress of Soil Science (WCSS 2026), which will be held in Nanjing, China, from June 7 to June 12, 2026. We eagerly anticipate your participation in this prestigious international gathering.

Since its inauguration in 1927, the World Congress of Soil Science has been convened every four years, serving as a pivotal scientific forum in the realm of soil sciences. In 2018, the Soil Science Society of China successfully won the bid to host WCSS 2026 in Nanjing. This marks a significant milestone, as it is the first time the congress will be held in China, and we are honored to undertake the organization of the event in Nanjing.

Nanjing, a sub-provincial city situated in the Yangtze River delta in the southwestern part of Jiangsu province, is the provincial capital and one of China's four great ancient capitals. It is also a vital center for education, culture, economy, industry, politics, and tourism, offering a unique blend of history and modernity for all attendees.

We expect WCSS 2026 to attract a diverse group of participants, including research scientists, soil practitioners, industry representatives, policymakers, regulators, students, and all individuals interested in the sustainable management of soils. This congress will provide an exceptional platform for soil scientists worldwide to exchange ideas, strengthen cooperation, and jointly address the various challenges faced by both developed and developing regions in soil management.

We look forward to welcoming you to WCSS 2026 in Nanjing!

Organization

Organizers:

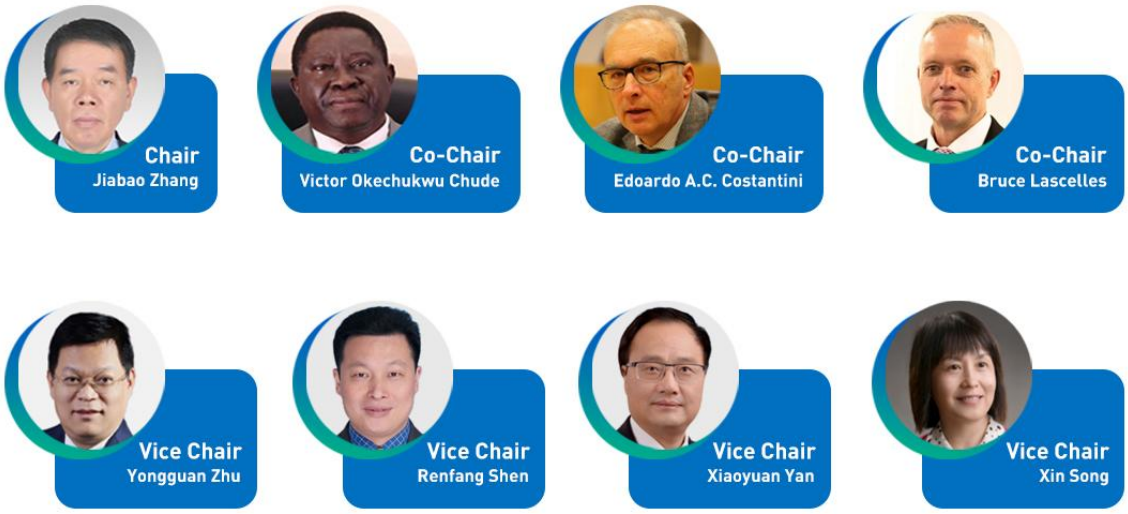
International Union of Soil Sciences

SOIL SCIENCE SOCIETY OF CHINA 中国土壤学会

Hosting Institution:

中国科学院南京土壤研究所 ISSCAS Institute of Soil Science, Chinese Academy of Sciences

Organizing Committee:



Scientific Committee:

Jiabao Zhang (China) - IUSS Vice President Congress (2022-2026)

Victor Okechukwu Chude (Nigeria) - IUSS President

Edoardo A.C. Costantini (Italy) - IUSS Past President (2023-2024)

Bruce Lascelles (UK)- IUSS President elect

Yongguan Zhu (China) - IUSS Division 4, 1st Vice Chair

Renfang Shen (China) - Chair of IUSS Division 3

Xiaoyuan Yan (China) - IUSS Division 2, 1st Vice Chair

Xin Song (China) - IUSS Division 4, 2nd Vice Chair

Organization

Andreas Baumgarten (Austria) - IUSS Treasurer

Cristine Morgan (USA) - IUSS Committee on prizes and awards

Kye-Hoon ‘John'Kim (South Korea) - IUSS Committee on budget and finance

Cornie Van Huyssteen (South Africa) - IUSS Committee on statutes and structure

Rainer Horn (Germany) - IUSS Committee on presidential elections

Richard Heck (Canada) - Chair of IUSS Division 1

Giuseppe Corti (Italy) - Chair of IUSS Division 2

Claudio Zaccone (Italy) - Chair of IUSS Division 4

Ganlin Zhang (China)- IUSS Division 1, 1st Vice Chair

Ying Zhang (China)- IUSS Division 1, 2nd Vice Chair

Jianming Xu (China) - IUSS Division 2, 2nd Vice Chair

Fusuo Zhang (China) - IUSS Division 3, Vice Chair

Michael L. Thompson (USA) - SSSA Past President

Advisory Committee:

D.L. Sparks (USA) - IUSS Past President (2002-2006)

R.S. Swift (Australia) - IUSS Past President (2006-2010)

Jae Yang (Korea) - IUSS Past President (2010-2014)

Rainer Horn (Germany) - IUSS Past President (2015-2016)

Rattan Lal (USA) - IUSS Past President (2017-2018)

Takashi Kosaki (Japan) - IUSS Past President (2019-2020)

Laura Bertha Reyes Sánchez (Mexico) - IUSS Past President (2021-2022)

James M. Tiedje (USA) - SSSC Foreign Fellow

Jianmin Zhou (China) - SSSC Fellow

Taolin Zhang (China) - SSSC Fellow

Executive Committee:

Wei Hua, Xiaoyuan Yan, Xin Song, Irene Fabbri, Rong Li, Xiaopeng Li, Jiangtao Qin, Jianbo Fan, Ruijuan Sun, Jing Song, Mao Ye, Linzhou Liang, Changlong Wei, Ying Teng, Yisheng Zhang, Weidong Yan, Jinlong Dong, Lingbo Zhou, Feifei Tang

Congress Information

Basic Information

The 23rd World Congress of Soil Science

Date: June 7-12, 2026

Registration: June 7

Congress Sessions: June 8-12

Location:

Nanjing International Expo Center & Nanjing International Expo Convention Center

南京国际博览中心 & 南京国际博览会议中心

Address: No.300 Jiangdong Middle Road, Jianye District, Nanjing, China

江苏省南京市建邺区江东中路 300 号

H5 Websites

The Congress H5 platform provides a mobile-optimized experience for convenient access to Congress information on your smartphone. Scan the QR code to view the Congress Program, General Information, Keynote Speakers, Parallel Sessions, Field Trips & Events, Service Guide, and other event details directly on your mobile device.



Congress Information

Registration

We are delighted to welcome you to the 23rd World Congress of Soil Science (WCSS 2026), taking place from June 7 to 12 at Nanjing International Expo Center (NIEC). Upon arrival at NIEC, all registered delegates are requested to follow the on-site signage to the registration desk and present your Platform ID to complete your check-in and collect your congress materials efficiently.

A confirmation email with your check-in QR code will be sent ten days before the congress. Please download and save the QR code in advance. Present it at the registration desk for fast and efficient check-in.

In addition, **an Ice-Breaking Event** will be held in the check-in area on June 7 from 16:00 to 19:00. **All delegates are welcome to join and interact.**



Registration desk opening hours are as follows:

Date	Time
June 7 (Sunday)	09:00-22:00
June 8 (Monday)	08:00-18:30
June 9 (Tuesday)	08:30-18:30
June 10 (Wednesday)	
June 11 (Thursday)	
June 12 (Friday)	08:30-14:00

Please note that only registered delegates are permitted to enter the congress rooms and exhibition areas. Companions may only access the Welcome Reception and the exhibition hall. They may not access scientific sessions or academic program areas.

Congress Information

Name Badges

Please collect your congress badge at 3B Entrance Hall from June 7, 2026, by presenting your registration QR code. Badge holders may attend all scientific sessions, receive printed congress materials, attend the Welcome Reception and social events, access the exhibition area, and enjoy coffee breaks as scheduled.

Accompanying persons (registered family members of delegates only) may attend the Welcome Reception and visit the exhibition hall. However, they may not access scientific sessions or academic program areas.

IUSS Medals and Awards

Dokuchaev Medal

Von Liebig Medal

Emma Marie Antonie Täuber Award

IUSS Communication Award

IUSS Innovation Award

Jeju Medal

IUSS Honorary Members

Ayoade Olayiwola Ogunkunle (Nigeria)

Deli Chen (Australia)

Erika Michéli (Hungary)

Peter Schad (Germany)

Rattan Lal (USA)

Sviatoslav Baliuk (Ukraine)

Takashi Kosaki (Japan)

Wolfgang Burghardt (Germany)

Ceremony Schedule		
Awards and Honors	**Ceremony Setting**	**Date**
Winners for Soil Judging Contest	Ice-Breaking Event	June 7 (Sunday)
IUSS Honorary Members	Opening Ceremony	June 8 (Monday)
Von Liebig Award	Gala Dinner	June 11 (Thursday)
Dokuchaev Award		
Jeju Award		
Täuber Award		
IUSS Innovation Award		
IUSS Communication Award		

Congress Information

Major Events

Ice-Breaking Event

Sunday, June 7, 2026 | 16:00-19:00 | 3B Entrance Hall, Nanjing International Expo Center

Opening Ceremony

Monday, June 8, 2026 | 08:45-09:55 | Zhonghua Hall, Nanjing International Expo Convention Center

Welcome Reception

Monday, June 8, 2026 | 19:00-21:00 | Zhonghua Hall, Nanjing International Expo Convention Center

Gala Dinner

Thursday, June 11, 2026 | 19:00-21:00 | Zhonghua Hall, Nanjing International Expo Convention Center

Ticket: 100 USD

Closing Ceremony

Friday, June 12, 2026 | 16:30-17:30 | Zhonghua Hall, Nanjing International Expo Convention Center

Exhibition

The exhibition area will be located in Hall 4 and open from June 8 to 12, 2026. Professional visitors may visit the exhibition throughout the event. All conference delegates are cordially invited to attend the Exhibition Day on June 10.
Operating hours are as follows:

Date	Time
June 8 (Monday)	10:00-17:30
June 9 (Tuesday)	09:00-17:30
June 10 (Wednesday) Exhibition Day	
June 11 (Thursday)	
June 12 (Friday)	09:00-14:00

Congress Information

Venue Information

1. Congress Catering

• Coffee Break

June 8 | 09:55-10:15 & 15:15-15:30

June 9 | 11:00-11:15 & 15:15-15:30

June 11 | 11:00-11:15 & 15:15-15:30

June 12 | 11:00-11:15 & 14:30-15:00

Location: **Corridors outside the conference rooms**

Coffee breaks will be held in conjunction with poster exhibitions, enabling participants to interact with presenters and view the latest research.

• Lunch

June 8 | 12:15-13:15

June 9-12 | 12:30-13:30

Location: **Hall 4 Dining Area, NIEC**

Note:



1. **Vegetarian** and **Halal food options** will be available during meal services.
2. If you have any **food allergies**, please carry a card to inform the staff.

2. Parking

Please park at **Parking Lot P1** of Nanjing International Expo Center (NIEC).

3. Toilets

Toilets are available on **every floor of NIEC and the Convention Center**. Please follow directional signs.

4. Nursing Room

A nursing Room is available on **the east side of the 1st floor of the Convention Center, adjacent to River View Café.**

5. Medical Services

Emergency medical assistance will be available to registered participants during the Congress. Two medical service points are available on site.

Location: **Inside Hall 4 Service Center, NIEC & 1st floor of the Convention Center**

6. Foreign Currency Exchange & SIM Card Services

A service point for international attendees might be available inside NIEC, offering the following services (not finalized):

- Foreign currency exchange (to CNY cash);
- Local SIM card purchase (**passport required for registration**).

Location: **Convention Center, 1st Floor**

Staff at the service point provide basic English support.

7. Smoking Policy

Please note that **smoking is not permitted anywhere indoors at the venue**.

Designated Smoking Areas in **the Convention Center:**

- **1st floor: Outdoor smoking area**
- **2nd-4th floors: Small terraces for smoking**

8. Photography

Photographers will be on site during part of the event. Images taken may be used for promotional purposes. If you have any questions or concerns, please contact the Registration Desk.

Contacts

General Information

Email: WCSS 2026@issas.ac.cn

Registration

Email: WCSS 2026.reg@issas.ac.cn

Exhibition/Sponsorship

Email: WCSS 2026.sponsor@issas.ac.cn

Visa Application

Email: WCSS 2026.visa@issas.ac.cn

Transportation/Accommodation

Email: WCSS 2026.hotel@issas.ac.cn

Tour/Field Trip

Email: WCSS 2026.tour@issas.ac.cn

Emergency Numbers

Police Emergency: 110

Ambulance: 120

Fire Emergency: 119

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SCI

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GPI GLOBAL PHOSPHORUS INSTITUTE

THANK YOU TO OUR SPONSORS!

ONGOING UPDATES...

Venue Map



Information Desk | Registration Desk | Service Center | Nursing Room | Smoking Area | Medical Station | Quiet Room | Metro | Gate

Information Sign | Dining Area | Conference Area | Exhibition Area | Entrepreneur Area | SIM Card Services | Poster Area | Foreign Currency Exchange Services

Meeting Rooms Plan

Convention Center, 1st level



Meeting Rooms Plan

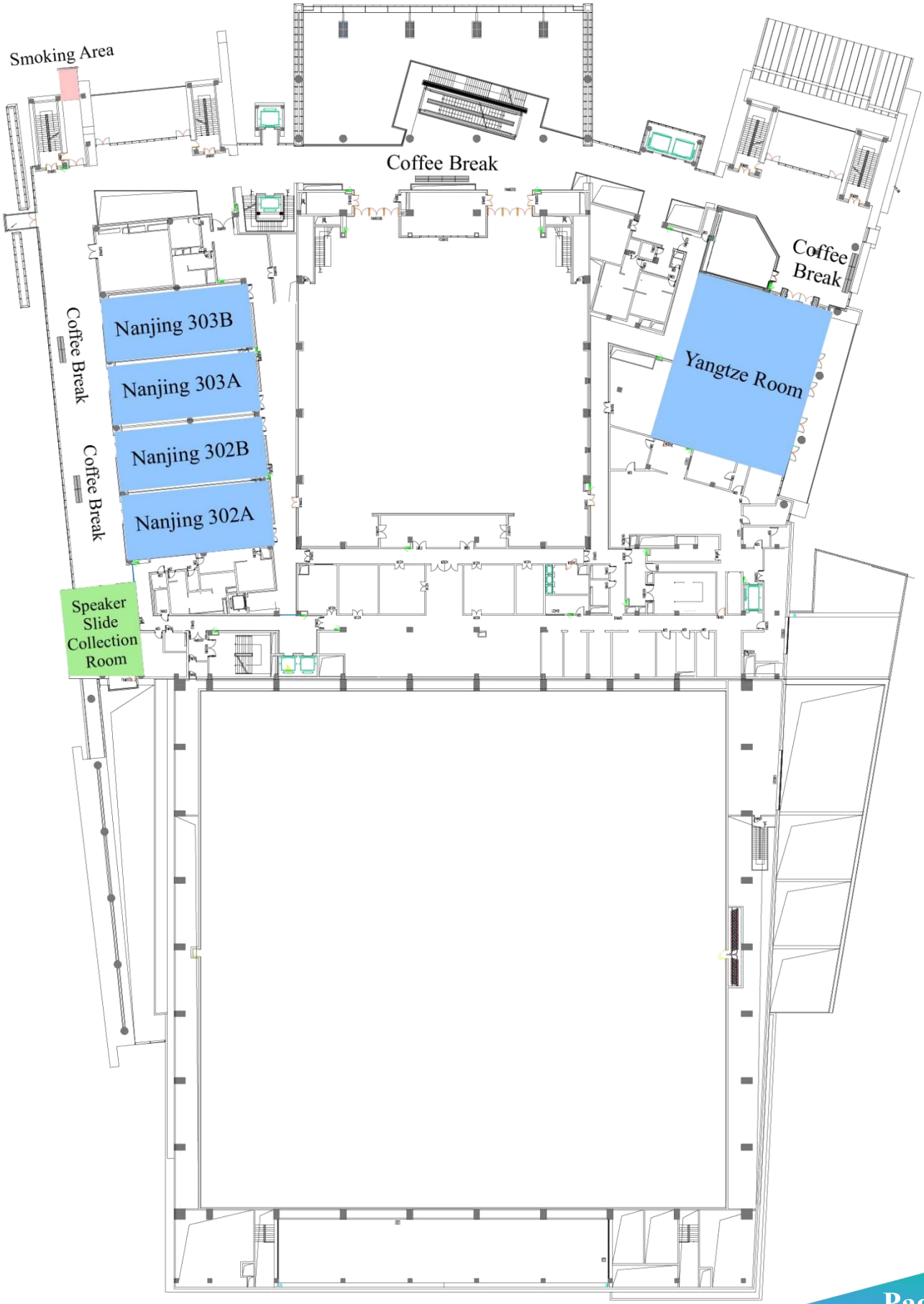
Convention Center, 2nd level



Meeting Rooms Plan

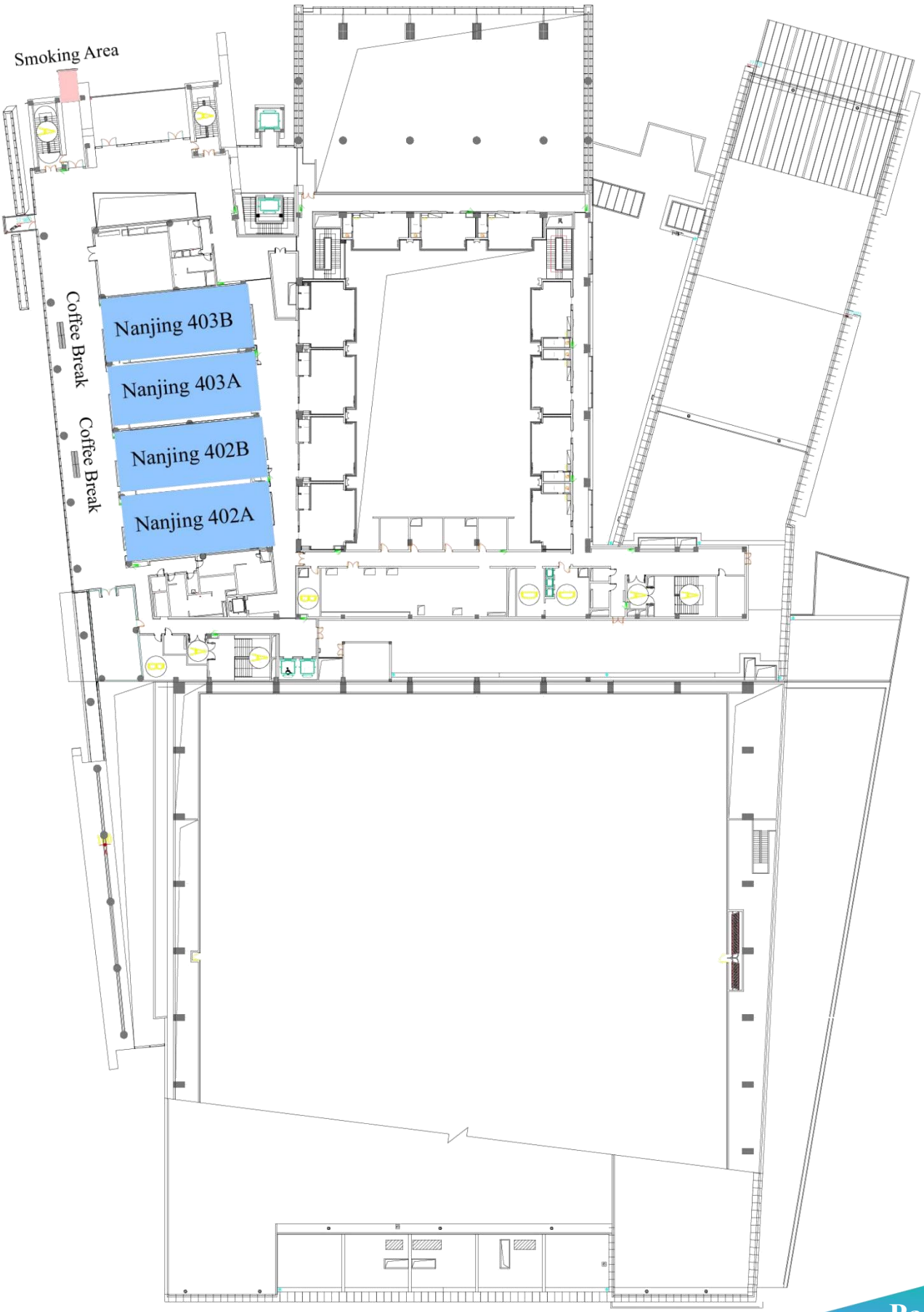
Convention Center, 3rd level

Speaker Slide Collection Room is located here



Meeting Rooms Plan

Convention Center, 4th level

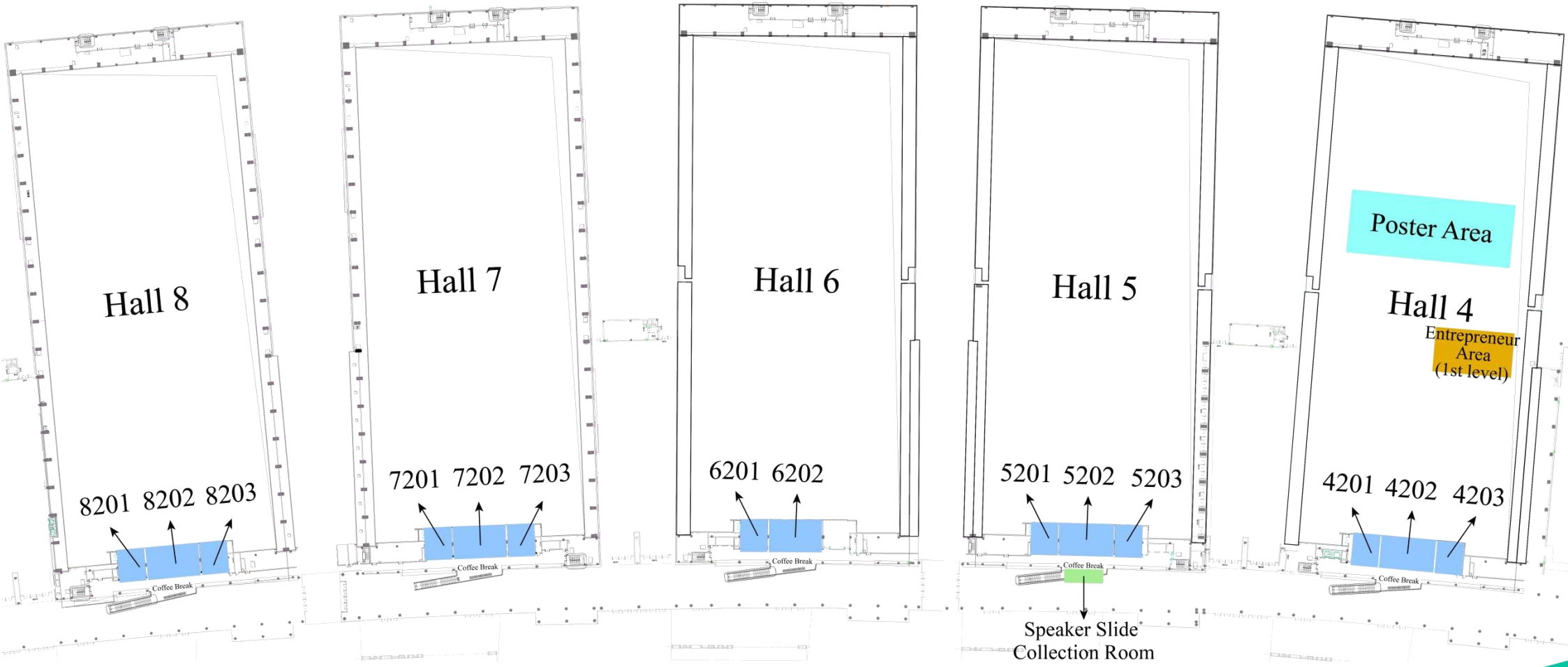


Meeting Rooms & Poster Plan

Meeting Rooms: Expo Center, Hall 4-8, 2nd level

Poster Area: Expo Center, Hall 4, 1st level

Speaker Slide Collection Room: Expo Center, Hall 5, 1st level Lobby



Information for Oral Presenters

I. Requirements for Presentation Files

1. File Format

The Congress accepts presentation files in the following formats (the slide template is attached to this email):

- Standard Microsoft PowerPoint format, preferably .pptx;
- PDF format.

Other file formats are not supported by the on-site presentation system. To avoid any issues during your presentation, please make sure your file format meets the above requirements in advance.

2. Video Playback

During the presentation, the on-site system only supports playback of standalone PowerPoint or PDF files. It does not support external links that redirect to browsers, webpages, online video platforms, or other independent media players.

If your presentation includes video content, please embed the video into your PowerPoint file in advance and play it using PowerPoint's built-in video controls.

The slide Management system supports the following video playback methods:

- Videos embedded directly in the PowerPoint file;
- Local video files linked within the PowerPoint file.

We recommend using common mainstream video formats such as MP4 or WMV. If you are unsure whether your video format is supported, please visit the Slide Collection Room as early as possible, where professional on-site staff will assist you with testing and troubleshooting.

3. Presenter View

The on-site presentation system does not support PowerPoint Presenter View.

During your presentation, the display on the computer and the projection screen will be the same. If you need speaker notes, prompts, or a presentation script, please print a hard copy in advance and bring it with you.

4. PowerPoint Layout Ratio

All session rooms are equipped with display and projection devices using a **16:9** aspect ratio. Please prepare your presentation file in 16:9 format whenever possible.

If your file is prepared in another aspect ratio, black bars may appear on the sides or at the top and bottom during playback. However, the content will not be stretched or distorted.

II. How to Bring Your Presentation File

After preparing your final presentation file, please save and bring it to the venue using one or more of the following methods:

- USB flash drive, portable hard drive, or other storage device;
- Cloud storage download;
- Email attachment or downloadable link.

We recommend preparing at least one backup method in case of file damage, device recognition issues, or unstable network access.

III. Slide Testing and Upload Requirements

The Congress will use a unified slide Management system to manage all presentation files. To ensure smooth playback, please make sure to arrive at the Slide Collection Room corresponding to your session room area **at least 2 hours before your scheduled presentation** to complete file upload and playback testing.

Please check the exact time, session room, and area of your presentation in advance. Then, according to the official room-area layout map provided by the Congress, proceed to the corresponding Slide Collection Room.

The venue is divided into two session room areas, and each area will have one Slide Collection Room. Please go to the Slide Collection Room assigned to the area where your session room is located, so as to avoid delays caused by going to the wrong area.

Location:

Speaker Slide Collection Room 1: Conference Center, 3rd Floor

Speaker Slide Collection Room 2: Expo Center, Hall 5, 1st level Lobby

Information for Poster Presenters

Please be informed that posters will be printed and exhibited by the committee - please refrain from printing them on your own. You may go to the designated area at the scheduled time and locate your poster by its number.

Location:

Expo Center, Hall 4, 1st level, Poster Area

Time:

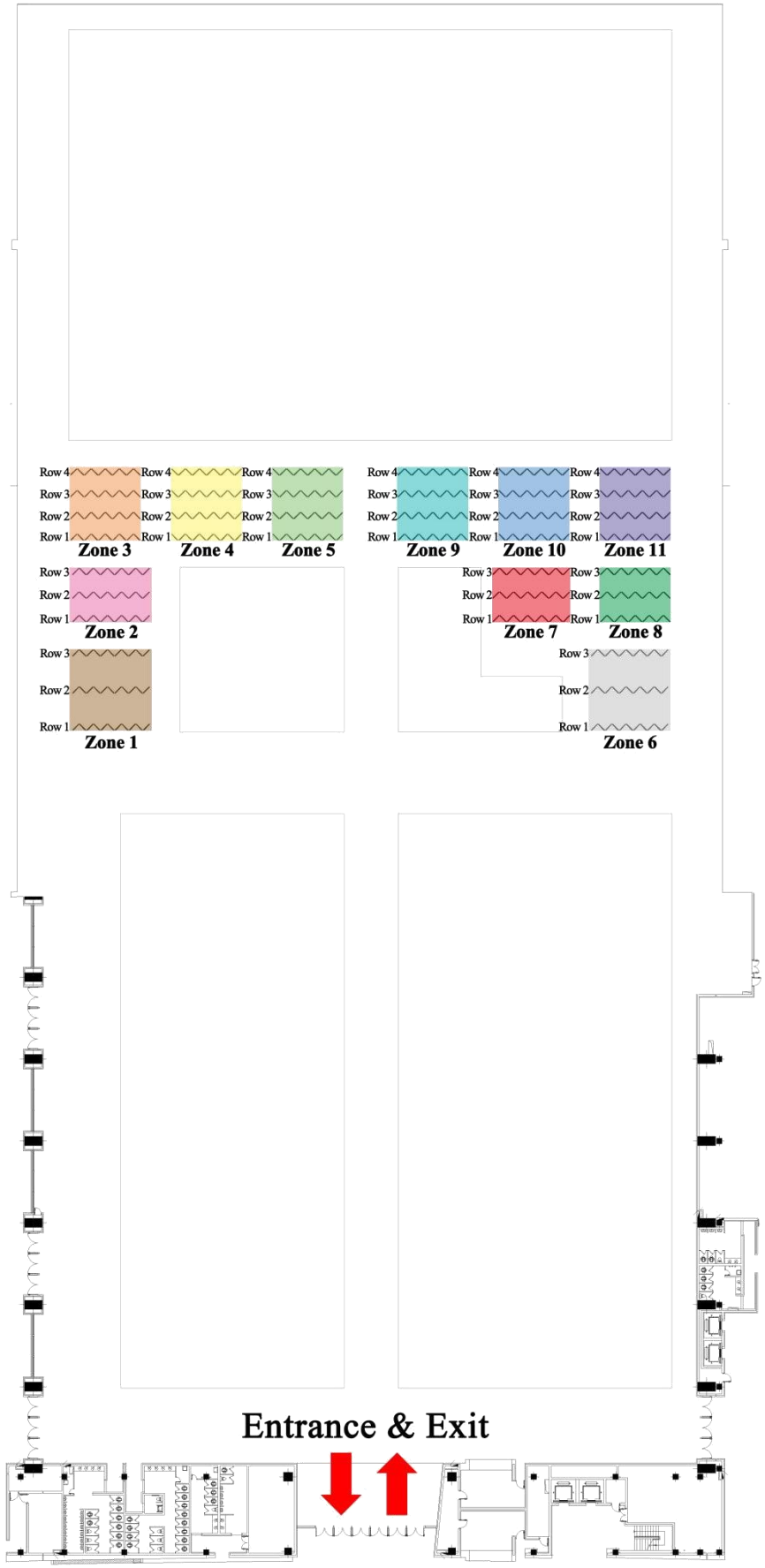
Poster session: June 8-11 15:30-16:30, June 12 15:00-16:30

Here is the floor plan of the Poster Area. Please locate your poster by its number.

You may check your poster number in the poster session section on pages 351-416.

Information for Poster Presenters

Expo Center, Hall 4, 1st level, Poster Area



Row 4 No. 353 - No. 372
Row 3 No. 333 - No. 352
Row 2 No. 313 - No. 332
Row 1 No. 293 - No. 312

Zone 5

Row 4 No. 273 - No. 292
Row 3 No. 253 - No. 272
Row 2 No. 233 - No. 252
Row 1 No. 213 - No. 232

Zone 4

Row 4 No. 193 - No. 212
Row 3 No. 173 - No. 192
Row 2 No. 153 - No. 172
Row 1 No. 133 - No. 152

Zone 3

Row 3 No. 111 - No. 132
Row 2 No. 089 - No. 110
Row 1 No. 067 - No. 088

Zone 2

Row 3 No. 045 - No. 066
Row 2 No. 023 - No. 044
Row 1 No. 001 - No. 022

Zone 1

Row 4 No. 785 - No. 804
Row 3 No. 765 - No. 784
Row 2 No. 745 - No. 764
Row 1 No. 725 - No. 744

Zone 11

Row 4 No. 705 - No. 724
Row 3 No. 685 - No. 704
Row 2 No. 665 - No. 684
Row 1 No. 645 - No. 664

Zone 10

Row 4 No. 625 - No. 644
Row 3 No. 605 - No. 624
Row 2 No. 585 - No. 604
Row 1 No. 565 - No. 584

Zone 9

Row 3 No. 545 - No. 564
Row 2 No. 525 - No. 544
Row 1 No. 505 - No. 524

Zone 8

Row 3 No. 483 - No. 504
Row 2 No. 461 - No. 482
Row 1 No. 439 - No. 460

Zone 7

Row 3 No. 417 - No. 438
Row 2 No. 395 - No. 416
Row 1 No. 373 - No. 394

Zone 6

Sessions Overview

The congress will feature 8 Plenary Speeches and 15 Featured Talks.

Over 2,000 oral presentations to be delivered, along with around 800 poster presentations.

These will comprehensively showcase the latest research achievements and cutting-edge developments in soil science.

Plenary Speeches will be held during three time slots:

·June 8 | 10:15-12:15

·June 11 | 09:00-11:00

·June 12 | 13:30-14:30

Poster sessions will be held during four time slots:

·June 8 | 15:30-16:30

·June 9 | 15:30-16:30

·June 11 | 15:30-16:30

·June 12 | 15:00-16:30

To encourage active participation and enhance the quality of poster presentations, and to elevate their significance in academic communication, the congress will introduce a Best Poster Award, with a total of 120 awards. The list of winners will be announced at the closing ceremony, and electronic certificates will be sent via email to the awardees after the event.

Sessions Schedule

Monday, June 8

08:45-09:55	Opening Ceremony (Convention Center, Zhonghua Hall, 1st Floor)																
09:55-10:15	Coffee Break																
10:15-12:15	Plenary Sessions (Convention Center, Zhonghua Hall, 1st Floor)																
12:15-13:15	Lunch (Expo Center Hall 4, Dining Area)																
	Convention Center, 2nd Floor								Convention Center, 3rd Floor					Convention Center, 4th Floor			
	Nanjing 201	Nanjing 202	Nanjing 203	Nanjing 205	Nanjing 206	Nanjing 207	Nanjing 208	Nanjing 209	Nanjing 302A	Nanjing 302B	Nanjing 303A	Nanjing 303B	Yangtze Room	Nanjing 402A	Nanjing 402B	Nanjing 403A	Nanjing 403B
13:15-15:15	Session 407001	Session 409011	Session 403002	Session 409006	Workshop 01	Panel Discussion 01		Session 101001	Session 305009	Session 305006	Session 305005	Session 303001	Session 505005		Session 203005	Session 203003	Session 308001
15:15-15:30	Coffee Break																
16:30-18:30	Session 407001	Session 409011	Session 403002	Session 409008	Workshop 02	Session 301002			Session 305009	Session 305006	Session 305005	Session 303001	Session 505005	Session 202001	Session 203005	Session 203003	Session 204003

Sessions Schedule

Monday, June 8

		Expo Center, Hall 4			Expo Center, Hall 5			Expo Center, Hall 6		Expo Center, Hall 7			Expo Center, Hall 8		
	Entrepreneur Area	4201	4202	4203	5201	5202	5203	6201	6202	7201	7202	7203	8201	8202	8203
13:15-15:15	13:30-15:00 Entrepreneur Sessions	Session 102005	Session 102001	Session 106003	Session 402005	Session 408001	Session 110003	Session 310005	Session 306003	Session 203002	Session 201001	Session 302007	Session 309001	Session 307001	Session 302004
15:15-15:30		Coffee Break													
15:30-16:30	15:30-17:00 Entrepreneur Sessions	Poster Session (Expo Center, Hall 4, Poster Area)													
16:30-18:30		Session 102005		Session 106003	Session 402005	Session 408001	Session 110003	Session 310005	Session 306003	Session 203002	Session 201001	Session 302007	Session 309001	Session 307001	Session 302004

Sessions Schedule

Tuesday, June 9

	Convention Center 1st Floor	Convention Center, 2nd Floor								Convention Center, 3rd Floor					Convention Center, 4th Floor			
	Zhonghua Hall	Nanjing 201	Nanjing 202	Nanjing 203	Nanjing 205	Nanjing 206	Nanjing 207	Nanjing 208	Nanjing 209	Nanjing 302A	Nanjing 302B	Nanjing 303A	Nanjing 303B	Yangtze Room	Nanjing 402A	Nanjing 402B	Nanjing 403A	Nanjing 403B
09:00-11:00	Featured Talks	Session 407001	Session 409011	Session 403002	Session 409008	Session 305007	Session 303002	Session 309004	Session 310002	Session 305009	Session 305006	Session 305005	Session 303001	Session 505005	Session 202001	Session 203005	Session 203003	Session 202002
11:00-11:15	Coffee Break																	
11:15-12:30	Featured Talks	Session 407001	Session 409011	Session 403002	Session 409008	Session 305007	Session 303002	Session 309004	Session 310002	Session 305009	Session 305006	Session 305005	Session 303001	Session 505005		Session 203005	Session 203003	Session 202002
12:30-13:30	Lunch (Expo Center Hall 4, Dining Area)																	
13:30-15:15		Session 407001	Session 409011	Session 403002	Session 409008	Session 305007	Panel Discussion 04	Session 304003	Session 308002	Session 305009	Session 305006	Session 305005	Session 303001	Session 505005	Session 202001	Session 203005	Session 203003	Session 202002
15:15-15:30		Coffee Break																
16:30-18:30		Session 407001	Session 409011	Session 403002	Session 409008	Session 305007		Session 304003	Session 308002	Session 305009	Session 305006	Panel Discussion 05	Session 303001	Session 505005	Session 202001	Session 203005	Session 203003	Session 202002

Sessions Schedule

Tuesday, June 9

	Expo Center, Hall 4				Expo Center, Hall 5			Expo Center, Hall 6		Expo Center, Hall 7			Expo Center, Hall 8		
	Entrepreneur Area	4201	4202	4203	5201	5202	5203	6201	6202	7201	7202	7203	8201	8202	8203
09:00-11:00	09:00-12:30 Entrepreneur Sessions	Session 108002	Session 107001		Session 409002	Panel Discussion 02		Session 503005		Session 203007	Session 201001	Session 402006	Session 305002	Session 302005	
11:00-11:15		Coffee Break													
11:15-12:30		Session 108002	Session 107001		Session 409002	Panel Discussion 03	Session 104002	Session 503005		Session 203007	Session 201001	Session 402006	Session 305002	Session 302005	
12:30-13:30		Lunch (Expo Center Hall 4, Dining Area)													
13:30-15:15	13:30-17:30 Entrepreneur Sessions	Session 108001	Session 107001	Session 108003	Session 409002	Session 401002	Session 104002	Session 310004	Session 306003	Session 203007	Session 201001	Session 402006	Session 305002	Session 302005	Session 304007
15:15-15:30		Coffee Break													
15:30-16:30		Poster Session (Expo Center, Hall 4, Poster Area)													
16:30-18:30		Session 108001	Session 107001	Session 108003	Session 409002	Session 401002	Session 104002	Session 310004	Session 306003	Session 203007	Session 203001	Session 402006	Session 305002	Session 302005	Session 304007

Sessions Schedule

Wednesday, June 10		
	Expo Center, Hall 4	
	Entrepreneur Area	Exhibition Area
09:00-12:00	10:30-12:00 Workshop 03	Exhibition
12:00-13:30	Lunch (Expo Center Hall 4, Dining Area)	
13:30-17:30		Exhibition

Sessions Schedule

Thursday, June 11

9:00-11:00	Plenary Sessions (Convention Center, Zhonghua Hall, 1st Floor)																
	Convention Center, 2nd Floor								Convention Center, 3rd Floor					Convention Center, 4th Floor			
	Nanjing 201	Nanjing 202	Nanjing 203	Nanjing 205	Nanjing 206	Nanjing 207	Nanjing 208	Nanjing 209	Nanjing 302A	Nanjing 302B	Nanjing 303A	Nanjing 303B	Yangtze Room	Nanjing 402A	Nanjing 402B	Nanjing 403A	Nanjing 403B
11:00-11:15	Coffee Break																
11:15-12:30		Session 408004	Session 409003		Session 305012	Session 305001	Session 309005	Session 301001	Session 303004	Session 303007	Session 303005	Session 303003	Session 302005	Session 409010	Session 409012	Session 409001	
12:30-13:30	Lunch (Expo Center Hall 4, Dining Area)																
13:30-15:15	Session 402001	Session 408004	Session 409003	Session 409007	Session 305012	Session 305001	Session 309005	Session 301001	Session 303004	Session 303007	Session 303005	Session 303003	Session 302005	Session 409010	Session 409012	Session 409001	
15:15-15:30	Coffee Break																
16:30-18:30	Session 402001	Session 408004	Session 409003	Session 409007	Session 305012	Session 305001	Session 309005	Session 301001	Session 303004	Session 303007	Session 408003	Session 303003	Session 302005	Session 409010	Session 409012	Session 409001	

Sessions Schedule

Thursday, June 11

	Expo Center, Hall 4				Expo Center, Hall 5			Expo Center, Hall 6		Expo Center, Hall 7			Expo Center, Hall 8		
	Entrepreneur Area	4201	4202	4203	5201	5202	5203	6201	6202	7201	7202	7203	8201	8202	8203
10:30-11:00	10:30-12:00 Entrepreneur Sessions														
11:00-11:15		Coffee Break													
11:15-12:30		Session 102003	Session 110001	Session 108005	Session 404002	Session 409004	Session 409014	Session 502002	Session 406003	Session 203004	Session 201002	Session 207001	Session 309002	Panel Discussion 06	
12:30-13:30		Lunch (Expo Center Hall 4, Dining Area)													
13:30-15:15	13:30-15:00 Workshop 04	Session 102003	Session 110001	Session 108005	Session 404002	Session 409004	Session 409014	Session 502002	Session 406003	Session 203004	Session 201002	Session 207001	Session 309002	Panel Discussion 06	Session 305003
15:15-15:30		Coffee Break													
15:30-16:30	15:30-17:00 Entrepreneur Sessions	Poster Session (Expo Center, Hall 4, Poster Area)													
16:30-18:30		Session 102003	Session 110001	Session 108005	Session 404002	Session 409004	Session 409014	Workshop 05	Session 406003	Session 203004	Session 201002	Session 207001	Session 309002	Panel Discussion 06	Session 304004

Sessions Schedule

Friday, June 12

	Convention Center 1st Floor	Convention Center, 2nd Floor								Convention Center, 3rd Floor					Convention Center, 4th Floor			
	Zhonghua Hall	Nanjing 201	Nanjing 202	Nanjing 203	Nanjing 205	Nanjing 206	Nanjing 207	Nanjing 208	Nanjing 209	Nanjing 302A	Nanjing 302B	Nanjing 303A	Nanjing 303B	Yangtze Room	Nanjing 402A	Nanjing 402B	Nanjing 403A	Nanjing 403B
9:00-11:00	Featured Talks	Session 402001	Session 408004	Session 409003	Session 409007	Panel Discussion 07	Session 305001	Session 305011	Session 303006	Session 303004	Session 303007	Session 303005		Session 302005	Session 409010	Session 409012	Session 409001	
11:00-11:15	Coffee Break																	
11:15-12:30	Featured Talks	Session 402001	Session 408004			Panel Discussion 07	Session 305001	Session 305011	Session 303006	Session 303004	Session 303007	Session 303005		Session 302005	Session 409010	Session 409012	Session 409001	Session 401003
12:30-13:30	Lunch (Expo Center Hall 4, Dining Area)																	
13:30-14:30	Plenary Sessions (Zhonghua Hall, 1st Floor)																	
14:30-15:00	Coffee Break																	
16:30-17:30	Closing Ceremony (Zhonghua Hall, 1st Floor)																	

Sessions Schedule

Friday, June 12

	Expo Center, Hall 4			Expo Center, Hall 5			Expo Center, Hall 6		Expo Center, Hall 7			Expo Center, Hall 8		
	4201	4202	4203	5201	5202	5203	6201	6202	7201	7202	7203	8201	8202	8203
9:00-11:00	Session 108004	Session 110001	Session 105001	Session 404002	Session 409009	Session 402004	Panel Discussion 08	Session 406003	Session 206001	Session 201002	Session 207002	Session 401001	Panel Discussion 09	Session 101002
11:00-11:15	Coffee Break													
11:15-12:30	Session 108004	Session 110001	Session 112001		Session 409009	Session 402004	Panel Discussion 08	Session 406003	Session 206001	Session 201002	Session 207002	Session 401001	Panel Discussion 09	Session 101002
12:30-13:30	Lunch (Expo Center Hall 4, Dining Area)													
15:00-16:30	Poster Session (Expo Center, Hall 4, Poster Area)													

Plenary Sessions

Room: Convention Center, Zhonghua Hall			
Date	**Time**	**Name & Affiliation**	**Title**
June 8	10:15-10:45	 **Renfang Shen** Institute of Soil Science, Chinese Academy of Sciences	Sustainable Utilization of Acid Soils: Chinese Innovations and Field Practices Offering Insights for Global Prospects
June 8	10:45-11:15	 **Joann Whalen** McGill University	Rhizobiome Partners to Optimize Nutrient Transfers from Soil to Plants
June 8	11:15-11:45	 **Pete Smith** University of Aberdeen	Looking after Soils so that They Can Look after Us
June 11	09:00-09:30	 **Deli Chen** University of Melbourne	Sustainable Nitrogen Management-Bridging Soil Science, Policy, and Practice
June 11	09:30-10:00	 **Olufunmilayo Ande** Soil Science Society of Nigeria	Soil Wealth for Global Security: Harnessing Regenerative Agriculture and Soil's Multifunctional Role for Climate and Environmental Resilience
June 11	10:00-10:30	 **Panos Panagos** The Joint Research Center (JRC) of the European Commission	Soil Health in Europe: Challenges and Opportunities for Soil Science and Policy
June 12	13:30-14:00	 **Yongguan Zhu** Research Center for Eco-environmental Sciences, Chinese Academy of Sciences	Harness Soil Microbiome for One Health
June 12	14:00-14:30	 **Jiří (Jirka) Šimůnek** University of California, Riverside	Numerical Modeling of the Fate and Transport of Contaminants in the Soil-plant Continuum at Various Scales Using HYDRUS

Featured Talks

Room: Convention Center, Zhonghua Hall			
Date	**Time**	**Name & Affiliation**	**Title**
9 June	09:00-09:25	**Ganlin Zhang** Institute of Soil Science, Chinese Academy of Sciences	No Free Carbon: Rethinking the Global Potential of Soil Carbon Sequestration
9 June	09:25-09:50	**Chris Freeman** School of Environmental & Natural Sciences, Bangor University	From Enzymes to Ecosystems: Peatlands and the Hidden Carbon Flows Shaping Our Climate
9 June	09:50-10:15	**Fang-Jie Zhao** Nanjing Agricultural University	Mitigating soil heavy metal pollution to protect human health
9 June	10:15-10:40	**Edoardo A.C. Costantini** IUSS, CNR-IBE	The Research Forum of the IUSS
9 June	10:40-11:05	**Fangbai Li** Institute of Eco-environmental and Soil Sciences, Guangdong Academy of Sciences	Nature-Based Solutions for Heavy Metal(loid) Pollution in Acid Reddish Soils: From Biogeochemistry to Applications
9 June	11:15-11:40	**Xiaoyuan Yan** Institute of Soil Science, Chinese Academy of Sciences	Three Decades of Diffuse Pollution Control in Lake Taihu: Lessons for the Global Soil – Water Community
9 June	11:40-12:05	**Zhongjun Jia** Northeast Institute of Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences (CAS)	China Black Soils Initiative: New Paradigm and New Breakthrough
9 June	12:05-12:30	**Jagdish Kumar Ladha** University of California, Davis	Cultivating Resilient Crops: Nitrogen Management for Climate and SDG Benefits

Featured Talks

Date	Time	Name & Affiliation	Title
12 June	09:00-09:25	**Jizhong Zhou** Institute for Environmental Genomics, School of Biological Sciences, University of Oklahoma	Microbial Responses to Climate Warming: Impacts, Feedbacks, and Predictive Modeling
12 June	09:25-09:50	**Frank Löffler** University of Tennessee, Knoxville	Reducing nitrous oxide emissions
12 June	09:50-10:15	**Rongliang Qiu** South China Agricultural University	Theories and Practices of Heavy Metal Contaminated Soil Remediation in China
12 June	10:15-10:40	**Jianming Xu** College of Environmental and Resource Sciences, Zhejiang University	Soil Viruses and Elemental Cycling
12 June	10:40-11:05	**Baoyuan Liu** Beijing Normal University	Bottlenecks and Solutions of Global Soil Erosion Mapping
12 June	11:15-11:30	**Ganlin Zhang** Institute of Soil Science, Chinese Academy of Sciences	2026 World Soil of the Year Celebration Activities
12 June	11:30-11:55	**Tingzhao Li** Amway (Shanghai) Innovation& Science Co., Ltd	Healthy Soil, Premium Crops: Nutrilite Organic Innovation and Evidence from Long-Term Field Trials

Panel Discussions

Date	Time	Topic	Room
8 June	13:15-15:15	Panel Discussion 01: Bridging the Soil Science Gap: Global Collaboration of National Soil Science Societies	Convention Center, Nanjing 207
9 June	09:00-11:00	Panel Discussion 02: Women in Soil Science: Closing Gaps and Strengthening Collaboration	Expo Center, Hall 5, 5202
9 June	11:15-12:30	Panel Discussion 03: Fostering International Collaboration in Soil Science	Expo Center, Hall 5, 5202
9 June	13:30-16:00	Panel Discussion 04: A 35-Year Journey of Pedosphere: Promoting Soil Sciences across the World	Convention Center, Nanjing 207
9 June	16:30-18:30	Panel Discussion 05: Climate-friendly and sustainable agricultural practices with plateau-specific characteristics and multi-dimensional symbiosis in Yunnan under climate change	Convention Center, Nanjing 303A
11 June	11:15-12:30 13:30-15:15 16:30-18:30	Panel Discussion 06: Open discussion session on observed phenomena in soils and their underlying pedogenic processes: bring and share photos of your macro- and micromorphological observations and join the discussion on debated phenomena!	Expo Center, Hall 8, 8202
12 June	9:00-11:00 11:15-12:30	Panel Discussion 07: Opportunities and challenges for the development of soil science journals	Convention Center, Nanjing 206
12 June	9:00-11:00 11:15-12:30	Panel Discussion 08: China-Spain Summer School on Soil Health and Sustainability	Expo Center, Hall 6, 6201
12 June	9:00-11:00 11:15-12:30	Panel Discussion 09: Elsevier Journal Editors Symposium	Expo Center, Hall 8, 8202

Panel Discussions

Monday, June 8	Room: Convention Center, Nanjing 207	
Panel Discussion 01	**Bridging the Soil Science Gap: Global Collaboration of National Soil Science Societies**	
	Conveners: Bruce Lascelles, British Society of Soil Science (BSSS) Xin Song, Soil Science Society of China (SSSC)	
Schedule	**Topic**	**Presenter**
13:15-15:15	Classic Collaboration Model Summary: Review successful cases of cross-national cooperation among soil science societies, and summarize feasible cooperation frameworks and operational mechanisms.	Rainer Horn, Honorary member Renfang Shen, Honorary President, Soil Science Society of China Paul Hallett, Academic Chair, British Society of Soil Science; Council Member of Multiple National Soil Science Societies Andrew Morris, British Society of Soil Science Michael Thompson, Former Chair, American Society of Soil Science Additional representatives from global national soil science societies (to be confirmed)
	Actionable Collaborative Strategies: Discuss the implementation path of innovative cooperation modes such as long-term society twinning, global virtual academies for soil science, open sharing of academic resources, technical training and talent exchange programs.	
	Future Global Cooperation Layout: Propose standardized, sustainable and inclusive development suggestions for the long-term collaborative development of the global soil science community.	

Panel Discussions

Tuesday, June 9	Room: Expo Center, Hall 5, 5202	
Panel Discussion 02	**Women in Soil Science: Closing Gaps and Strengthening Collaboration**	
	Convener: Wang Fang, Institute of Soil Science, Chinese Academy of Sciences **Co-Conveners:** Daniela Sauer, University of Göttingen Sabine Grunwald, University of Florida Laura Bertha Reyes Sánchez, National Autonomous University of Mexico	
Schedule	**Topic**	**Presenter**
09:00-09:10	Welcome and Introduction	Panelist: Joann Whalen, McGill University, Canada Daniela Sauer, Soil Science Society of Germany Fang Wang, International Atomic Energy Agency; Soil Science Society of China Jaroslava Sobocká, Soil Science and Conservation Research Institute, Slovakia He Yan, Zhejiang University, China Olufunmilayo Ande, Soil Science Society of Nigeria Tatiana Minkina, Southern federal university, Russia Christine Morgan, Soil Science Society of American Jussara Borges Regitano, Universidade de Sao Paulo, Brazil Cristina Siebe, National Autonomous University of Mexico Ha Anh, Soil Science Society of Vietnam Lucia Helena Cunha dos Anjos, Federal Rural University of Rio de Janeiro, Brazil Lilit Pogosyan, Institute of Ecology (INECOL), Mexico/Armenia Nkosinomusa Nomfundo Dube, University of KwaZulu-Natal, South Africa Zhi Mei, Catalan Institute for Water Research, Spain
09:10-10:10	Guided Panel Discussion	
10:10-10:40	Audience Questions and Interactive Discussion	
10:40-10:50	Closing Remarks	

Panel Discussions

Tuesday, June 9	Room: Expo Center, Hall 5, 5202
Panel Discussion 03	**Fostering International Collaboration in Soil Science**
	Convener: Wang Fang, Institute of Soil Science, Chinese Academy of Sciences; IAEA **Co-Conveners:** Wei Zhang, Michigan State University Martin Elsner, Technical University of Munich Carlos Bezuidenhout, North-West University

Schedule	Topic	Presenter
11:15-11:20	Welcome and Introduction	Panelist: Yongguan Zhu, Research Center for Eco-environmental Sciences, Chinese Academy of Sciences, China Deli Chen, University of Melbourne, Australia Joann Whalen, McGill University, Canada Bruce Lascelles, Soil Science Society of United Kingdom Daniela Sauer, Soil Science Society of Germany Fang Wang, International Atomic Energy Agency; Soil Science Society of China Panos Panagos, European Commission Joint Research Centre (JRC) Martin Elsner, Technical University of Munich, Germany Olufunmilayo Ande, Soil Science Society of Nigeria Maxine J. Levin, Soil Science Society of America Takuro Shinano, Hokkaido University, Japan Wei Zhang, Soil Science Society of America Tatiana Minkina, Southern federal university, Russia Yi Peng, Food and Agriculture Organization of the United Nations (FAO) Francisco S. B. Ladeira, University of Campinas, Brazil Anton Boman, Geological Survey of Finland, Finland Cornelius Bezuidenhout, North-West University, South Africa Axel Cerón, Soil Science Society of Mexico
11:20-12:05	Guided Panel Discussion	
12:05-12:25	Audience Questions and Interactive Discussion	
12:25-12:30	Closing Remarks	

Panel Discussions

Tuesday, June 9	Room: Convention Center, Nanjing 207	
Panel Discussion 04	**A 35-Year Journey of Pedosphere: Promoting Soil Sciences across the World** **Convener:** RenFang Shen, Institute of Soil Science, Chinese Academy of Sciences (CAS) **Co-Conveners:** Zhongjun Jia, Institute of Soil Science, Chinese Academy of Sciences (CAS) Fenxiang Meng, Institute of Soil Science, Chinese Academy of Sciences (CAS)	
Schedule	**Topic**	**Presenter**
13:30-13:45	A 35-Year Journey of Pedosphere: advancing with soil science	Renfang Shen Institute of Soil Science, Chinese Academy of Sciences
13:45-15:20	**Panel Discussion Topics** 1. Soil fertility and Pedosphere 2. Soil organic matter and Pedosphere 3. Pedosphere and its contribution to soil science development 4. Old Journals and Young Scientists: How Journals Can Help Create the New Science 5. Nanotechnology in agriculture and our experience with Pedosphere 6. Soil biochemistry and my experience with Pedosphere 7. Black Soils and My Experience with Pedosphere 8. My Experiences with Pedosphere and Future Research Priorities 9. Soil acidification and my experience with Pedosphere 10. Frontiers in Pedosphere Research 11. Others...	**Editorial board members/** **Highly cited paper authors/** **Hot paper authros** **(Listed in registration order)** Minggang Xu Pete Smith Scott X Chang Alex McBratney Andres Rodriguez Seijo Tida Ge Wenyou Hu Fenli Zheng Renkou Xu Donald L. Sparks Others with interest are welcomed….
15:30–16:00	**Panel Discussion Topics** 1. Soil science journals as the foundation for agronomy, ecosystem and climate sciences 2. Pedosphere past, present and future 3. Promoting journal impact while advancing soil science 4. Research Frontiers & Soil Science Journals 5. Publishers for advancing both soil science and journals 6. Others...	**Invited Editor-in-Chiefs/** **Invited Editors and Experts /** **Publishers** **(Listed in registration order)** Joann k. Whalen Denny Rigby William R Horwath Evgenia Blagodatskaya Fang Wang Zhongjun Jia Liudmila Orlova Zicheng YU Fenxiang Meng Others with interest are welcomed….

Panel Discussions

Tuesday, June 9	Room: Convention Center, Nanjing 303A	
Panel Discussion 05	**Climate-friendly and sustainable agricultural practices with plateau-specific characteristics and multi-dimensional symbiosis in Yunnan under climate change**	
	Convener: Zhi Zuo, Pesticide Eco-Alternatives Center **Co-Conveners:** Chunliang Li, Pesticide Eco-Alternatives Center Xurui Dai, Pesticide Eco-Alternatives Center	
Schedule	**Topic**	**Presenter**
16:30-16:35	Openning Remarks	Zuo Zhi Executive Director of Pestiside Eco-Alternatives Center, Yunnan
16:35-16:50	Effects of Dry Direct-Seeded Rice and No-Till Soybean Cropping After Rice on Soil Health and Nutrient Utilization in the Puer Region	Xiaohua Li Deputy Director of Agricultural Science Research Institute of Pu'er City, Senior Agronomist
16:50-17:05	An Ecological Farming Model for Climate Adaptation: Synergizing Soil Health and Community Resilience in Yunnan's Rice Paddies	Chonglie Xu Owner of Ecological Farm in Eryuan, Dali
17:05-17:20	Jingmai Mountain's Ancient Tea Forests: A Model of Forest- Tea Symbiosis, Biodiversity, and Cultural Heritage	Kang Nan Blang ethnicity, inheritor of the traditional handmade tea of Jingmai Mountain.
17:20-17:35	Building Climate-Resilient Agriculture through Multi-Stakeholder Engagement: The PEAC Model	Hao Zhao Agriculture Technical Director of Pestiside Eco-Alternatives Center, Yunnan
17:35-17:47	Video Case Share: A Documentary on Climate-Friendly Rice Cultivation in the Hani Terraces: Where Ancient Wisdom Meets Modern Science	Zuo Zhi Executive Director of Pestiside Eco-Alternatives Center, Yunnan
17:47-18:10	Panel Discusion: A Climate Change Perspective on Yunnan's Diverse Response Strategies	Zuo Zhi Executive Director of Pestiside Eco-Alternatives Center, Yunnan
18:10-18:30	Closing Remarks	Zuo Zhi Executive Director of Pestiside Eco-Alternatives Center, Yunnan

Panel Discussions

Thursday, June 11	Room: Expo Center, Hall 8, 8202	
Panel Discussion 06	**Open discussion session on observed phenomena in soils and their underlying pedogenic processes: bring and share photos of your macro- and micromorphological observations and join the discussion on debated phenomena!**	
	Convener: Daniela Sauer, University of Göttingen, Germany **Co-Conveners:** Cezary Kabala, Wroclaw University of Environmental and Life Sciences, Poland John Galbraith, Virginia Tech, USA	
Schedule	**Topic**	**Presenter**
11:15-12:30	**Moderator: Cezary Kabala**	
	Still Soil or Already Sediments: Boundary Cases with Ferrugination in Russian Nature Reserves (Smolensk Lakelike and Geyzer Valley)	Ivan N. Semenkov Isaev Centre for Problems of Forest Ecology and Productivity
	Discussion on problems of distinguishing soil from sediment	-
13:30-15:15	**Moderator: John Galbraith**	
	The Umbrisol problem	Michele E. D'Amico DISAA - Universit of Milano
	Discussion on formation mechanisms of Umbrisols	-
	Mattic epipedon: living skin of the Tibetan Plateau	Fei Yang Institute of Soil Science, Chinese Academy of Sciences
	Discussion on formation mechanisms of the “mattic epipedon” in mountain grassland ecosystems	-
16:30-18:30	**Moderator: Daniela Sauer**	
	Luvisols, Retisols and accompanying ‘glossic' soils	Cezary Kabala Wroclaw University of Environmental and Life Sciences
	Discussion on the distribution and formation mechanisms of Retisols with tongues and with other morphologies of the E/Bt horizon	-
	What Are Skeletans and How Do They Form?	John Galbraith School of Plant and Environmental Sciences, Virginia Tech
	Discussion on the formation mechanisms of skeletans	-

Panel Discussions

Friday, June 12	Room: Convention Center, Nanjing 206	
Panel Discussion 07	**Opportunities and challenges for the development of soil science journals** **Convener:** Renkou Xu, Institute of Soil Science, Chinese Academy of Sciences **Co-Conveners:** Xinhua Peng, Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences	
Schedule	**Topic**	**Presenter**
09:00-09:15	The Role of Scientific Societies and Their Journals to Foster Trust in Science	Michael L. Thompson Agronomy Department, Iowa State University, USA
09:15-09:30	Authors and Editors	Roland Bol Editor-in-chief of European Journal of Soil Science, Institute of Bio- and Geosciences, Agrosphere (IBG-3), Forschungszentrum Jülich GmbH, Germany
09:30-09:45	Development and Journey of Journal of Soils and Sediment in the Last 20 Years in the Context of Soil, Forestry and Environmental Sciences	Zhihong Xu Editor-in-chief of Journal of Soils and Sediments, School of Environment and Science, Griffith University, Australia
09:45-10:15	Panel Discussions or Questions from Audience for Speakers Above	-
10:15-10:30	Barriers and enablers for publishing soil science content in broad-scope, high-impact journals	Abel Barral Cuesta Deputy Editor of Advanced Science
10:30-10:45	BIOCHAR: Navigating Opportunities and Challenges in a Rapidly Evolving Publishing Landscape	Hailong Wang Executive Editor-in-Chief of Biochar, School of Environment and Chemical Engineering, Foshan University
10:45-11:00	Expanding Frontiers: Journals, AI, and Open Science Initiatives	Xinji Li, Journal Manager, Frontiers Media SA
11:15-12:30	Panel Discussions or Questions from Audience for Speakers Above	-

Panel Discussions

Friday, June 12	Room: Expo Center, Hall 6, 6201	
Panel Discussion 08	**China-Spain Summer School on Soil Health and Sustainability**	
	Convener: Jing Che, Institute of Soil Science, Chinese Academy of Sciences, China **Co-Convener:** Arabela Vega-Aguilar, Autonomous University of Barcelona, Spain	
Schedule	**Topic**	**Presenter**
Chair: Jinlong Dong, Institute of Soil Science, Chinese Academy of Sciences, China		
09:00-09:15	Ice Nucleating Particle Contributions and Potential Climate Effects of Chinese Agriculture	Siyuan Jing
09:15-09:30	Vineyard management matters: organic practices enhance soil entomopathogens	Jorge Dueñas Hernani
09:30-09:45	Cultivar-Specific Differences in Growth and Rhizosphere Microbial Responses to Soil Acidity Gradients	Xiaorui Jiang
09:45-10:00	Before You Measure: How Sampling Strategies Shape Microplastics Quantification in Soils	Samuel Cusworth
10:00-10:15	Bacteriophages assisted bacteria to facilitate soil multifunctionality under organochlorine pesticide contamination	Zhouzhou Shen
10:15-10:30	Inorganic and Organic Carbon Stocks in Semi-Arid Perennial Systems: The Role of Cover Crops	Cristina Fernández Soler
10:30-10:45	Balancing Fire Recurrence and Soil Recovery: Keys to Maintaining Mediterranean Soil Health	Luis D. Olivares-Martínez
11:15-12:30	Panel discussion	

Panel Discussions

Friday, June 12	Room: Expo Center, Hall 8, 8202	
Panel Discussion 09	**Elsevier Journal Editors Symposium**	
Schedule	**Topic**	**Presenter**
09:00–09:15	Opening Remarks	Yong-Guan Zhu Research Center for Eco-environmental Sciences, Chinese Academy of Sciences, China
09:15–09:30	Introduction to Elsevier Journals	Adriaan Klinkenberg Publishing Director, Elsevier
09:30–11:00	AI in Scholarly Publishing	-
11:15-12:30	Author Workshop & Panel Discussion	Joann Whalen McGill University

Entrepreneur Sessions

Area: Expo Center, Hall 4, Entrepreneur Area		
Date	**Time**	**Topic**
8 June	13:30-15:00	Introduction to Center Environmental Business Operations
8 June	15:00-15:30	Congress Commemorative Book Launch
8 June	15:30-17:30	Soil2Soul: From Soil Crisis to Hopeful Futures- A Photo Contest
9 June	09:00-17:30	Biofertilizers, Biocontrol & Biostimulants: From Science to Technology and Commercialisation
10 June	10:30-12:00	The Soil Lexicon - Co-shaping Memory, Culture, and Future
11 June	10:30-12:00	New Book Launch
11 June	13:30-15:00	Soil Profile Simulation Workshop with Recyclable Cartons

Entrepreneur Sessions

Monday, June 8	Expo Center, Hall 4, Entrepreneur Area

Congress Commemorative Book Launch

Schedule	Topic	Presenter
15:00-15:30	Join Kuikui the panda on a fascinating journey through ancient China's farming wisdom! This beautifully illustrated book named "Green Fingers on Ancient Farmland: Wisdom of Traditional Chinese Land Use" reveals how ancestors grew abundant food without tractors or chemicals—using harmony, sustainability, and recycling. From terraced fields to mulberry-fish ponds, from crop rotation to natural fertilizers, every page brings timeless land-care secrets to life. Perfect for children and adults alike, it's the official companion of the 23rd World Congress of Soil Science. Discover how to keep soil ever fresh and strong—and fall in love with the earth beneath your feet.	Zucong Cai Nanjing Normal University

Entrepreneur Sessions

Monday, June 8	Expo Center, Hall 4, Entrepreneur Area

Soil2Soul: From Soil Crisis to Hopeful Futures- A Photo Contest

Organizers:
The Organizing Committee of the 23rd World Congress of Soil Science

International Union of Soil Sciences Young and Early Career Scientists Working Group

Schedule	Title	Presenter
Chair: Longlong Xia, Institute of Soil Science, CAS		
15:30-15:40	Introduction	
15:40-15:45	From Cracks to Flow: Restoring Soil–Water Pathways	Ana C. M. Avila University of Tasmania, Australia
15:45-15:50	Microbial Rescue: Turning the Tide on Cotton Wilt	Aqsa Hafeez Western Sydney University, Australia
15:50-15:55	Taming the Gullies: Building Resilient Urban Soils in Africa	Arabela Vega ECOSUR CHETUMAL, Mexico
15:55-16:00	The Invisible Crisis: Reclaiming Salinized Greenhouse Soils	Yin Yin Zhangjiagang Bureau of Agriculture and Rural Affairs, China
16:00-16:05	Abandoned & Impacted: Managing Soil Carbon and Contamination Risks	Ivan Semenkov (Presented by Chair) Isaev Centre for Problems of Forest Ecology and Productivity of the RAS, Russia
16:05-16:10	Photographing Mexico's Indigenous Agricultural Heritage	Javier Leonardo Toxqui Roldan Colegio de Postgraduados, México
16:10-16:15	From Plastic Waste to Prosperity: Rebuilding Soil and Rural Life	Jinlong Dong Institute of Soil Science, CAS

Entrepreneur Sessions

Chair: Axel Ceron Gonzalez, Vrije Universiteit Brussel, Belgium		
16:30-16:35	Turning Red to Green: Remediating Acidified Soils for Crop Recovery	Kailou Liu Jiangxi Institute of Red Soil and Germplasm Resources, China
16:35-16:40	From Silent Soil to Living Soul: Regenerating Mediterranean Vineyards	Mukkaram Ejaz Institute of Physics - Centre for Science and Education, Silesian University of Technology, Poland
16:40-16:45	From Degraded Hillside to Restored Watershed: Enclosure as a Path to Soil Recovery in Ethiopia	Muleta Gadissa Gonfa Ethiopian Institute of Agricultural Research
16:45-16:50	The Finite Skin: Saving Black Soil from Erosion and Depletion	Shunhua Yang Institute of Soil Science, CAS
16:50-16:55	Soil Education	Adriana Ribon Universidade Estadual de Goiás, Câmpus Palmeiras de Goiás, Brazil
16:55-17:00	Guardian Steps: Reviving Ancient Terraces in Southeast Spain	Xavier Agulló Máñez University of Alicante, Spain
17:00-17:05	Healing the Burdened Soil: Science-Backed Restoration in the Spreča Valley	Emina Sijahović University of Sarajevo, Bosnia
17:05-17:30	**Discussion** Chair: Jinlong Dong, Institute of Soil Science, CAS	

Entrepreneur Sessions

Tuesday, June 9	Expo Center, Hall 4, Entrepreneur Area

Biofertilizers, Biocontrol & Biostimulants: From Science to Technology and Commercialisation

Organizers:

Deli Chen, Redmond Barry Distinguished Professor, The University of Melbourne; Director, ARC Research Hub for Smart Fertilisers

Qirong Shen, Chair, Academic Committee, Nanjing Agricultural University; Member, Chinese Academy of Engineering

Yuk Shing Cheng, Director, Centre for Sustainable Development Studies, Hong Kong Baptist University

Enjiang Cheng, Director-General, Global South Network for Sustainable Agriculture

Xia (Emma) Liang, Senior Researcher, The University of Melbourne

Dandan Wang, Senior Advisor, Global South Network for Sustainable Agriculture

Ella Williams, Adminstration, The University of Melbourne

Schedule	Title	Presenter
09:00 -09:30	Trichoderma Biofertilizer: From Mechanisms to Products	Qirong Shen Chair of Academic Committee, Nanjing Agricultural University
09:30-10:00	Recovery of Nitrogen from Livestock Waste— A Tale of Lignite	Deli Chen Redmond Barry Distinguished Professor, The University of Melbourne
10:00-10:20	Optimizing Nitrogen and Carbon Recovery from Livestock Wastes for Multiple Production and Environmental Benefits	Clayton Butterly Senior Lecturer; Dr. Brendon Costello, Research Fellow School of Agriculture, Food and Ecosystem Sciences, The University of Melbourne

Entrepreneur Sessions

10:20-10:40	Pricing Nitrogen Pollution to Move Sustainable Agriculture from Rhetoric to Accountability	Emma Liang Senior Research Fellow, The University of Melbourne
10:40-11:00	How Microbe-Organic Fertilizer Promotes Soil and Crop Health	Yan Ma Director of Institute of Agricultural Resources and Environment, Jiangsu Academy of Agricultural Sciences
11:30-11:50	Circular Agriculture: Waste to Value Solutions (Black Soldier Fly)	Xiaomei Ye Director of Circular Agriculture Research Center, Jiangsu Academy of Agricultural Sciences
11:50-12:10	Converting Food Waste Digestate into Value-Added Fertilizer Products	Jonathan Wong, Director of Research Center for Eco-Environmental Engineering, Dongguan University of Technology
12:10-12:30	Biochar-Based Organic Fertilizer: From Lab to Field	Lihong Xue Jiangsu Academy of Agricultural Sciences
13:30- 13:50	Advancing South-South Cooperation Through Agricultural Technology Cooperation for Sustainable Agriculture	Enjiang Cheng, Senior Advisor, Global South Network for Sustainable Agriculture
13:50-14:10	Government Policy & Farmer Behavior Change: Enabling Technology Adoption Through Institutional Frameworks	Yuk Shing Cheng Director of Center for Sustainable Development Studies, Hong Kong Baptist University
14:10-14:30	Development of Biological Control Solutions for Sustainable Pest Management in Digital Era	Feng Zhang Regional Director, CAB International (CABI)

Entrepreneur Sessions

14:30-14:50	Development of Biocontrol Agents for Horticulture Crops	Jiang Lu Director of Center for Viticulture and Enology, Shanghai Jiao Tong University
14:50-15:10	The Assistance of Functional Microorganisms on High Quality Development of Tropical Crops	Qingyun Zhao Researcher, Spice and Beverage Research Institute, Chinese Academy of Tropical Agricultural Sciences
15:10-15:30	Enhancing Drought and Salinity Resilience in Tomato Plants Using Plant Growth-Promoting Bacillus Species	Erandi Herath Researcher, The University of Melbourne
16:00-16:20	Introduction to Center's R&D in Environmental Technologies and Achievements Commercialization	Gu Ailiang Center Soil Remediation Research Institute (Shenzhen) Co., Ltd.
16:20-16:40	Healthy Soil, Premium Crops: Nutrilite Organic Innovation and Evidence from Long-Term Field Trials	Tingzhao Li Amway (Shanghai) Innovation & Science Co., Ltd
16:40-17:20	Case Study of Commercializing & Scaling Biological Products in China	Xianghe Agriculture Technology Group & Nanjing Woyou Biological Company
17:20- 17:30	Regional Peer Learning: ASEAN CONTEXT & TECHNOLOGY FIT	-

Entrepreneur Sessions

Thursday, June 11	Expo Center, Hall 4, Entrepreneur Area
New Book Launch	
Schedule	**Topic**
10:30–11:00	The IUSS Presidents Throughout One Hundred Years of Its History
11:00–11:30	Green Fingers on Ancient Farmland: Wisdom of Traditional Chinese Land Use
11:30–12:00	Frontiers in Soil Science

Workshops

Date	Time	Topic	Room/Area
8 June	13:15-15:15	Workshop 01: Author Workshop & Editorial Q&A: How to Publish Successfully in Soil Science Journals	Convention Center, Nanjing 206
8 June	16:30-18:00	Workshop 02: Advancing Research Integrity: Best Practices in Peer Review and Artificial Intelligence	Convention Center, Nanjing 206
10 June	10:30-12:00	Workshop 03: The Soil Lexicon - Co-shaping Memory, Culture, and Future	Expo Center, Hall 4, Entrepreneur Area
11 June	13:30-15:00	Workshop 04: Soil Profile Simulation Workshop with Recyclable Cartons	Expo Center, Hall 4, Entrepreneur Area
11 June	16:30-18:30	Workshop 05: Chinese Community-Supported Agriculture Networks and Participatory Guarantee Systems	Expo Center, Hall 6, 6201

Workshops

Monday, June 8		Room: Convention Center, Nanjing 206	
Workshop 01		**Author Workshop & Editorial Q&A: How to Publish Successfully in Soil Science Journals**	
Schedule	**Topic**	**Presenter**	**Abstract**
13:15-15:15	How to Strengthen Your Manuscript: Editorial Insights from Soil Biology & Biochemistry	Joann K. Whalen McGill University; Editor-in-Chief, Soil Biology & Biochemistry	This workshop, led by Prof. Joann Whalen (Editor-in-Chief of Soil Biology & Biochemistry), provides practical, transparent guidance on improving manuscript quality and increasing publication success in leading soil science journals like SBB. Topics include what editors look for, common reasons for early rejection and how to avoid them, how to present methods and results effectively, and strategies for navigating peer review comments. Following the presentation, an interactive Q&A/panel discussion (with invited panel from Elsevier editors: TBC - Kees Jan van Groenigen of Geoderma; Cezary Kabala of Catena; Felipe Bastida of Applied Soil Ecology; Xinhua Peng of Soil & Tillage Research; Brent Clothier of Agricultural Water Management; Lena Ma of Soil & Environmental Health) will allow participants to engage directly with the Editors-in-Chief for tailored advice.
	How to publish soil science research in top-tier journals?	Abel Barral Cuesta, Wiley; Deputy Editor of Ecology & Environment, Advanced Science	In this workshop, Abel Barral Cuesta – former editor at Nature Plants, Nature Ecology & Evolution and One Earth, and currently Deputy Editor for Ecology & Environment at Wiley's Advanced Science – will provide insight into what broad scope, high-impact journals seek in soil science papers. He will provide a view of current trends in soil science content in top-tier journals, shed light on elements that improve impact and retention of papers in them, and explain paper selection criteria by their editors. He will also reflect on the opportunity that different article formats bring, and provide some advice on how to write them. Lastly, he will share hints on how to shape submissions to make a strong case for interest in top-tier journals. After his presentation, the workshop will move forward to a Q&A session with Abel and other Wiley editors that will help attendees to better understand how editors think of papers and unveil the editorial blackbox in submission handling.

Workshops

Monday, June 8		Room: Convention Center, Nanjing 206
Workshop 02		**Advancing Research Integrity: Best Practices in Peer Review and Artificial Intelligence**
Schedule	**Presenter**	**Abstract**
16:30-18:00	Boris Kuzmanovic MDPI	This workshop explores two key aspects of modern scholarly communication: best practices in peer review and the growing role of artificial intelligence (AI) in scientific publishing. As research and publishing continue to evolve, maintaining quality, transparency, and integrity requires both rigorous peer-review standards and the responsible adoption of emerging technologies. The first session, Peer Review Guidelines: Best Practices for Authors and Reviewers, will provide practical guidance on conducting fair, transparent, and constructive peer review. Participants will learn how to prepare high-quality manuscripts, respond effectively to reviewer comments, and deliver objective, ethical, and actionable reviews. Common challenges in the review process and strategies for improving publication quality will also be discussed. The second session, AI in the Scientific Publishing Industry, will examine the impact of AI on manuscript preparation, editorial workflows, reviewer selection, plagiarism detection, language enhancement, and research discovery. The session will highlight both the opportunities and limitations of AI-driven tools, with a particular focus on ethics, transparency, and responsible use. Special attention will be given to how these practices support research quality, reproducibility, and scientific impact within the soil science community. The workshop aims to equip researchers, reviewers, and editors with practical knowledge to navigate the evolving publishing landscape while upholding the highest standards of research integrity. The workshop will be delivered by Boris Kuzmanovic, an author and publishing professional with more than six years of experience in scientific publishing and research integrity.

Workshops

Wednesday, June 10		Room: Expo Center, Hall 4, Entrepreneur Area
Workshop 03		**The Soil Lexicon - Co-shaping Memory, Culture, and Future**
Schedule	**Presenter**	**Abstract**
10:30-12:00	Jin Lipeng Associate Professor at Sichuan Fine Arts Institute	This workshop invites scientists, educators, and the public to come together and explore the many meanings of soil—not only as a scientific object, but as a living archive of memory, culture, and shared future. Through dialogue, sensory experience, and collective creation, participants will share personal stories of the land and engage in conversations around soil health, climate change, and local knowledge. Moving beyond data and disciplinary boundaries, we will co-create a collective artwork that reflects the deep connection between soil and humanity. Everyone is a co-creator of the soil lexicon. Join us in shaping a shared language for the future of soil.

Workshops

Thursday, June 11		Room: Expo Center, Hall 4, Entrepreneur Area
Workshop 04		**Soil Profile Simulation Workshop with Recyclable Cartons**
Schedule	**Presenter**	**Abstract**
13:30-15:00	Adriana Ribon Goiás University in Brazil	1. Using empty milk or juice cartons to simulate a soil body; 2. Drawing soil horizons on the cartons; 3. Applying glue and selecting different soil colors to illustrate the horizons.

Workshops

Thursday, June 11		Room: Expo Center, Hall 6, 6201	
Workshop 05		**Chinese Community-Supported Agriculture Networks and Participatory Guarantee Systems**	
Schedule	**Topic**	**Presenter**	**Abstract**
16:30-18:30	EcoHowFun: The Practice of Chinese Community-Supported Agriculture Networks and Participatory Guarantee Systems	Yan Shi EcoHowFun Yi Zhu Natural Mulching and No-Tillage Empirical Laboratory, Hechuren Agro-culture Heritage & Development Center Lipeng Jin Experimental Art School, Sichuan Fine Arts Institute	Agroecology and Community-Supported Agriculture (CSA) are gaining prominence as critical pathways to mitigate soil degradation, ensure food security, and promote sustainable agricultural development. In China, indigenized CSA networks, exemplified by initiatives such as EcoHowFun, utilize Participatory Guarantee Systems (PGS) to establish a trust-based mechanism. This approach not only reconfigures producer-consumer relationships but also elevates soil health cultivation into a collaborative community practice. These initiatives provide verifiable socio-economic models for agroecological implementation and resonate with core soil science research on soil microbiology, carbon sequestration, and agroecosystem diversity. As part of Session #504004 of the 23rd World Congress of Soil Science, this panel bridges cutting-edge soil science and grassroots agricultural innovation. The core discussion will focus on how Chinese CSA networks, through PGS, guide farmers in improving soil properties. Furthermore, The session will also assess how these community-based practices contribute to the "One Health" vision, exploring actionable pathways to synergistically advance ecological integrity and human well-being.

Parallel Sessions

Monday, June 8	Room: Convention Center, Nanjing 209
Session 101001	**Advances in Soil Morphology and Micromorphology: Unveiling the Earth's Hidden Resource** **Convener:** Fabio Terribile, Università di Napoli Federico II, Italy **Co-Convener:** Richard J Heck, University of Guelph, Canada

Schedule	ID	Title	Presenter
13:15-13:18	-	Presentation of the session	Fabio Terribile
13:18-13:31	34521	IUSS Digital Soil Thin Section Collections Working Group	Richard J. Heck School of Environmental Sciences, University of Guelph, Guelph, Canada
13:31-13:44	33476	SEM-EDS and Micromorphological Evidence of Kaolinite Hematite Interactions in Ferruginous Duricrusts from Devonian Sediments of the Parnaíba Basin (Central North Brazil)	Daniela Schievano de Campos University of São Paulo
13:44-13:57	32975	Preferential spatial co-location of organic matter with identified mineral phases in intact soil microstructures	Yahan Hu TUM School of Life Sciences, Technical University of Munich

Parallel Sessions

Monday, June 8 (Session 101001)			
13:57-14:10	34240	Proto-soils of extreme environments: understanding chemical composition at a microscale with the use of Raman spectroscopy	Nikita Mergelov Department of Soil Geography and Evolution, Institute of Geography RAS, Moscow, Russia
14:10-14:23	34168	Segmentation-Guided Conditional Diffusion with Optical Flow Constraints for 3D Interpolative Super-Resolution of Soil CT Images	Meihui Song Beijing Forestry University
14:23-14:36	36293	Micropedology and Artificial Intelligence - evolution of quantitative approachs	Lilit Pogosyan Red de Ecología Funcional, Instituto de Ecología AC INECOL
14:36-14:49	33018	Morphological Characterization and Mapping-Based Classification of Soils in Two Locations in Southwest Nigeria	Temitope S. Babalola Department of Soil Science and Land Resources Management, Federal University Oye-Ekiti
14:49-15:02	30532	The Comparative Investigation of Soil Morphological Organization in Polar Urals (Yamal, Russia) and Qilian Mountains (Qinghai-Tibet Plateau, China)	Evgeny Abakumov Saint-Petersburg State University
15:02-15:15	31881	Quantitative analysis of soil erosion crack dimensions caused by wind-driven rainfall using image processing	Seyed Hamidreza Sadeghi Professor (Corresponding Author), Department of Watershed Management Engineering, Faculty of Natural Resources, Tarbiat Modares Resources University

Parallel Sessions

Friday, June 12	Room: Expo Center, Hall 8, 8203
Session 101002	**Micromorphology as a Tool for Understanding the Evolution of Soils and Environments in Natural and Human-Impacted Landscapes** **Convener:** Daniela Sauer Georg-August-University Göttingen, Germany **Co-Conveners:** Fabio Terribile University of Naples Federico II, Italy Maria Bronnikova, Texas Tech University, USA; Institute of Geography Russian Academy of Sciences, Russia

Schedule	ID	Title	Presenter
09:00-09:15	34148	Quaternary landscape dynamics of the Venetian Pre-Alps (NE Italy) revealed through paleosols micromorphology	Laura Fracasetti Department of Geosciences, University of Padova, Padua, Italy
09:15-09:30	32380	Final stage of loess accumulation in the periglacial zone of the Northern Caspian region.	Marina Lebedeva V.V. Dokuchaev Soil Science Institute
09:30-09:45	34548	Formation and Evolution of Volcanic Soils in Central Apennine Mountains (Molise, Italy)	Alessio Manzo University of Molise
09:45-10:00	32913	Micromorphological Insights into Intra-Urban Spatial Dynamics: A Case Study from Oudenaarde (Belgium)	Meihui Li Vrije Univeristeit Brussel

Parallel Sessions

Friday, June 12 (Session 101002)			
10:00-10:15	32717	Stepped Canal and Levigation Pools in Teotihuacan, a study through their micromorphological and hydraulic relationships	Ma. del Carmen Gutiérrez Castorena Programa de Edafología. Colegio de Postgraduados.
10:15-10:30	36107	Species-Specific Impact of Earthworm Ecological Groups on Soil Coprolite Physico-Chemical Properties and Microstructure	Agnieszka Józefowska Department of Soil Science and Agrophysics, University of Agriculture in Krakow, Krakow, Poland
10:30-10:45	32402	The Micromorphology of Brazilian Oxisols (Latossolos): variability and fertility connections of the most representative agricultural soil in the tropics	Carlos Schaefer Federal University of Rio de Janeiro, Geography Department
11:15-11:30	36376	Microscopic Morphological Characteristics of the Albic Layer in the Black Soil Region of Northeast China	Xin-Yu Liu; Zhong-Xiu Sun; Si-Yi Duan; Wei-Wen Qiu; Ying-Ying Jiang Shenyang Agricultural University
11:30-11:45	34561	Micromorphological mechanisms reveal 45-year Anthropogenic barrier layer formation in Northeast China's Black Soil Region: pore connectivity collapse drives sustainable management imperative	Xiao-Miao Yu Shenyang Agricultural University
11:45-12:00	32224	Integrating Micro- and Submicromorphological Data for Diagnosing Redoximorphic Conditions in Soils of Topographic Depressions in the Oka-Don Lowland	Kornilova Anastasiia Lomonosov Moscow State University; Dokuchaev Soil Science Institute

Parallel Sessions

Monday, June 8	Room: Expo Center, Hall 4, 4202
Session 102001	**Magnetic Enhancement of the Soils in Urban/Industrial Areas: Sources and Properties of Anthropogenic Magnetic Particles and Its Influences on Soil Genesis**
	Convener: Xue-Feng Hu, School of Environmental and Chemical Engineering, Shanghai University, Shanghai 200444, China **Co-Convener:** Ying Lu, South China Agricultural University

Schedule	ID	Title	Presenter
13:15-13:30	36346	Vertical distribution of magnetic property of urban soil profiles in Shanghai and its environmental implications	Kokyo Oh Center for Environmental Science in Saitama
13:30-13:45	34998	Magnetic Characteristics of Typical Soils in Guangdong Province and Their Responses to Parent Materials and Land Use	Ying Lu South China Agricultural University
13:45-14:00	31629	Magnetic properties and geochemical elements, climate change in loess/paleosol from the eastern Chinese Loess Plateau	Pingguo Yang Shanxi Normal University
14:00-14:15	33712	Mineral magnetic characterization of surface soil in an industrial area within Guangzhou city: Implications for heavy metal pollution monitoring	Tingping Ouyang South China Normal University
14:15-14:30	34285	Study on Optically Stimulated Luminescence Dating and developmental model of alpine meadow soil in ThreeRiver Headwater Region	Xianba Ji Qinghai Normal University
14:30-14:45	35069	Impacts of Vehicular Non-Exhaust Emissions on Magnetic Enhancement and Heavy Metal Accumulation in Urban Road Dust	Xin-Ming Ying Shanghai University

Parallel Sessions

Thursday, June 11	Room: Expo Center, Hall 4, 4201
Session 102003	**Soil Structure and Ecosystem Functioning in Earth's Critical Zone**
	Convener: Gary Feng, USDA-ARS, Genetics and Sustainable Agricultural Research Unit **Co-Conveners:** Wei Dai, Louisiana State University-Agricultural Center, 262 Research Station Dr., Bossier City, LA 71112. Xi Zhang, Department of Biosystems Engineering and Soil Science, University of Tennessee, Knoxville, TN 37996.

Schedule	ID	Title	Presenter
11:15-11:30	31887	Redefining soil structural vulnerability to enhance ecosystem services in a changing world	Wei Hu New Zealand Institute for Bioeconomy Science Limited, Plant & Food Research Group
11:30-11:45	32728	Silicon cycling model and its roles on soil evolution in a subtropical critical zone	Jin-Ling Yang Institute of Soil Science, Chinese Academy of Sciences
11:45-12:00	32818	Implications of land uses and land cover conversion on soil quality in the Lower Alwero watershed Gambela Region Western Ethiopia	Shimeles Damene School of Development Studies, College of Social Sciences, Arts, and Humanities (CSS-ArtH), Addis Ababa University
12:00-12:15	33153	Microstructural controls on carbon cycling and nematode communities across land-use agroecosystems and climate scenarios	Mengqi Wu Department of Soil System Science, Helmholtz-Centre for Environmental Research - UFZ, Halle, Germany

Parallel Sessions

Thursday, June 11 (Session 102003)			
12:15-12:30	34180	Effects of Increased Temperature, Elevated CO2 Concentrations and Drought on Soil Structure and Gas Diffusion in a Submontane Grassland Soil	Vincent Felde Leibniz University Hannover
13:30-13:45	33196	Straw incorporation mitigates polyethylene residual film-induced suppression of fungal necromass	Conghui Liu Northwest Agricultural and Forest University
13:45-14:00	33678	Geodiversity-Driven Patterns of Prunus ledebouriana in Tarbagatay Mountain Landscapes of SE Kazakhstan	Malgorzata Suska-Malawska Faculty of Biology, University of Warsaw
14:00-14:15	34037	Continuous 13C-CO2 labelling reveals mechanisms of SOC stabilization in constrained, poorly structured soil	Katherine Weigh Department of Primary Industries and Regional Development, NSW
14:15-14:30	34084	Size - Specific Effects of Intra-Aggregate Pore Size Distribution on Soil Aggregate Stability	Chaonan Liu Northeast Forestry University
14:30-14:45	34268	Evolution of SRO Fe oxides in soils along a paddy field chronosequence: A Fe isotope perspective	Zhao Wang Institute of Soil Science, Chinese Academy of Sciences

Parallel Sessions

Thursday, June 11 (Session 102003)			
16:30-16:45	34574	Assessing Soil Function Loss in Traditional Gold Mining Landscapes Using Function-Based Soil Quality Indicator Models	Meaza Zenebe Gerehans Raya University, Tigray, Ethiopia; Mekelle University, Tigray, Ethiopia
16:45-17:00	35005	Nonstationary response evolutionary mechanisms of aggregate binding agents in Quaternary red soils during 400 years of cultivation	Si-Yi Duan Shenyang Agricultural University
17:00-17:15	35256	Deep soil nitrate accumulation depends on the regolith structure and surface land management	Shunhua Yang State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences
17:15-17:30	35358	Pore-Scale Structural Regulation of Soil Carbon Mineralization during the Corn Growing Season in a Yellow-Brown Soil	Tian Tian Anqing Normal University
17:30-17:45	35901	Stabilizing Soil Aggregates with Synthetic Polymers: A Wet Adhesion Perspective	Gang Li TheHongKongPolytechnicUniversity
17:45-18:00	36116	Spatial distribution and influencing factors of the argillic horizon in the Northeast Black Soil Region	Xi-Ting zhang Shenyang Agricultural University

Parallel Sessions

Monday, June 8	Room: Expo Center, Hall 4, 4201
Session 102005	**Soil Survey Technology and Spectral Database** **Conveners:** Yuguo Zhao, Institute of Soil Science, Chinese Academy of Sciences Jianping Qian, Chinese Academy of Agricultural Sciences **Co-Conveners:** Ganlin Zhang, Nanjing Institute of Geography & limnology, Chinese Academy of Sciences Wenbin Wu, Institute of Agriculture Resources and Regional Planning, Chinese Academy of Agriculture Sciences Changbao Ma, Cultivated land quality monitoring and protection center, Ministry of Agriculture and Rural Affairs, People's Republic of China Eyal Ben-Dor, Tel Aviv University Yijian Zeng, University of Twente in Enschede Zhou Shi, Zhejiang University

Schedule	ID	Title	Presenter
13:15-13:30	35624	The 3rd National Soil Survey of China: Integrating the Past and the Future	Ganlin Zhang Institute of Soil Science, Chinese Academy of Sciences
13:30-13:45	33387	Technical Approaches and Practices for Assessing Agricultural Suitability of Soils in China	Ke-ning Wu China University of Geosciences, Beijing
13:45-14:00	35633	Uncovering the spatial heterogeneity and drivers of grassland soil quality in Northwest China	Laiming Huang Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences
14:00-14:15	31712	Environmental factors influencing soil particle size distribution and their spatial distribution characteristics in the Tarim River Basin	Yang Hu Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences
14:15-14:30	35191	A Novel Soil Type Inference Method Using AI Large Language Models	Jie Liu Institute of Soil Science, Chinese Academy of Sciences

Parallel Sessions

Monday, June 8 (Session 102005)			
14:30-14:45	33774	The National Soil Archive of China	Zhiying Guo, Yuguo Zhao Institute of soil science, Chinese Academy of Sciences
16:30-16:45	33475	Standards and Protocols for Soil Spectral Reflectance to Enable Remote and Precision Soil Mapping	Eyal Ben Dor Tel Aviv University
16:45-17:00	33761	Building a National Soil Spectral Library from China's Third Soil Survey	Changkun Wang; Yuguo Zhao Institute of Soil Science, Chinese Academy of Sciences
17:00-17:15	35155	A Global Transformer Framework for Aligned Soil Spectral Analysis Across Sensors and Continents	Nikolaos Tziolas University of Florida
17:15-17:30	35186	Toward Global Soil Spectral Interoperability: Domain-Invariant Latent Embeddings with Federated Learning	Nikolaos Tziolas University of Florida
17:30-17:45	34451	Construction of Hainan Soil Spectral Library Driven by Large Model and Mapping of Organic Matter at 30m Resolution	Zhen Wang Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences
17:45-18:00	34589	Effects of Soil pH on Spectral Inversion of Soil Organic Matter in Survey-Based Soil Spectral Libraries	Tianqi Lv State Key Laboratory of Efficient Utilization of Arid and Semi-arid Arable Land \/ Key Laboratory of Agricultural Remote Sensing, Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences

Parallel Sessions

Tuesday, June 9	Room: Expo Center, Hall 5, 5203
Session 104002	**Classification Systems for the Anthropocene and Human-Made Soils** **Conveners:** Cornie van Huyssteen; Chair - Commission 1.4: Soil Classification, University of the Free State, South Africa Cezary Kabala, chair of the IUSS Working Group WRB, Wroclaw University of Environmental and Life Sciences, Poland **Co-Conveners:** David Badia-Villas; Vice-chair - Commission 1.4: Soil Classification, Universidad Zaragoza, Spain Lúcia Anjos; Universidade Federal Rural do Rio de Janeiro, Brazil Joey Shaw; USDA-NRCS, USA Stephan Mantel, vice-chair of the IUSS Working Group WRB, ISRIC World Soil Information, Wageningen, The Netherlands

Schedule	ID	Title	Presenter
11:15-11:30	31827	The definitions of field characteristics in the WRB Field Guide	Peter Schad Technical University of Munich
11:30-11:45	34472	Towards a simplified key and groupings of the World Resource Base for Soil Resources (WRB)	Stephan Mantel ISRIC World Soil Information, Wageningen, the Netherlands
11:45-12:00	33935	Soil classification as a carrier of functional information in viticultural terroir: linking pedogenesis and wine metabolomics	Paola Bambina University of Palermo

Parallel Sessions

Tuesday, June 9 (Session 104002)			
13:30-13:45	32395	History of the concept of Technosols, and other soils in urban areas	Wolfgang Burghardt Soil Technology, Faculty of Biology, University Duisburg-Essen
13:45-14:00	32640	Extending Technosols? The status of human-transported materials in soil classification	Marcin Świtoniak Nicolaus Copernicus University in Toruń, Faculty of Earth Sciences and Spatial Management, Department of Soil Science and Landscape Ecology
14:00-14:15	31943	Soils constructed and transformed by different cultures in the Mexico Basin: from the Teotihuacans to the Aztecs	Ma. del Carmen Gutierrez-Castorena Colegio de Postgraduados
14:15-14:30	34517	Soils of stone-wall bench terraced anthroscapes: A proposal for their classification	Jaime Boixadera Lleida University
14:30-14:45	33014	Proposals for Urbic Technosols in World Reference Base	Tatiana V. Prokof'eva Faculty of Soil Science, Lomonosov Moscow State University
14:45-15:00	33150	Towards better classification of human-altered soils In WRB: A systematic framework and new qualifiers	Stefaan Dondeyne Department of Geography, Ghent University; Gembloux Agro-Bio Tech, Université de Liège; Dep. of Soil Science and Land Resources, Universitas Padjadjaran
15:00-15:15	33692	The rationale behind the revision of the German Soil Systematics	Einar Eberhardt Dep. Groundwater and Soil, Bundesanstalt für Geowissenschaften und Rohstoffe (BGR)
16:30-18:30	-	Commission 1.4 WRB Business Meetings	-

Parallel Sessions

Friday, June 12	Room: Expo Center, Hall 4, 4203
Session 105001	**Advancing Pedometrics**
	Convener: Alessandro Samuel-Rosa, Federal Technological University of Paraná, Brazil

Schedule	ID	Title	Presenter
09:00-09:15	35352	The Uncertainty of the Carbon Sequestration Potential of Arable Soils in European Russia at different scales	Joulia L. Meshalkina Soil Science Faculty, Lomonosov Moscow State University, Moscow, Russia
09:15-09:30	35272	Exploring the controlling factors of soil spatial heterogeneity with high-resolution environmental covariates: A case study of wildfire-affected and reclaimed artificial forests in Japan	Takuya O. Takahashi Department of Geography, Tokyo Metropolitan University
09:30-09:45	35181	Use of Geophysical Methods for Mapping Eucalyptus Root Systems	Marcio Rocha Francelino Universidade Federal de Viçosa
09:45-10:00	34586	Pedological controls reshape global projections of soil respiration and soil carbon-climate feedbacks under climate change scenarios	Carlos Schaefer GeoCiS (Geotechnologies in Soil Science Research Group), Department of Soil Science, Luiz de Queiroz College of Agriculture (ESALQ), University of São Paulo, Piracicaba, Brazil
10:00-10:15	32442	Climate and Land Use Independent Modelling of Soil Carbon Stocks	Yuting Dai Institute of Subtropical Agriculture Chinese Academy of Sciences
10:15-10:30	32253	AI Multiagent Systems as Partners in Discovery and Knowledge Synthesis for Soil Science Research	Budiman Minasny The University of Sydney

Parallel Sessions

Monday, June 8	Room: Expo Center, Hall 4, 4203
Session 106003	**Reading Soil Memory Across Geological Timescales: Traditional Insights and Novel Approaches** **Conveners:** Francisco Sérgio Bernardes Ladeira, Institute of Geosciences, State University of Campinas (UNICAMP), Brazil Maria Bronnikova, Texas Tech University, USA; Institute of Geography Russian Academy of Sciences, Russia **Co-Conveners:** Brad Sion, Desert Research Institute, USA Xue-Feng Hu, Shanghai University, China

Schedule	ID	Title	Presenter
13:15-13:30	33430	New findings from the Baix loess profile (Rhône Rift Valley, southern France) in the climatic transition zone between Central and Southern Europe	Daniela Sauer Department of Physical Geography, Institute of Geography, University of Göttingen, Germany
13:30-13:45	35185	The basalt - laterite sequences in the Leizhou Peninsula, South China: Indicating multiple alternations between volcanic eruption and laterite formation in the tropical region since the Middle Pleistocene	Xue-Feng Hu Shanghai University
13:45-14:00	34992	Distribution, characteristics, and formation mechanism of siliceous restrictive layers in the black soil region of Northeast China	Zhong-Xiu Sun Shenyang Agricultural University
14:00-14:15	34408	Paleosols as a key for piecing together the past climates and the intricacies of soil processes	Andrey Alekseev Institute of Physicochemical and Biological Problems in Soil Science of Russian Academy of Sciences
14:15-14:30	34243	Acid sulphate pedogenesis of the geological past of the Earth and beyond it	Tatiana Alekseeva Institute of Physicochemical and Biological Problems in Soil Science of Russian Academy of Sciences, Pushchino, Russia

Parallel Sessions

Monday, June 8 (Session 106003)			
14:30-14:45	32900	Informational role of buried Podzols in reconstruction of Holocene pyrogenic activity: a case study of Northern European Russia	Dmitriy Petrov Department of Soil Geography and Evolution and Radiocarbon Laboratory, Institute of Geography, Russian Academy of Sciences
14:45-15:00	33601	Earthen archaeological sites as archives of information on the evolution of soils and paleoclimate of the second half of the Holocene, dry steppe zone, Southern Cis-Urals, Russia	Alyona Sverchkova Institute of Geography, Russian Academy of Sciences
15:00-15:15	33073	Deciphering the Construction of the Ancient City of Palenque and its Effects on the Landscape	Laurin Reim Chair of Soil Sciences, School of Life Sciences, Technical University of Munich; Soil Biophysics and Environmental Systems, School of Life Sciences, Technical University of Munich; MITIGATE GmbH
16:30-16:45	33013	Paleosols and Their Classification in US Soil Taxonomy	John M. Galbraith School of Plant and Environmental Sciences, Virginia Tech
16:45-17:00	36611	Radiocarbon dating: new approaches in soils and paleosols - are these new opportunities or problems?	Elya Zazovskaya Center for Applied Isotope Studies, University of Georgia
17:00-17:15	34502	Paleoenvironmental significance of earthworm aestivation chambers from Cretaceous paleosols of Araripe Basin, Brazil	Francisco Sérgio Bernardes Ladeira Unicamp
17:15-17:30	35485	Palaeobotanical records from soil infill of rodent burrows reveal Mid- to Late-Holocene environmental dynamics: A case study from the central chernozem region of Russia	Valerii Pimenov Lomonosov Moscow State University; Belgorod State National Research University
17:30-17:45	35098	Revisiting krotovina formation using luminescence dating - a case study from NE China	Aimin Zhang Institute of Soil Science, Chinese Academy of Sciences
17:45-18:00	34874	Testing the Transferability of Paleosol Geochemical Proxies in Tropical Maastrichtian Climates: Evidence from India	Anjali Kumari Panjab University, Chandigarh, India; Department of Earth Science, Indian Institute of Technology Bombay, Mumbai
18:00-18:15	36111	Climate-driven silicate weathering and biogeochemical coupling in black soils	Cheng-Cheng Zhang Shenyang Agricultural University

Parallel Sessions

Tuesday, June 9	Room: Expo Center, Hall 4, 4202
Session 107001	**Permafrost-Affected Soils of the Changing High-Latitude and High-Altitude Environments** **Convener:** Alexey V. Lupachev, PhD in Biology (Soil Science), Senior research scientist in the Institute of physico-chemical and biological problems in soil science RAS, Pushchino, Russian Federation. Chair, Commission 1.7/3.8: Permafrost Affected Soils IUSS **Co-Conveners:** Adrian Unc, PhD in Soil Science, University of Guelph, Agronomist, soil scientist and environmental microbiologist, Professor at the Memorial University of Newfoundland and affiliated with the McGill University; Co-chair, Commission 1.7/3.8: Permafrost Affected Soils IUSS Alexander P. Ginzburg, PhD student in Biology (Soil Science) in the Institute of physico-chemical and biological problems in soil science RAS, Pushchino, Russian Federation

Schedule	ID	Title	Presenter
09:00-09:15	34431	Climate-Induced Changes in Soil-Forming Factors and Processes in Permafrost-Affected Areas: Positive and Negative Trends (A Review)	Sergey Goryachkin Institute of Geography, Russian Academy of Sciences
09:15-09:30	31549	Soil-Permafrost Complexes of the Russian North-East Arctic Accumulative Sea Coasts: Structure, Properties, Diagnostics, Ecological Functions	Aleksei Lupachev Institute of Physicochemical and Biological Problems of Soil Science, Russian Academy of Sciences
09:30-09:45	33690	Heterogeneity of cryogenic soil cover related to development of patterned ground of Kolguyev Island (Barents Sea)	Anastasia Shmatova Institute of Geography, Russian Academy of Sciences

Parallel Sessions

Tuesday, June 9 (Session 107001)			
09:45-10:00	32531	Features of Soil Formation in Khasyreys (Tundra Thermokarst Depressions)	Alexandr Pastukhov Institute of Biology Komi SC UB RAS (Syktyvkar, Russia)
10:00-10:15	32526	Landscape Conditions of Soil Formation in Drained Lake Basins of the Russian European North	Dmitry Kaverin Institute of Biology Komi SC RAS
10:15-10:30	31822	Structural Features of Soils and Upper Permafrost of Eastern Chukotka Coastal Plains	Nikita D. Samokhvalov Lomonosov Moscow State University
10:30-10:45	31795	Suggestions for Classifying Soils of the Retrogressive Thaw Slumps Impact Zone in Future Russian and International Soil Taxonomies	Alexander P. Ginzburg Institute of Physico-Chemical and Biological Problems in Soil Science RAS
10:45-11:00	36166	Organic-matter rich soils hidden inside alpine periglacial blockfields: paleosols or aeolian deposits?	Michele E. D'Amico DISAA - University of Milano
11:15-11:30	35940	Soil structural transformation under multiple freeze-thaw cycles with comprehensive morphological and topological analysis: the hypothesis of periodicity	Tolstygin Kirill D. Laboratory of digital twins of agricultural landscapes, Dokuchaev Soil Science Institute, Moscow, Russia
11:30-11:45	34740	Characterizing Pan-Arctic Soil Organic Carbon: A Comprehensive Database of Particulate and Mineral-Associated Fractions	You Jin Kim Kyung Hee University
11:45-12:00	32320	Enzymatic activity in podzols of the north of Yamalo-Nenets Autonomous Okrug	Marina Rozanova Faculty of Soil Science, Lomonosov Moscow State University

Parallel Sessions

Tuesday, June 9 (Session 107001)			
13:30-13:45	33459	Minerals and Peroxidases Regulate Soil Carbon Stability in Permafrost	Guanghui Yu Tianjin University
13:45-14:00	31913	Wildfires accelerate permafrost area loss via reducing soil organic matter	Dan Zhu College of Urban and Environmental Sciences, Peking University
14:00-14:15	34401	Assessment of Carbon Stocks in Soils of the Western Siberian North	Maria Strizhakova Lomonosov Moscow State University, Faculty of Soil Science, Moscow, Russia
14:15-14:30	36617	Soil organic carbon stock assessment in cryoturbated turf/grass mounds in Kobresia Medows, Qinghai-Tibetan Plateau	Chien-Lu Ping University of Alaska Fairbanks
14:30-14:45	33389	Environmental controls on soil organic matter composition across a glacial-landscape gradient: A case study of debris-covered glaciers in Gongga Mountain, southwest China	Wenjing Mao Institute of Mountain Hazards and Environment, Chinese Academy of Sciences; University of Chinese Academy of Sciences
14:45-15:00	32539	Freeze-Thaw-Driven Soil Moisture Return Significantly Contributes to Spring Phenology on the Warming Qinghai-Tibet Plateau	Hanrui Zhao State Key Laboratory of Hydraulics and Mountain River Engineering, College of Water Resource and Hydropower, Sichuan University
15:00-15:15	36618	Mattic layer ruptures in the Third pole: mechanisms, distribution, consequences, and monitoring	Zhuodong Jiang Shenyang Agricultural University

Parallel Sessions

Tuesday, June 9 (Session 107001)			
16:30-16:45	34886	Vertical Distribution of Methane Concentration in Permafrost-Affected Soils of Central Yakutia	Nikita I. Tananaev North-Eastern Federal University, Yakutsk, Russia; Vitus Bering Kamchatka State University, Petropavlovsk-Kamchatsky, Russia
16:45-17:00	32894	Greenhouse Gas Fluxes from Different Species of Epigeic Lichen Species on Arctic Tundra Cryosols	Anastasia I. Matvienko Sukachev Institute of Forest SB RAS, Federal Research Center "Krasnoyarsk Science Center SB RAS"
17:00-17:15	32014	Greenhouse gas fluxes by the epiphytic lichen Bryoria in response to projected moisture increase in boreal forests underlain by thawed permafrost soils	Oxana V. Masyagina Sukachev Institute of Forest SB RAS, Federal Research Center "Krasnoyarsk Science Center SB RAS"
17:15-17:30	32000	The CO2 and CH4 fluxes from the epiphytic lichen Evernia mesomorpha collected in boreal forest underlain by cryosols	Svetlana Y. Evgrafova Sukachev Institute of Forest SB RAS, Federal Research Center "Krasnoyarsk Science Center SB RAS"
17:30-17:45	34352	Soils of European Arctic cities under climate change	Andrey Dolgikh Institute of Geography, Russian Academy of Sciences
17:45-18:15	-	Closing of the session, overall conclusions, statements and resolution	Alexey Lupachev, Aleksandr Ginzburg

Parallel Sessions

Tuesday, June 9	Room: Expo Center, Hall 4, 4201
Session 108001	**Advances in Remote Sensing for Soil Property Mapping** **Convener:** Miao Lu, State Key Laboratory of Efficient Utilization of Arid and Semi-arid Arable Land in Northern China, Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences, Beijing 100081, China **Co-Conveners:** Qiangyi Yu, State Key Laboratory of Efficient Utilization of Arid and Semi-arid Arable Land in Northern China, Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences, Beijing 100081, China Xiaolin Sun, College of Agriculture, Guangxi University, Nanning 520004, China Xianli Xie, State Key Laboratory of Soil & Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences, No.298 Chuangyou Road, Jiangning District, Nanjing, China

Schedule	ID	Title	Presenter
13:30-13:45	35457	Mapping Soil Salinity with Satellite Embeddings and Environmental Covariates	Peng Fu Louisiana State University AgCenter, Louisiana State University
13:45-14:00	35192	A Meta Learning Framework for Spatio-temporal Mapping of Cropland Topsoil pH in Southern China	Nuo-Xi Qiu University of Chinese Academy of Sciences; Institute of Soil Science，Chinese Academy of Sciences
14:00-14:15	32592	Intelligent Monitoring of Soil Salinization by Integrating Agronomic Features	Miao Lu Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences
14:15-14:30	36597	A Property-Dependent Strategy for Digital Soil Mapping: Optimizing Sentinel-2 Time-Series for Stable and Dynamic Soil Attributes	Kriuchkov Nikita Faculty of Biology, Shenzhen MSU-BIT University, Shenzhen, China

Parallel Sessions

Tuesday, June 9 (Session 108001)			
14:30-14:45	34214	Multi-view hyperspectral feature can improve soil property retrieval	Lixia Ma Institute of Soil Science, Chinese Academy of Sciences
14:45-15:00	33557	Accurate Time-Series Retrieval of Soil Salinity from CYGNSS Data by Physics-Based Surface Correction and Semi-Empirical Model	Li Wang The Institute of Agricultural Resources and Regional Planning Chinese Academy of Agricultural Science
15:00-15:15	35156	Physically supervised harmonic framework for spatial characterization of apparent soil thermal diffusivity between 5 and 10 cm	Martín Francia Department of Soils and Water, Faculty of Agronomy, Universidad de la República, Montevideo, Uruguay
16:30-16:45	33135	Soil Reflectance Composite and Terrain Attributes for Digital Soil Mapping in a Mediterranean Cropland District	Simone Priori University of Tuscia, Department of Agriculture and Forest Sciences
16:45-17:00	32778	Integrating UAV-Mounted Gamma-Ray Spectrometry and Soil Laboratory Analysis to Characterize Sediment Erosion, Composition, and Pollution in Vineyards	Liam Delaney Stellenbosch University
17:00-17:15	32228	Geostatistical fusion of field and remote sensing data for assessing soil salinity in southern region of Morocco	Mohamed Ghassan Center for Sustainable Soil Sciences,UM6P, Mohammed VI Polytechnic University
17:15-17:30	31944	Integrating Remote Sensing and Soil Drainage Mapping to Predict Salinization Risk	Grace Gowera University of Saskatchewan
17:30-17:45	31841	Study on the coupling relationship between agricultural water and soil resources carrying capacity and grain production capacity in typical black soil regions of Northeast China	Sidi Wang Shenyang Agricultural University

Parallel Sessions

Tuesday, June 9	Room: Expo Center, Hall 4, 4201
Session 108002	**Democratizing Digital Soil Mapping: Innovative Technologies for Global Soil Services and Solutions** **Convener:** Asim Biswas, University of Guelph **Co-Conveners:** GanLin Zhang, Nanjing Institute of Geography and Limnology, Chinese Academy of Sciences Zhou Shi, Zhejiang University Songchao Chen, Zhejiang University Lin Yang, Renmin University of China

Schedule	ID	Title	Presenter
09:00-09:05	-	Introduction of the Session	Asim Biswas
09:05-09:20	33545	Innovative Technologies for European and Global Soil Services and Solutions -SoilWise Project Achievements	Tomas REZNIK Masaryk University
09:20-09:35	35810	Projected intensification of soil salinization in global drylands under future aridity increase	Dietian Yu Zhejiang University
09:35-09:50	32893	Future Projections of Global Belowground Net Primary Productivity in Response to Climate Change	Menghan Li Central China Normal University
09:50-10:05	33001	A Multi-Source Product Assessment and Uncertainty-Aware Modeling Framework for SOC Mapping in China	Xunjie Ma Sichuan Agricultural University
10:05-10:20	32436	The spatiotemporal variation in soil inorganic carbon	Xiaodong Song Institute of Soil Science, Chinese Academy of Sciences

Parallel Sessions

Tuesday, June 9 (Session 108002)			
10:20-10:35	34412	Integrating Proximal and Remote Sensing to Cross-scale Quantify Soil Organic Carbon and Moisture Dynamics via Multi-model Learning	Sheng Wang Pioneer Center Land-CRAFT, Department of Agroecology, Aarhus University, Aarhus, 8000, Denmark
10:35-10:50	36497	UAV assisted high-resolution mapping of soil organic carbon and nitrogen in the mattic layer of the Tibetan alpine meadow	Shuo-Peng Zhang Shenyang Agricultural University
10:50-11:00	-	General Q&A	Asim Biswas
11:15-11:28	35232	Digital Soil Mapping Plus Complexity Analysis: an Effective Approach to Identify Sensitive Areas of Landscape Evolution	Shuran Gao BeijingNormalUniversity
11:28-11:41	34506	Warming and Drying Patterns across Iran: A Three-Decade Remote Sensing Perspective on Land Surface Temperature, Soil Moisture, and Vegetation Dynamics	Farnaz Ahmadi Soil Science Department, University of Tehran, Karaj, Iran
11:41-11:54	319B11	Innovation in Large-scale Soil Pollution Investigation Driven by Multi-source Data: A Transition from Grid-based to Precision-based Approaches	Guanlin Guo Technical Centre for Soil, Agriculture and Rural Ecology and Environment, Ministry of Ecology and Environment
11:54-12:07	33855	Predicting Textural Classes Using GPR-derived Geophysical Data and Optimized Machine Learning in Subtropical Forests	Jairo Calderari de Oliveira Junior Federal University of Parana (Department of Soil Science)
12:07-12:25	-	General Q&A	Asim Biswas
12:25-12:30	-	Closing	Asim Biswas

Parallel Sessions

Tuesday, June 9	Room: Expo Center, Hall 4, 4203
Session 108003	**Leveraging Site and Spatial Data for Soil Monitoring** **Convener:** Qiangyi Yu, Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences **Co-Conveners:** Bingbo Gao, China Agricultural University Songchao Chen, Zhejiang University Wenbin Wu, Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences

Schedule	ID	Title	Presenter
13:30-13:45	33045	Low-Cost Sensors for Monitoring Soil Condition in Landscape Restoration	Vanessa Wong Monash University
13:45-14:00	34934	Step towards a 1:100,000-scale Soil Map of Italy supporting the implementation of a national soil monitoring network and service	Giovanni L'Abate CREA Council for Agricultural Research and Economics
14:00-14:15	33548	Using legacy data and geostatistics for assessing soil organic carbon change in the Sele River Plain (southern Italy)	Gabriele Buttafuoco National Research Council of Italy, Institute for Agricultural and Forest Systems in the Mediterranean, Rende CS. Italy
14:15-14:30	32614	Assessing human activity impacts on soil nutrient condition in Australia.	Ho Jun Jang The University of Sydney
14:30-14:45	320B13	From Mars to Farmland: Next-Generation In-Situ Soil Composition Monitoring Technology for Agricultural Fields	Daming Dong National Research Center of Intelligent Equipment for Agriculture, Beijing Academy of Agriculture and Forestry Sciences
14:45-15:00	320B12	Development and Applications of a Soil Spectral Library in Hainan, China	Zhen Wang Institute of Agricultural Resources and Regional Planning, CAAS
15:00-15:15	32118	Standardized Soil Water Deficit Index for Monitoring Agricultural Drought in India with a Machine Learning Extended Root Zone Soil Moisture Dataset	Alka Rani Division of Soil Physics, ICAR-Indian Institute of Soil Science

Parallel Sessions

Tuesday, June 9 (Session 108003)			
16:30-16:45	34851	A streamlined soil database strengthening near-real-time interoperability for soil monitoring networks and services	Andrea Lachi CREA (Research Centre for Agriculture and Environment)
16:45-17:00	31825	Stacking ensembles with spatial residual correction for improved soil pH mapping in tropical croplands	Zhang Meixuan Hainan University
17:00-17:15	32532	Well-facilitated Farmland Construction enhances soil organic carbon storage in China	Zheng Wang Zhejiang University
17:15-17:30	34196	Modeling of spatiotemporal heterogeneity of agrochemical properties of soils within the territory of testing agricultural crop varieties	Bodalev Konstantin Andreevich Kazan Federal University
17:30-17:45	33978	Quantifying Pan-European Soil Organic Carbon Trends and Associated Uncertainty for Soil Health Monitoring	Ali Sakhaee Thünen Institute of Climate-Smart Agriculture
17:45-18:00	34646	Measuring Ephemeral Gully Morphology Using a Portable Gulliometer and Image- based Techniques	Harnoordeep Singh Mann School of Environmental Sciences, University of Guelph, Canada
18:00-18:15	32772	WoSIS: An international effort to share standardised soil data for the world	Laura Poggio ISRIC - World Soil Information
18:15-18:30	32319	Soil Fertility Index and Spatial Variability as Drivers of Site-Specific Fertilizer Management in the Tigray Highlands	Mulugeta Sebhatleab Tesfay Mekelle University; Land Resources Management and Environmental Protection, Mekelle University

Parallel Sessions

Friday, June 12	Room: Expo Center, Hall 4,4201
Session 108004	**Operational Digital Soil Mapping: Fitness for Use of DSM Products: Pitfalls to Avoid and Way Forward** **Convener:** Laura Poggio, ISRIC-World Soil Information **Co-Conveners:** Feng Liu, Institute of Soil Science, Chinese Academy of Sciences D G Rossiter, ISRIC-World Soil Information, david.rossiter@isric.org; Section of Soil & Crop Sciences, Cornell University (USA) Mercedes Román Dobarco, NEIKER Basque Institute for Agricultural Research and Development (E)

Schedule	ID	Title	Presenter
09:00-09:10	-	Welcome and orientation to the session: procedures and themes	Organizers
09:10-09:25	31974	Characterisation of global and continental DSM products: beyond point accuracy and towards user needs	Laura Poggio ISRIC - World Soil Information
09:25-09:40	33864	From Legacy Soil Maps to Fit-for-Use DSM Products: A Case Study from Portugal	Samuel Guerreiro LEAF—Linking Landscape, Environment, Agriculture and Food Research Centre, Instituto Superior de Agronomia, Universidade de Lisboa; Santarém Polytechnic University, School of Agriculture
09:40-09:55	34866	Digital Soil Mapping of pH at European scale: comparing national vs. continental inputs	Maria Fantappiè CREA - Council for Agricultural Research and Economics, Italy
09:55-10:10	34271	Transposability of MUSE (French DSM method for the Evaluation of Soil Multifunctionality) to EU scale in the framework of EU-funded Horizon Europe SPADES project	Amazigh Ouaksel BRGM; IRSTV
10:10-11:00	-	Discussion: lessons from first session	Organizers, presenters first session

Parallel Sessions

Friday, June 12 (Session 108004)			
11:15-11:30	319B12	Mapping and validating the root zone plant-available water holding capacity in central Ethiopia	Musefa A. Redi Ethiopian Institute of Agricultural Research
11:30-11:45	35230	National soil information grids of China: problems and possible solutions	Feng Liu Institute of Soil Science, Chinese Academy of Science
11:45-12:00	36622	Revealing the landscape with Digital Soil Mapping	David G. Rossiter ISRIC-World Soil Information
12:00-12:15	33550	Beyond uncertainties: making standalone metrics decision-oriented through game theory	Trevan Flynn University of Fort Hare
12:15-12:30	-	Discussion: lessons from second session and overall	Organizers, presenters second section, all

Parallel Sessions

Thursday, June 11	Room: Expo Center, Hall 4, 4203
Session 108005	**Digital Soil Mapping and Assessment: Advances, Applications, and Future Directions** **Convener:** Alessandro Samuel-Rosa, Federal Technological University of Paraná, Brazil Chair of the Digital Soil Mapping Working Group **Co-Convener:** George Van Zijl, North-West University, South Africa

Schedule	ID	Title	Presenter
11:15-11:30	36206	Distributional Validation of Digital Soil Maps using Aggregated Commercial Data	Alessandro Samuel-Rosa Federal Technological University of Paraná (Department of Agronomy, Santa Helena, Paraná, Brazil)
11:30-11:45	35762	Model Selection for Digital Soil Mapping Using Spatial Structure Indices	Fang-He Zhao Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences
11:45-12:00	32826	Continental-Scale Soil Assessment in Africa: Design, Implementation, and Early Findings from Soils4Africa	Samuel Ayodele Mesele International Institute of Tropical Agriculture
12:00-12:15	32926	Mapping of bundles of soil-based ecosystem services in the European Union and their evolution by 2050	Nicolas Saby INRAE, Info&Soils
13:30-13:45	35340	Integrating Hierarchical Factor Analysis and Digital Soil Mapping to Update Legacy Maps and Identify Soil Carbon Loss Hotspots for Land-Use Policy	Anna Gorbacheva HSE University, International Laboratory of Landscape Ecology
13:45-14:00	34913	Assessing the carbon sequestration potential and identifying influential factors of cultivated soils in Northeast China	Zicheng Wang Shenyang Agricultural University

Parallel Sessions

Thursday, June 11 (Session 108005)			
14:00-14:15	34917	Three-dimensional soil organic carbon stocks in Tibet, China: spatial heterogeneity, driving factors, and future Changes	Jiaying Li Shenyang Agricultural University
14:15-14:30	34918	Soil organic carbon in Chinese grassland ecosystems: spatial heterogeneity, driving factors, and future changes	Yi ran Wang Shenyang Agricultural University
14:30-14:45	33587	Intelligent Mapping Paradigm to Overcome Systematic Bias in Remote Sensing SOC Estimation: A Case Study of the Black Soil Region in China and the United States	Chong Luo Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
14:45-15:00	35778	Enhancing Regional Topsoil Total Nitrogen Mapping through Differentiated Fusion of Ground Hyperspectral Data and Satellite Images Under Low Vegetation Cover	Rongpeng He Aerospace Information Research Institute
15:00-15:15	34419	Spatial Variability of Soil Acidity and Mapping of Selected Soil Properties in Chancho Micro Watershed, South western Ethiopia	Abdissa Bekele Sima Oda Bultum University; Chiro; Ethiopia
16:30-16:45	35702	Integrating Digital Soil Mapping and Remote Sensing-Based Soil Moisture for Crop Water Requirement Modelling at the Land Parcel System Scale	Rosario Napoli CREA - Research Centre for Agriculture and Environment
16:45-17:00	32261	Mapping Spatiotemporal Soil Temperature in Real-time using Neural Networks Combined with Heat Transfer Equation	Marliana Widyastuti Sydney Institute of Agriculture & School of Life and Environmental Sciences, The University of Sydney
17:00-17:15	34258	Propose an improved digital mapping method for mountainous soil heavy metals based on spatial structure feature integrated with geographic optimal similarity (SI-GOS) model to explore more effective regional environmental management pathways	Jiakang Liu Center China Normal University

Parallel Sessions

Thursday, June 11 (Session 108005)			
17:15-17:30	35317	Comparative Study on Soil Spatial Provenance Based on Soil Property Similarity Clustering and Pedogenic Environment Inference	Rong Zeng Nanjing University of Information Science and Technology
17:30-17:45	35552	Within-field soil variability in agro-silvo-pastoral systems: a baseline for Precision Agriculture adoption	João Horta Marques MED—Mediterranean Institute for Agriculture, Environment and Development and CHANGE—Global Change and Sustainability Institute, Universidade de Évora, Pólo da Mitra, Ap. 94, 7006-554 Évora, Portugal; CEF-Centro de Estudos Florestais and TERRA - Associate Laboratory, Instituto Superior de Agronomia, Universidade de Lisboa, Tapada da Ajuda, Lisbon 1349-017, Portugal
17:45-18:00	31832	Applying Digital Soil Assessment to Support the Effectiveness Evaluation and Design Optimization of Buffer Strips	Tianying Li University of Guelph
18:00-18:15	36202	Mapping Soil Fine and Coarse Mineral Fractions Using Compositional Methods	Taciara Zborowski Horst Federal Technological University of Paraná (Department of Agronomy, Dois Vizinhos, Paraná, Brazil)
18:15-18:30	32459	New dimensions of farmers' decision making: Demonstration of a 3D web-viewer for erosion mitigation strategies	Marvin Melzer Leibniz Centre for Agricultural Landscape Research (ZALF)

Parallel Sessions

Thursday, June 11 Friday, June 12	Room: Expo Center, Hall 4, 4202
Session 110001	**Advances in Soil Health Monitoring with Proximal Sensing**
	Convener: Yongsheng Hong, Wuhan University **Co-Conveners:** Bifeng Hu, Jiangxi University of Finance and Economics Yiyun Chen, Wuhan University Asim Biswas, University of Guelph Zhou Shi, Zhejiang University

Schedule	ID	Title	Presenter
Thursday, June 11			
11:15-11:30	34398	Measuring Soil Health Using Technologies Across Scales	Asim Biswas School of Environmental Sciences, University of Guelph, Guelph, ON Canada N1G 2W1
11:30-11:45	33627	Towards Sustainable Land Use: Soil Health Assessment at a National Scale using Spectral Information	Asa Gholizadeh Department of Soil Science and Soil Protection, Czech University of Life Sciences Prague
11:45-12:00	35719	Monitoring soil arsenic content in densely vegetated agricultural areas using UAV hyperspectral, satellite multispectral and SAR data	Xiao-Lin Sun College of Agriculture, Guangxi University

Parallel Sessions

Thursday, June 11 (Session 110001)			
12:15-12:30	34078	SWRCI: A Novel Remote Sensing Index for Soil Water Retention Capacity	Linghua Meng Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
13:30-13:45	35573	Comparison of mid-infrared and visible/near-infrared spectroscopy of moist-intact cores and dry-ground soils for soil property prediction	Wenjun Ji China Agricultural University
13:45-14:00	35314	A comparative study of four color measurement methods for soil color identification and related properties prediction	Rong Zeng Nanjing University of Information Science and Technology
14:00-14:15	33198	A transferable spatiotemporal deep learning framework integrating soil moisture dynamics for high-resolution cropland Soil Organic Matter Mapping Across Regions	Chong Luo Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, Changchun, 130102, China
14:15-14:30	32359	Evaluating Portable X-Ray Fluorescence (pXRF) for Soil Fertility Assessment: Influence of Moisture and Soil Properties	Deepanjan Mridha Washington State University
14:30-14:45	33900	Improving in-situ spectral estimation of wetland soil organic carbon by integrating multiple optimization strategies	Bifeng Hu Jiangxi University of Finance and Economics
14:45-15:00	36177	Hybrid Deep Learning for Soil Property Prediction Using Vis-NIR Spectroscopy	Wang Xiaoqing Chengdu University of Information Technology

Parallel Sessions

Thursday, June 11 (Session 110001)			
16:30-16:45	36449	Advancing Soil Health Monitoring Using Proximal VIS-NIR and MIR Spectroscopy Integrated with Multivariate Modeling	Seema Department of Soil Science and Agricultural Chemistry, College of Agriculture, Agriculture University Jodhpur, Jodhpur, Rajasthan, 342304, India
16:45-17:00	35826	Mapping mollic epipedon thickness via ground-penetrating radar based on the combined method of Variational Mode Decomposition and Average Envelope Amplitude	Xiangming Zhu Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
17:00-17:15	34403	Accuracies and costs of prediction and mapping soil properties using proximal sensors: A systematic review	Carlos Lozano Fondón, Ph.D Research Centre for Agriculture and Environment, Council for Agricultural Research and Economics, via di Lanciola 12⁄A, 50125 Florence, Italy
17:15-17:30	32634	Sequential indirect modeling of soil properties from spectral data with small sample set	Gretelerika Vindeker Department of soil genesis, geography and classification, V. V. Dokuchaev Soil Science Institute
17:30-17:45	31768	Evaluating Spectroscopy and Chemometrics as Tools to Improve Agricultural Soil Analysis	Gbenga D. Adejumo University of Saskatchewan
17:45-18:00	31937	Evaluating Portable Miniaturized NIR and Vis-NIR Technologies for Soil Spectroscopic Analysis	Reda Mokere Center of Excellence in Soil and Fertilizer Research in Africa, Mohammed VI Polytechnic University (UM6P)
18:00-18:15	34642	Soil drainage survey using Electromagnetic induction Sensing	Harnoordeep Singh Mann School of Environmental Sciences, University of Guelph, Canada

Parallel Sessions

Friday, June 12 (Session 110001)			
09:00-09:15	33029	Deep Learning-Based Similarity Framework for Rapid Soil Organic Matter Assessment from Smartphone Imagery	Asim Biswas University of Guelph
09:15-09:30	31995	Intelligent Soil Monitoring	Yongsheng Hong Wuhan University
09:30-09:45	32542	Low-cost portable near infrared spectroscopy for in-situ and laboratory prediction of soil organic carbon in Ferrosols	Zhengyang Xu Zhejiang University
09:45-10:00	33374	Regional bare soil mapping method integrating multi-source remote sensing data in cloudy environments	Junzhe Fang ZhejiangUniversity
10:00-10:15	36483	Identification of Alkalized Horizons Using Ground Penetrating Radar in Typical Saline-Alkali Areas of the Songnen Plain	Chenyang Gao College of land and environment, Shenyang Agricultural University Shenyang, Liaonning CHINA
10:15-10:30	34110	The Accurate Estimation of Soil Available Nutrients Achieved by Feature Selection Coupled with Preprocessing Based on MIR and pXRF Fusion	Qi Zou China Agricultural University
10:30-10:45	34388	A Dataset-Based Statistical Comparison and Fusion of Gamma-Ray and Visible-Near-Infrared Sensing Technologies for Soil Texture Prediction	Jiang Liu Department of Environment, Faculty of Bioscience Engineering, Ghent University
10:45-11:00	33121	Preprocessing and Optimizing Sensitive Wavelength Enable End-to-End Estimation of Soil Heavy Metals using Hyperspectral Remote Sensing	Chang Meng Inner Mongolia Agricultural University
11:15-11:30	34055	Spatio-temporal fusion-based analysis of soil salinization dynamics in the Ningxia-Inner Mongolia Yellow River Irrigation District (2000-2025)	Qidong Ding Ningxia University
11:30-11:45	32887	Coastal Soil Salinity Inversion Using Resource Satellite Data and Explainable Machine Learning: A Case Study of Southern Laizhou Bay	Rui Ma Liaocheng University
11:45-12:00	35670	Dynamic inversion of soil salinity in farmland across the Hetao Plain of China based on a spatiotemporal fusion algorithm (2000-2024)	Huayu Huang Ningxia University

Parallel Sessions

Monday, June 8	Room: Expo Center, Hall 5, 5203
Session 110003	**Soil Spectroscopy: A Global Solution for Sustainable Soil Management and Food Security** **Convener:** Asim Biswas, Chair of Proximal Soil Sensing Working Group of IUSS, University of Guelph **Co-Convener:** Yi Peng, Global Soil Partnership, Food and Agriculture Organization of the United Nations (FAO)

Schedule	ID	Title	Presenter
13:15-13:25	34889	Vis-NIR Spectroscopy and Chemometrics for Soil Pollution Assessment: Challenges and Opportunities	Claudio Colombo University of Molise, Department of Agricultural, Environmental and Food Science, Campobasso (CB), Italy
13:30-13:45	34993	Sample Transfer Learning for Improving Field-Scale Soil Organic Matter Inversion via UAV Hyperspectral Remote Sensing	Xian-Li Xie State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences, Nanjing
13:50-14:00	32206	The use of low-cost spectrometers to predict key soil properties for digital soil mapping in South Sumatra, Indonesia	Astriana Rahmi Setiawati School of Life and Environmental Sciences & Sydney Institute of Agriculture, The University of Sydney
14:05-14:15	32829	A Vis-NIR penetrometer system for field measurement of soil organic carbon	Yin-Chung Huang School of Life and Environmental Science & Sydney Institute of Agriculture, The University of Sydney
14:20-14:30	32625	Comparison of mid and near infrared spectroscopy in predicting stable isotope values (δ 13C and δ15N) of tropical soils in Madagascar	Ramifehiarivo Nandrianina Laboratoire des RadioIsotopes-University of Antananarivo; Ecole Supérieure des Sciences Agronomiques-University of Antananarivo

Parallel Sessions

Monday, June 8 (Session 110003)			
14:35-14:45	35947	Estimation of soil inorganic carbon storage for profiles based on spectroscopy	Guanghui Zheng School of Geographic Sciences, Nanjing University of Information Science and Technology
14:50-15:00	33190	Transferability of Global Spectral Models for Local Soil Organic Carbon Predictions: Effects of Spiking on Model Performance	Anshu Beri School of Environmental Sciences, University of Guelph, 50 Stone Road East, Guelph, ON N1G 2W1, Canada
16:30-16:40	35039	Characterization of soil organic matter regarding both the structure and composition by Fourier transform infrared attenuated reflectance spectroscopy	F. Ma The State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences, Nanjing 210008, China;
16:45-16:55	33241	Carbon Assessment in Peat Soils Through Moisture-Corrected Vis-NIR Spectroscopy and Instrument Comparison	Leonardo Pace University of Tuscia
17:00-17:10	31906	Prediction of soil organic matter using visible-near-infrared spectroscopy combined with textural hand-feel determination	Meihua Yang Yuzhang Normal University
17:15-17:25	33644	Comparative analysis of Vis-NIR and MIR spectroscopy for predicting soil properties and identifying minerals at smallholder cocoa farms across Papua New Guinea	Tom Swan University of Sydney
17:30-17:40	33379	Spectroscopic Screening of Soil Extracellular Oxidases and Their Application in Soil Health Monitoring and Carbon Modeling	Jianwei Li Tennessee State University
17:45-17:55	33140	A comparative study of Random Forest and Neural Network with implementation of Boruta algorithm for predicting soil properties from Visible-Near Infrared spectra	Daria Zhulidova V. V. Dokuchaev Soil Science Institute

Parallel Sessions

Friday, June 12	Room: Expo Center, Hall 4, 4203
Session 112001	**Advances in Numerical Soil Classification** **Convener:** Budiman Minasny, The University of Sydney **Co-Conveners:** Jingyi Huang, The university of Wisconsin, USA Songchao Chen, Zhejiang University, China

Schedule	ID	Title	Presenter
11:15-11:30	31820	Layer-Profile Integration for Numerical Soil Classification	Wartini Ng The University of Sydney
11:30-11:45	36456	Efforts to develop modern objective numerical data sources to support universal approaches of soil classification	Erika Micheli Department of Soil Science, Institute of Environmental Sciences, Hungarian University of Agriculture and Life Sciences, Gödöllő, Hungary
11:45-12:00	33222	Harmonization of Soil Typological Units Across Administrative Regions: A Case Study from Italy	Roberto Barbetti CREA-FL council for agricultural research and economics, Forestry and Wood, Casale Monferrato IT

Parallel Sessions

Monday, June 8 Tuesday, June 9	Room: Expo Center, Hall 7, 7202
Session 201001	**Beyond Plant Available Water - New Insights on Soil Water Accessibility**
	Convener: Ying Zhao, Ludong University **Co-Conveners:** Peth Stephan, LeibnizUniversity Hanover Wei Hu, The New Zealand Institute for Plant and Food Research Limited, New Zealand

Schedule	ID	Title	Presenter
		Monday, June 8	
13:15-13:35	36620	Pore systems and functions in structured soils- how far affect soilmanagement and environmental impacts an unambiguous assignment?	Rainer Horn Soil Science, CAU Kiel, Germany
13:35-13:50	36221	Soil Pore Size Distribution and Water Retention Curves by Low-Field NMR	Etelvino Henrique Novotny Embrapa Soils, Rio de Janeiro, Brazil
13:50-14:05	36121	Field-scale Assessments of Subsoil Compaction and Soil Structural Functions in Lower Saxony, Germany	Xinjun Huang Henan University of Technology
14:05-14:20	34718	Stress-Strain Mechanism of Salt-affected Soils in the Yellow River Delta	Lidong Ren Modern Agricultural Engineering Laboratory, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences
14:20-14:35	33960	Creating Pathways for Roots: Artificial Macropores through Compacted Subsoils	Elron Wiedermann Thuenen Institute of Climate-Smart Agriculture

Parallel Sessions

Monday, June 8 (Session 201001)			
14:35-14:50	33183	A complete morphological and topological description of soil pore structure dynamics during wetting-drying	Kirill D. Tolstygin Laboratory of digital twins of agricultural landscapes, Dokuchaev Soil Science Institute, Moscow, Russia
14:50-15:05	32590	Development of soil mechanical stability during initial soil formation - from field to rhizosphere scale	Stephan Peth Leibniz University Hannover, Institute of Earth System Sciences, Section Soil Science
15:05-15:15	33788	Trees' Effect on Soil Penetration Resistance Under Livestock-Forestry System in Southern Brazil	Karina Maria Vieira Cavalieri-Polizeli Department of Soil Science and Agr. Eng., Federal University of Paraná
16:30-16:50	33760	A Mechanistic Soil-Plant Model to Assess Soil Water Accessibility	Jan Vanderborght Agrosphere Institute (IBG-3), Forschungszentrum Jülich
16:50-17:05	36251	Mucilage effects on soil-plant hydraulics and stomatal regulation under drought	Gaochao Cai Sun Yat-sen University
17:05-17:20	32578	Defining, monitoring, and utilizing plant available water information as a public good	Tyson E. Ochsner Oklahoma State University
17:20-17:35	32479	A Process-Based Proxy for the Water Availability to Plants	Quirijn de Jong van Lier Universidade de São Paulo
17:35-17:50	32368	Water Balance and Plant Soil Water Availability: Linking Soil Physics and Hydrology	Allen Hunt Wright State University
17:50-18:05	31340	Confronting Water Availability versus Water Accessibility in Plant-Soil Relations	Ying Zhao Ludong University
18:05-18:20	32899	Rhizosphere Hydraulic Regulation Across Soil Textures: Evidence for Texture-Dependent Mucilage Function	Mohsen Zare Professorship for Soil Biophysics and Environmental Systems, Technical University of Munich
18:20-18:30	-	Summary	-

Parallel Sessions

Tuesday, June 9 (Session 201001)			
09:00-09:20	32281	Impact of Biosolids on Plant Available Water and Beyond	Markus Flury Washington State University
09:20-09:35	35458	Improvement of the Soil Water Retention Model Based on the Additivity Hypothesis	Anatoly Zeyliger Hydroinformatics Laboratory, Water Problems Institute of the Russian Academy of Sciences, Moscow, Russia; Southern Federal University, Rostov-on-Don, Russia; Moscow Institute of Physics and Technology, Moscow, Russia; Russian State Agrarian University-Moscow Timiryazev Agricultural Academy, Moscow, Russia
09:35-09:50	34774	Impact of drought and root excision on root regeneration, xylem hydraulics and leaf physiological characteristics in Robinia Pseudoacacia	Min Li Northwest A&F University
09:50-10:05	34251	Biochar application to soil in agricultural water management	Agnieszka Medynska-Juraszek Institute of Soil Science, Plant Nutrition and Environmental Protection, Wroclaw University of Environmental and Life Sciences
10:05-10:20	33062	A PCB-Based Integrated Measurement System for In Situ Determination of Soil Water Content and Bulk Density	Chao Wang China Agricultural University

Parallel Sessions

Tuesday, June 9 (Session 201001)			
10:20-10:35	32321	Predawn Leaf Water Potential of Grapevines Is Not Necessarily a Good Proxy for Soil Moisture	Yingxue Yu The Pennsylvania State University
10:35-10:50	32042	Modeling Water Movement in Gravity Potential Difference Irrigation Based on Hydraulic Potential Difference-Driven Outflow Mechanism	Su Dandan State Key Laboratory of Efficient Utilization of Arid and Semi-arid Arable Land in Northern China\/Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences; College of Natural Resources and Environment, Northwest A&F University
11:15-11:35	319B25	Water-Microbe-Mediated Rhizosphere Microbial Communities Reshaping Agroecosystem Resilience	Gary Y. Gan College of Life and Environmental Science, Zhejiang Provincial Key Lab for Water Environment and Marine Biological Resources Protection, Wenzhou University
11:35-11:50	36441	From Laboratory to Field: Advancing Soil Heat Flux Plate Accuracy through Philip Correction and Field Calibration	Bing Tong Research Center for Eco-environmental Sciences, Chinese Academy of Sciences
11:50-12:05	35800	Evolution of Salt Precipitation: Governing Water and Heat Transport in Saline Soils	Xinhu Li Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences
12:05-12:20	31599	A Complex-Plane Representation of Gas Diffusivity in Variably Saturated and Fractured Porous Media	Chamindu Deepagoda Lincoln University

Parallel Sessions

Tuesday, June 9 (Session 201001)			
13:30-13:50	31586	Soil-water and Groundwater: Connections at the Food-Water-Energy Nexus	Brent Clothier Bioeconomy Science Institute ; Plant & Food Group
13:50-14:05	33991	Modeling plant water and solute uptake by HYDRUS	Jiří (Jirka) Šimůnek Department of Environmental Sciences, University of California
14:05-14:20	32306	Root zone in the Earth system	Hongkai Gao East China Normal University
14:20-14:35	35642	Adaptive water use strategies of artificially revegetated plants in a water-limited desert: Implications for sustainable ecological restoration	Laiming Huang Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences
14:35-14:50	36244	Collaborative roles of soil and plant hydraulic resistances in plant water transport: insights from modeling and data synthesis	Guoqing Lei Wuhan University
14:50-15:05	34439	Assessment of irrigation water consumption in the Yellow River Delta based on GIS and HYDRUS-1D	Zhenghui Lv Shenyang Agricultural University
15:05-15:15	-	Summary	-

Parallel Sessions

Thursday, June 11 Friday, June 12	Room: Expo Center, Hall 7, 7202
Session 201002	**Linking Physical and Hydrological Processes with Soil Health and Functionality in Terrestrial Ecosystems** **Convener:** Gang Wang, China Agricultural University **Co-Conveners:** Andrea Carminati, ETH Zurich Teamrat A. Ghezzehei, University of California, Merced Ye Deng, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences Samuel Bickel, Graz University of Technology Ying Liu, China Agricultural University Huang Ping, Chongqing Institute of Green and Intelligent Technology, Chinese Academy of Sciences

Schedule	ID	Title	Presenter
Thursday, June 11			
11:15-11:35	320B20	Soil physical constraints on plant evolution and ecosystem water limitations	Andrea Carminati ETH Zurich
11:35-11:55	33284	In-situ determining the dynamic of soil bulk density by using the combined soil moisture and thermal property sensors in a Vertisol and its relationship with waterlogging	Xinhua Peng Institute of Agricultural Resources and Regional Planning, CAAS
11:55-12:15	35957	Microscale biophysical interactions determine environmental microbial ecology	Gang Wang China Agricultural University
12:15-12:30	35563	Nitrous oxide emissions in Argiudolls of the Central Pampas Region of Argentina managed with no-tillage and controlled traffic farming	Silvia Imhoff ICiAgro Litoral (Institute of Agricultural Science of Litoral)-CONICET-UNL

Parallel Sessions

Thursday, June 11 (Session 201002)			
13:30-13:45	31864	Optimizing implementation strategies for efficient soil water evaporation measurements with multi-probe heat pulse sensors	Ke Liu China Agricultural University
13:45-14:00	32506	Cover Crops, More Than Crop Rotation Diversity, Improve Soil Porosity, Carbon Storage, and Hydraulic Conductivity in a Long-Term No-Till Field Experiment in South Dakota	Xi Zhang University of Tennessee
14:00-14:15	33419	Quantifying the Impact of Tractor Tire Pressure and Soil Management History on Soil Porosity and Void Morphology	Olatunbosun Ayetan School of Environmental Sciences, University of Guelph, Guelph, ON N1G 2W1, Canada
14:15-14:30	34597	Study on the Evolution of Multi-scale Pore Structure and Hydraulic Properties in the Arable Layer of Paddy Fields	Guiling Wang CentralChinaNormalUniversity
14:30-14:45	35616	Bearing capacity of an Argiudoll under direct seeding and controlled machinery trafficended with soluble calcium	Silvia Imhoff ICiAgro Litoral (Institute of Agricultural Science of Litoral)-CONICET-UNL
14:45-15:00	34046	Hydrodynamic Shear Stress Regulates P. aeruginosa Attachment via Motility Organelles	Chen Song China Agricultural University
15:00-15:15	35222	Transformation of Agro-Physical Soil Properties During Urbanization: A Case Study in the Republic of Adygea	Tazieva A. O. Soil Physics and Melioration, Moscow State University, Moscow, Russia

Parallel Sessions

Thursday, June 11 (Session 201002)			
16:30-16:45	33919	The added value of CoreVESS score, penetration resistance, and geophysical techniques in predicting and characterizing the soil-water retention curve	Lin Lin University of Liège; Ghent University
16:45-17:00	32401	Applicability and transferability of the state-space approach to predict saturated soil hydraulic conductivity at watershed scale	Luis Carlos Timm Rural Engineering Department, Faculty of Agronomy, Federal University of Pelotas
17:00-17:15	33844	Estimation of soil water retention curves by combining thermal conductivity and electrical conductivity curves	Siqi Zhou China Agricultural University
17:15-17:30	33351	Soil moisture, irrigation efficiency, and soil strength interactions under centre pivot irrigation	Ana Carolina De Mattos E Avila Tasmanian Institute of Agriculture; University of Tasmania
17:30-17:45	33741	Causality analysis and prediction of soil saturated hydraulic conductivity by combining empirical modeling and machine learning techniques	Yundong Wang Huazhong Agriculture University
17:45-18:00			
18:00-18:15	33740	Long-term organic fertilizer substitution alleviates the surface soil compaction of a Vertisol by improving soil structure	Liman Ao Huazhong Agricultural University
18:15-18:30	32026	Root-soil interface traits in modern and landrace barley genotypes differ in the lab but not the field	Sean Graham University of Aberdeen; The James Hutton Institute
18:30-18:45	33710	Dry-wet cycles promote microbial interactions and horizontal gene transfer	Xinrui Wei China Agricultural University; University of Delaware
Friday, June 12 (Session 201002)			

Parallel Sessions

09:00-09:15	32284	Modelling the relationship between naturally occurring radionuclides and grain size of sediment of various river basins, South Africa	J Bezuidenhout Stellenbosch University
09:15-09:30	32392	Accurate soil thermal conductivity schemes are crucial for improved earth system modelling skill	Hailong He Northwest A&F University, University of Manitoba
09:30-09:45	32202	Seasonal dynamics of soil structure and water retention of field soils with different long-termendment rates of slurry and compost: measurements and modelling	Utibe E. Utin Department of Soil Science and Land Resources Management, University of Uyo; School of Biological Sciences, University of Aberdeen; School of Geosciences, University of Aberdeen
09:45-10:00	36394	Mechanical Adaptive Feedback Mechanisms of Microbial Colonies to External Physical Pressure	Mingyu Su China Agricultural University
10:00-10:15	36275	Effects of Different Land Uses on Soil Structure and Hydrological Function: Mechanisms and Implications	Heng Liu Northwest A&F University
10:15-10:30	31608	Revisiting soil water retention behavior as influenced by microbial growth under unsaturated conditions	Yili Lu China Agricultural University
10:30-10:45	34230	Controls on near-saturation water retention and structural stability of soils across four climatic regions: long-term land use versus singleendment	Amrakh I. Mamedov Department of Environmental Sciences, Western Caspian University, Baku, Azerbaijan.
11:15-11:30	35902	Pore Structure-Controlled Water and Solute Transport in Agricultural Soils of Plain River Network Areas	Xiaoqin Sun Hohai University
11:30-11:45	33349	Soil structure versus soil life: Microbial resilience to compaction in contrasting soil types	Mariia Timofeeva Department of Soil Physics and Hydrology, V.V. Dokuchaev Soil Science Institute, Moscow, Russia

Parallel Sessions

Monday, June 8 Tuesday, June 9	Room: Convention Center, Nanjing 402A
Session 202001	**Physicochemical and Biological Processes of Chemicals in Soils** **Convener:** Hanzhong Jia, Northwestern Agricultural and Forestry University **Co-Conveners:** Ya-Hui Chuang, National Chung Hsing University Hui Li, Michigan State University

Schedule	ID	Title	Presenter
Monday, June 8			
16:30-16:48	34780	Effects of Microplastic Pollution on Soil Organic Carbon Turnover	Hanzhong Jia Northwest A&F University
16:48-17:06	33926	Emerging Contaminants in Soil, Water, and Plant Systems: One Health Perspective	Wei Zhang Department of Plant, Soil and Microbial Sciences, Michigan State University
17:06-17:20	36063	Machine learning-based prediction of phenanthrene accumulation and toxicity in earthworms across soils	Guofeng Li Institute of Urban Environment; Institute of Urban Environment, Chinese Academy of Sciences

Parallel Sessions

Monday, June 8 (Session 202001)			
17:20-17:34	32792	Chemical transformation pathways demonstrating elemental sulfur effectiveness in alkaline-sodic soils	Mst Sarmin Akter Ranu School of Agriculture and Food Sustainability, The University of Queensland
17:34-17:48	32294	Using radiogenic and metal stable isotope ratios as new tools to assess nutrient cycling in agricultural systems	Bei Wu Institute of Bio- and Geosciences: Agrosphere (IBG-3), Forschungszentrum Jülich GmbH (FZJ)
17:48-18:02	32154	Effects of repeated wetting and drying cycles on potassium fertiliser behaviour and nutrient dynamics in diverse soils	Yili Zang The University of Queensland
18:02-18:16	32145	The effect of endogenous hydrogen on the soils of the degassing sites of the Central Chernozem region of the Russian Federation	Aleksei Kiriushin Lomonosov Moscow State University
18:16-18:30	319B21	Sea weed contribute enormous number of charges to soil system and enhances massive rice productivity	Sanjib Kar University of Calcutta

Parallel Sessions

Tuesday, June 9 (Session 202001)			
09:00-09:18	35807	Surface-Modified Carbonaceous Media for Enhanced Removal of Short-Chain Per- and Polyfluoroalkyl Substances from Urban Stormwater	Wenqing Xu Department of Civil and Environmental Engineering, Villanova University, 800 E. Lancaster Avenue, Villanova, PA 19085, USA
09:18-09:36	32998	Transformation of PFAA Precursors in Soil Under Environmental Conditions	Jianzhou He Center for Advanced Materials Science, Department of Biochemistry, Chemistry and Physics, Georgia Southern University
09:36-09:51	32845	Persistence, Transport and Transformation of Per- and Polyfluoroalkyl Substances in Soils from repeated Land Application of Biosolids	Zhiliang Xu Department of Plant, Soil and Microbial Sciences, Michigan State University
09:51-10:06	32721	Process-Based Multi-Surface Modeling of Soil Arsenic: Enabling Large-Scale prediction of environmental fate and Guiding Remediation Strategies	Yuhong Huang Nanjing university
10:06-10:21	29049	Floodplain Wetlands as Biogeochemical Filters Following Wildfire	Sean Fettrow Colorado State University

Parallel Sessions

Tuesday, June 9 (Session 202001)			
13:30-13:48	34527	The fate of endocrine disruptor compounds in soil. The role of humic substances	Nicola Senesi 1 Dept of Soil, Plant and Food Sciences, University of Bari “Aldo Moro”, Bari, Italy
13:48-14:03	35852	Rice Growth and Yield Formation in Heterogeneous Sodic and Saline-Sodic Soils: Challenges and Management Strategies	Sulaiman Shah Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, Changchun 130102, China.
14:03-14:18	33839	A high-resolution map of urban soil pH in the megacity of Xi'an	Shuangshuang Wei Xi'an Jiaotong University
14:18-14:33	33301	Size-dependent colloidal stability and transport behaviors of typical zonal soil colloids	Chen-yang Xu Northwest A&F University
14:33-14:48	32260	Salix acutifolia Willd. as an ecological engineer in the processes of soil formation and plant succession in sandy areas	Rahmonov O., Czajka A. Department of Natural Sciences. Institute of Earth Sciences
14:48-15:03	32238	Impact of Saltwater Intrusion on Phosphorus Speciation and Mobility in an Agricultural Soil	Piyapas Sricharoenvech Department of Soil Science, Kasetsart University
15:03-15:18	36478	Novel Ball-Milled Tourmaline-Biochar Composite: Application in Heavy Metal-Contaminated Groundwater and Bottom Sediment Remediation	Wecheng Wang Nankai University

Parallel Sessions

Tuesday, June 9 (Session 202001)			
16:30-16:43	36312	Ultrasensitive detection of trace Hg(II) in acidic conditions using DMABR loaded on sepiolite: Function, application and mechanism studies	YunCheng Wang State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences; University of Chinese Academy of Sciences
16:43-16:56	35123	Sulfur Dynamics Coupled with Heavy Metal Behavior under Fluctuating Redox Conditions in Paddy Soils	Tomoyuki Makino Tohoku University, Graduate School of Agricultural Science
16:56-17:09	33793	Sorption and Desorption of Phosphorus in Soil: Implications for Water Quality	Jian Liu Norwegian Institute of Bioeconomy Research
17:09-17:22	33220	Molecular modeling of natural organic matter-heavy metal cations interactions	Chi Zhang College of Natural Resources and Environment, Northwest A & F University
17:22-17:35	32895	Fe(II) and Organic Acid Influence Arsenic Sorption by Magnetite	Jertz Vlyn Escala Kasetsart University
17:35-17:48	32869	Evaluation of Corncob Biochar Application on Soil Fertility, and Nitrogen Cycle in Arabica Coffee Cropping System	Nuttapon Khongdee Department of Plant and Soil Science, Faculty of Agriculture, Chiang Mai University
17:48-18:01	32679	What controls the metallomes of carrot and wheat grown under varying soil water conditions in greenhouse?	Qinyuan Cao Department of Plant, Soil and Microbial Sciences, Michigan State University
18:01-18:14	32540	Mapping Microscale pH Dynamics at Soil-Amendment Interfaces Under Fluctuating Moisture Conditions	Kun Zhu China Agricultural University
18:14-18:27	31741	Potassium mineralization potentials of some soilendments applied to a degraded tropical Ultisol	Nnaemeka Henry Okoli Federal University of Technology

Parallel Sessions

Tuesday, June 9	Room: Convention Center, Nanjing 403B
Session 202002	**Advances in Soil Carbon Dynamics Across Scales: From Molecules to Ecosystems** **Convener:** Karen Vancampenhout, Dpt. of Earth and Environmental Sciences, University of Leuven **Co-Conveners:** Boris Jansen, Institute for Biodiversity and Ecosystem Dynamics, University of Amsterdam Jianying Shang, China Agricultural University

Schedule	ID	Title	Presenter
09:00-09:15	36457	Chemical pathways of soil organic carbon stabilization in Mediterranean soils	Matheus Toloto Associated Laboratory for Sustainability and Technology in Inland Regions (La SusTEC), Polytechnic Institute of Bragança; A Coruña University, Centro Interdisciplinar de Química e Bioloxía (CICA)
09:15-09:30	36445	Divergent stabilization controls of lignin phenols andino sugars as biomarkers for soil organic carbon source	Songyu Yang Institute of Soil Science, Chinese Academy of Sciences, Nanjing, China
09:30-09:45	34465	Molecular-thermal coupling of plant residue-derived organic matter mediated by clay minerals: insights from solid-state 13C NMR	Chen Xiaodong Faculty of Agriculture, Kyushu University, Fukuoka, Japan
09:45-10:00	33706	Abiotic processes dominate short-term carbon emissions in sandy soil after soil rewetting: impact of mineral and reactive oxygen species	Fuhao Liu Yangzhou University

Parallel Sessions

Tuesday, June 9 (Session 202002)			
10:00-10:15	31721	Iron and Manganese Catalyzed Maillard Chemistry: Molecular Characteristics, Evolution Pathways, and Implications for Soil Organic Carbon Formation	Bo Chen Shanghai Jiao Tong University
10:15-10:30	36350	Black Carbon Accelerates Soil Carbon Loss through Coupled Iron Redox Cycling	Jianying Shang and Qirui Li China Agricultural University
10:30-10:45	35923	Arbuscular Mycorrhizal Fungi Strengthen Aggregate Protection and Reactive Fe/Al Pools to Stabilize Soil Organic Carbon in Acidic Soils	Wenqi Zhang Nanjing Forestry University, College of Forestry and Grassland,College of Soil and Water Conservation
10:45-11:00	31249	Carbon Cycling in Soils of Northen Coastal Ecosystems	Pavel Krasilnikov Faculty of Soil Science, M.V. Lomonosov Moscow State University
11:15-11:30	33108	Controlling factors on soil organic matter stability under threat of global warming and drought in central Asian semi-arid mountain ecosystems	Zheng SUN Graduate School of Agriculture, Kyoto University

Parallel Sessions

Tuesday, June 9 (Session 202002)			
13:30-13:45	34689	Soil organic carbon sequestration potential and stability in Solonetzic and Vertisolic soils of the Northerican Prairie	Shayeb Shahariar Department of Soil Science, College of Agriculture and Bioresources, University of Saskatchewan, Saskatoon, Saskatchewan, Canada
13:45-14:00	33280	Impact of active Al and Fe on mineral-associated organic matter in acidic to alkaline tropical to subtropical non-volcanic soils	Han LYU Institute of Agriculture, Tokyo University of Agriculture and Technology, Tokyo, Japan
14:00-14:15	34039	Establishing trees into permanently grazed grassland to increase SOC stocks - scaling results from microbes to landscapes	Sam McNally Bioeconomy Science Institute (Manaaki Whenua Group)
14:15-14:30	32229	SOM stability and energy storage in soil depending on land use change	Ekaterina Filimonenko Shandong Agricultural University ; Sirius University
14:30-14:45	35763	Model Ecosystems as Scalable Pathways for Soil Carbon Sequestration, Productivity and Climate-Smart Land Restoration in Africa	Caleb Melenya Ocansey CSIR - Crops Research Institute; AINAS - African Initiative for Nature-based Solutions
14:45-15:00	35163	Soil Organic Carbon Dynamics During Vegetation Restoration Across Dryland Precipitation Gradients Revealed by Radiocarbon Isotopes and Microbiology	Jinhong Guan Qinghai Normal University
15:00-15:15	31785	Application of Bio-regulation Technology: Protection and Sustainable Utilization of Black Soil	Ying Zhang Northeast Agricultural University

Tuesday, June 9 (Session 202002)			
16:30-16:45	33276	National mapping of cropland soil pH buffer capacity and acidity debt in China	Jun Jiang Chinese Academy of Sciences Institute of Soil Science
16:45-17:00	36389	Effects of Human Land Use Practices on the Binding Patterns of Organic Carbon and Iron Oxides	Ping Lu Shenyang Agricultural University
17:00-17:15	33226	Do cover crops and no-tillage reshape soil biota and organic matter across depth?	Chiara Poesio Department of Agricultural, Food and Environmental Sciences, University of Perugia, Perugia, Italy
17:15-17:30	34028	Carbon sequestration dynamics of MAOC in the tea plantation with different ages: evidence from Fe/Al oxides and organo-mineral interactions	Tiantian Tang Sichuan agricultural university
17:30-17:45	34238	Functional Cover Crop Diversity Enhances Root-Driven Organo-Mineral Associations and Nutrient Efficiency in High-Latitude Agriculture.	Thiago M. Inagaki Department of Biogeochemistry and Soil Quality. Norwegian Institute of Bioeconomy Research, Ås, Norway

Parallel Sessions

Tuesday, June 9	Room: Expo Center, Hall 7, 7202
Session 203001	**Diversity and Function of Soil Viromes** **Convener:** Jianming Xu, College of Environmental and Resource Sciences, Zhejiang University, Hangzhou, 310058, China **Co-Convener:** Jizheng He, University of Melbourne, Melbourne, Australia Bin Ma, College of Environmental and Resource Sciences, Zhejiang University, Hangzhou, 310058, China

Schedule	ID	Title	Presenter
16:30-16:35	-	Brief introduction of Session 203001	Jianming Xu
16:35-16:50	32285	Biogeographic patterns and drivers of soil viromes	Bin Ma Zhejiang University
16:50-17:05	32464	Twenty-Year Time Series Reveals Ecological and Evolutionary Dynamics of Viruses in a Freshwater Lake	Zhichao Zhou Shenzhen University
17:05-17:20	32211	Into the Unknown: A Continental Exploration of Viral Diversity in Australian Soils	Peipei Xue The University of Sydney
17:20-17:31	32615	Viral cooling of N2O emissions in long-term acidified soils	Hailin Zhang Southwest University
17:31-17:42	33364	Translational profiles reveal prokaryotic resource allocation to prophages	Kankan Zhao University of California San Diego
17:42-17:53	36061	How do soil viruses exert impacts on the soil carbon cycle under anaerobic? The ubiquitous but neglected part	Di Tong Zhejiang University
17:53-18:04	33386	Virus-prokaryote interactions assist pollutant removal in constructed wetlands	Zhiyuan Yao Ningbo University
18:04-18:15	36252	Rhizosphere phage-host interactions drive crop rotation-enhanced disease suppressiveness	Min Nie Institute of Soil Science, Chinese Academy of Sciences
18:15-18:26	33032	Soil viruses as key regulators of carbon sequestration and plant growth	Yongfeng Wang Institute of Applied Ecology, Chinese Academy of Sciences

Parallel Sessions

Monday, June 8	Room: Expo Center, Hall 7, 7201
Session 203002	**Roles of Extracellular Polymeric Substances in Biogeochemical Cycling and Soil Health** **Convener:** Peng Cai, National Key Laboratory of Agricultural Microbiology, College of Resources and Environment, Huazhong Agricultural University **Co-Conveners:** Marc A. Redmile-Gordon, Department of Environmental Horticulture, Royal Horticultural Society Yichao Wu, National Key Laboratory of Agricultural Microbiology, College of Resources and Environment, Huazhong Agricultural University Ke-Qing Xiao, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences

Schedule	ID	Title	Presenter
13:15-13:35	319B23	Small fractions, large effects: the role of extracellular polymeric substances in soil function	Marc Redmile-Gordon The Royal Horticultural Society
13:35-13:55	319B22	Extracellular polymeric substances in soil: drivers, functionality and future research directions	Cordula Vogel Institute of Soil Science and Site Ecology, TU Dresden
13:55-14:10	33355	Functional Group Composition and Persistence of Extracellular Polymeric Substances in Soils	Chenchen Qu Huazhong Agricultural University

Parallel Sessions

Monday, June 8 (Session 203002)			
14:10-14:23	33996	Nitrogen deposition reorganizes extracellular polymeric substances production through microbial physiological adjustments in subtropical forest soils	Fengping Lai Institute of Geography, Fujian Normal University; Fujian Sanming Forest Ecosystem National Observation and Research Station; Key Laboratory of Humid Subtropical Eco-geographical Process of Ministry of Education, School of Geographical Sciences, Fujian Normal University
14:23-14:36	34033	Increased microbial extracellular polymeric substances as a key factor in deep soil organic carbon accumulation	Xing Wang College of Agronomy, Northwest A&F University
14:36-14:49	32616	Chemical Speciation of Phosphorus in Farmland Soils and Soil Aggregates Around Mining Areas	Mengxi Feng Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
14:49-15:02	33380	Microbial extracellular residues dominate long-term soil organic carbon storage	Peipei Qian Huazhong Agricultural University
15:02-15:15	34102	Microbial Legacy: The Differential Transformation of Biomass Components into Soil Organic Matter	Yifeng Zhang State Key Laboratory of Black Soils Conservation and Utilization, Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences

Parallel Sessions

Monday, June 8 (Session 203002)			
16:30-16:50	33603	Plant growth-promotion triggered by poly-γ-glutamic acid is associated with facilitation of bacterial cross-feeding networks of the rhizosphere	Yian Gu Nanjing Tech University
16:50-17:10	33595	Pore-scale spatial heterogeneity of moisture and microbe interactions during moisture evaporation	Rong Li South China University of Technology
17:10-17:25	32073	Seeing the Invisible: Visualizing Enzymatic Processes in Soil Hotspots	Nataliya Bilyera Geo-Biosphere Interactions, Department of Geosciences, University of Tuebingen
17:25-17:35	32796	Characterization of compound-specific extracellular polysaccharide biomarkers across soil organisms and plants	Tao Li Division of Terrestrial Ecosystem Research, Center for Microbiology and Environmental Systems Science, University of Vienna; Doctoral School in Microbiology and Environmental Science, University of Vienna
17:35-17:45	33381	Investigating Microbial Intracellular and Extracellular Carbon Production Efficiency Using 13C and 18O Isotope Techniques	Jingyi Ren Huazhong Agricultural University
17:45-17:55	33378	Modeling the Turnover and Stabilization of Soil Extracellular Polymeric Substances (EPS)	Xiaoyu Cheng Huazhong Agricultural University
17:55-18:05	35690	Effect of Humic acid on lysozyme interaction with montmorillonite and kaolinite	Yan Li Institute of Environment Resource and Soil Fertilizer, Zhejiang Academy of Agricultural Sciences
18:05-18:15	32896	Regulatory effects of Mortierella on soil microbial network stability and aggregate structure under saline-alkali stress	Ankang Wang Henan Agricultural University

Parallel Sessions

Monday, June 8 Tuesday, June 9	Room: Convention Center, Nanjing 403A
Session 203003	**Soil Biodiversity and Soil Health: Interactions, Indicators, and Innovative Approaches** **Conveners:** Haiyan Chu, Institute of Soil Sciences, Chinese Academy of Sciences Qi Li, Institute of Applied Ecology, Chinese Academy of Sciences **Co-Convener:** T. Martijn Bezemer, Leiden University, Netherlands.

Schedule	ID	Title	Presenter
Monday, June 8			
13:15-13:30	32265	A Next-Generation Approach to Soil Health in Brazil	Glacy Jaqueline da Silva Biotechnology Applied to Agriculture Department, Paranaense University
13:30-13:45	32051	Biochar-Compost Interactions: Impacts on Soil Health and Plant Performance in Regenerative Organic Systems	Dinesh Panday Rodale Institute
13:45-14:00	31939	Carbon Nanoparticles and Biochar–Hydrogel Nanocomposites for Sustainable Agriculture	Xiaoping Xin School of Natural Resources, Division of Plant Science and Technology, University of Missouri
14:00-14:15	34687	Soil Health Under Climate Change Era: Restoration Strategies using Nanobiotechnology and Soil Engineering	Vishnu D. Rajput Southern Federal University, Rostov on Don, Russia
14:15-14:30	35096	A Functional Molecular Framework for Scalable Soil Health Assessment	Rafael Borges da Silva Valadares Vale Institute of Techonology - Sustainable Development

Parallel Sessions

Monday, June 8 (Session 203003)			
16:30-16:45	33654	Developing a Framework for Soil Microbial Indicators	Michael Crawford Cooperative Research Centre for High Performance Soils
16:45-17:00	33247	Crop Coexistence Redefines Belowground Microbial Assembly Toward N-Cycling Archaea and Fungal Resource Networks	Angela Roccotelli Department of Agriculture, Food, Environment and Forestry (DAGRI), University of Florence, Piazzale Delle Cascine 28, 50144, Florence, Italy
17:00-17:15	31687	Contrasting global patterns and drivers of soil bacterial and fungal diversity responses to crop rotation	Chong Li University of Alberta
17:15-17:30	33043	Model-Driven Microbiome: Next-Gen Soil Bioremediation	Zhepu Ruan South China Agricultural University
17:30-17:45	32588	The role of microorganisms in changing the properties of eroded soils	Gracheva Tatiana Soil science faculty, Lomonosov Moscow State University
17:45-18:00	31942	Synergistic Effects of Clay, Hay residue, and Fertilizer in Sandy Soil	Linda E. Lindongi UWA School of Agriculture and Environment, The University of Western Australia; Faculty of Agriculture, University of Papua
18:00-18:15	35309	Rhizosphere Compartmentation Reveals Conserved and Divergent CO2 Responses Across Wheat Genetic Lineages	Qingyang zhuang Nanjing University
18:15-18:30	33400	Soil Ecological Shifts Following Land Use Conversion to Agriculture in Southern Ethiopia	Emiru Birhane Department of Land Resource Management and Environmental Protection, Mekelle University, P.O. Box 231, Tigray, Ethiopia;

Parallel Sessions

Tuesday, June 9 (Session 203003)			
09:00-09:15	31660	Steering soil microbiomes for healthier crops	T.Martijn Bezemer Institute of Biology, Leiden University
09:15-09:30	34946	The response of soil faunal and biological activities to silvicultural management in a Tuber Magnatum Pico productive area in Tuscany, Italy	Carlos Lozano Fondón Research Centre for Agriculture and Environment, Council for Agricultural Research and Economics, via di Lanciola 12\/A, 50125 Florence, Italy
09:30-09:45	33734	Impact of long-term conservation agriculture on soil biota and inter-taxonomic interactions in Andisols, Japan	Soh SUGIHARA Tokyo University of Agriculture and Technology
09:45-10:00	33080	Belowground nutrient transfer between Scots pine and bilberry mediated by ectomycorrhizas	Jie Xu Institute for Atmospheric and Earth System Research (INAR); Department of Forest Sciences, Faculty of Agriculture and Forestry, University of Helsinki
10:00-10:15	32511	Mycorrhizal fungal communities in Sarayaku territory: Impact of traditional agricultural practices	Alex Dahua-Machoa
10:15-10:30	32113	Soil Enzyme Activities and Microbial Biomass Biomarker Associated with the Integration of Cereal Rye to Improve Tomato Soil-Borne Disease Suppression and Yield	Nicola Lorenz The Ohio State University

Parallel Sessions

Tuesday, June 9 (Session 203003)			
11:15-11:30	34585	Predatory protists - crucial drivers of soil antibiotic resistance	Thi Bao-Anh Nguyen School of Agriculture, Food and Ecosystem Sciences, Faculty of Science, The University of Melbourne, Parkville, VIC, 3010, Australia
11:30-11:45	33735	Effects of five-year of conservation agriculture on soil chemistry and soil biological communities in Japan	Shinichi Watanabe Tokyo University of Agriculture and Technology
11:45-12:00	32902	Permanent spontaneous vegetation cover as a strategy to enhance soil multifunctionality in perennial crops in the Mediterranean basin	Alicia Morugán-Coronado Departamento de Ingeniería Agronómica, Unitécnica de Cartagena
12:00-12:15	32825	Harnessing Soil Cyanobacteria for Resilient Agriculture: Evidence from a 20-Year Mediterranean Orchard Trial	Adriano Sofo University of Basilicata
13:30-13:45	32047	A data-driven methodology to identify key biological indicators linked with ecosystem services in agricultural soils	Alberto Garre Universidad Politecnica de Cartagena
13:45-14:00	32435	Soil organisms from multiple trophic levels regulate respiration in dryland purple soil	Zhiyuan Yao Institute of Mountain Hazards and Environment, Chinese Academy of Sciences
14:00-14:15	32556	Auxotrophic bacteria in maize rhizosphere and bulk soil: insights into microbial dependencies	Gabriel de Castro Theodoro University of São Paulo
14:15-14:30	31658	Enzyme-Mediated Nutrient Dynamics in Cover Crop Systems: Temporal and Spatial Optimization Strategies	Oluwasegun J. Olubisi University of Florida | IFAS, School of Natural Resources and Environment, Gulf Coast Research and Education Center, Wimauma, FL 33598, USA
14:30-14:45	30618	Evaluating tillage effects on soil biodiversity across functional groups using extracellular eDNA	Philippe Belliard Zoology Department, Universität Innsbruck

Parallel Sessions

Tuesday, June 9 (Session 203003)			
16:30-16:45	33842	Overlooked migration risk of resistomes in mining soil environments	Li Tian Sun Yat-sen University
16:45-17:00	32561	Soil management drives microbial diversity patterns and community structure under Cd and Cr contamination	Jussara Borges Regitano Deoartment of Soil Science, ESALQ\/USP
17:00-17:15	31678	Rewiring Micro-Food Webs: How Copper Nanopesticides Can Reshape Nitrogen Fluxes via Trophic Decoupling	Xuchen Yan Shanghai Jiao Tong University
17:15-17:30	31585	Long-Term Effects of Nitrogen and Lime Application on Plant-Microbial Interactions and Soil Carbon Stability in a Semi-Arid Grassland	Kwenama Buthelezi School of Agricultural, Earth and Environmental Sciences, University of KwaZulu-Natal
17:30-17:45	319B24	Biochar effects on soil physicochemical properties and biological activity in Mediterranean agricultural soils	Irene Ortiz-Bernad University of Granada
17:45-18:00	36070	Coupling of Intraspecific Root Traits and Rhizosphere Fungal Communities in Cynodon dactylon across Hydrological Gradients of a Reservoir Drawdown Zone	Xiaoxiao Wang Chongqing Institute of Green and Intelligent Technology, Chinese Academy of Sciences
18:00-18:15	31709	The effect of iron-bound organic carbon on fungal denitrification in regulating upland red soils N2O emission	Huifang Xu Jiangxi Agricultural University
18:15-18:30	33338	Conservation Tillage Reduces Mycotoxin Contamination in Black-Soil Maize Systems	Mengtian Chen China Agricultural University

Parallel Sessions

Thursday, June 11	Room: Expo Center, Hall 7, 7201
Session 203004	**Soil Biogeochemistry in Wetlands: Foundations for Restoration and Climate Resilience** **Convener:** Dominik Zak, Department of Ecoscience, Aarhus University, Aarhus, Denmark **Co-Convener:** Ying Zhao, College of Hydraulic and Civil Engineering, Ludong University, China

Schedule	ID	Title	Presenter
11:15-11:45	319B20	Enzymatic latch	Chris Freeman School of Environmental & Natural Sciences, Bangor University
11:45-12:00	36303	Redox processes of particular organic matter in mediating carbon emissions in peatlands	Hongyan Wang Nanjing University of Information Science and Technology
12:00-12:15	34563	Role of Iron Minerals in Carbon Stabilization in Redox-Active Ecosystems	Amanda Duim Ferreira University of Sao Paulo
13:30-13:45	33833	Thiol-activated ROS generation by particulate organic matter: The overlooked role of interface-accelerated organic radical chain reaction	Yixuan Wang Nanjing University
13:45-14:00	32638	Millimeter-scale niche differentiation of N-cycling microorganisms across the soil-water interface has implications for N2O emissions from wetlands	Yu-Jia Cai Shenzhen University
14:00-14:15	32832	Nitrogen input regulates soil carbon fixation via microbial-driven mineral-associated organic carbon formation in wetlands	Shouyang Luo Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
14:15-14:30	34139	Impact of Phenolic Additions on Microbial Properties of Peatland	Hojeong Kang North China University of Water Resources and Electric Power

Parallel Sessions

Thursday, June 11 (Session 203004)			
14:30-14:45	34418	Microbially Mediated Mechanisms of PFAS-Induced Soil Carbon Priming Effects in Mangrove Ecosystems	Meiqi Zhao Sun Yat-sen University
14:45-15:00	34417	Soil structure determines dissolved organic carbon release from peat soils	Ji QI Faculty of Agriculture, Civil and Environmental Engineering, University of Rostock, Rostock, Germany
15:00-15:15	34937	Vertical Heterogeneity of Soil Arsenic Distribution and Its Relationship with Iron-Manganese Minerals Geochemical Barrier Combined with Microbial Effects	Shengkai Wang Tohoku University
16:30-16:45	35920	Coupled effects of human activities and river-Lake interactions evolution alter sources and fate of sedimentary organic carbon in a typical river-Lake system	Shilan Wang Hunan Normal University
16:45-17:00	32471	Exploiting Soil Recalcitrant Phosphorus (P) Drives Invasion: Adaptive P-acquisition Strategies of Spartina alterniflora in Chinese Coast	Jinguo Hua XiamenUniversity
17:00-17:15	32750	Climate warming suppresses the preservation of mineral-associated organic carbon in peatlands	Liang Yang Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
17:15-17:30	31635	Nonlinear response of anaerobic methane oxidation to water table drawdown in peatlands under climate warming	Lichao Fan Northwest A&F University
17:30-17:45	34010	Water level regulation for reducing carbon emissions in urban restored wetlands	Kangting Ouyang Sun Yat-sen University
17:45-18:00	34770	Recovery of wetland soil function under passive and active hydrological restoration: evidence from multi-decadal spectral indicators	Christopher Auricht Auricht Projects and Adelaide University
18:00-18:15	34138	Planting density constrains soil organic carbon pools during native plant restoration following Spartina alterniflora removal across invasion chronosequences	Jingfeng Wang Beijing Normal University

Parallel Sessions

Monday, June 8 Tuesday, June 9	Room: Convention Center, Nanjing 402B
Session 203005	**Soil Microbiomes - Importance For Climate Resilient Future, Degraded Lands Restoration And Plant Health Control** **Convener:** Magdalena Frąc, Institute of Agrophysics, Polish Academy of Sciences, Lublin, Poland **Co-Conveners:** Alberto Acedo - Biome Makers Inc., USA Ellen Kandeler - University of Hohenheim, Stuttgart, Germany Shamina Imran Pathan - University of Florence, Italy Anna Walkiewicz - Institute of Agrophysics, Polish Academy of Sciences, Poland

Schedule	ID	Title	Presenter
		Monday, June 8	
13:15-13:30	36591	Contrasting patterns of belowground biodiversity homogenization across urban greenspaces	Francisco Rocha Laboratorio de Biodiversidad y Funcionamiento Ecosistémico, Instituto de Recursos Naturales y Agrobiología de Sevilla (IRNAS), CSIC, Sevilla, Spain
13:30-13:45	34163	Tracing the dynamic life story of soil microbial hotspots	Seyed Sajjad Hosseini Department of Soil Science, Faculty of Agriculture, Ferdowsi University of Mashhad, Mashhad, Iran ; Department of Soil and Plant Microbiome, Institute of Phytopathology, Christian-Albrechts-University of Kiel, Kiel, Germany
13:45-14:00	34523	Establishing Genetic, Phylogenetic and Functional Mechanisms that Shape Acidobacteriota Diversity of Arctic Tundra and Boreal Forest Soils	Max Häggblom Rutgers University - New Brunswick

Parallel Sessions

Monday, June 8 (Session 203005)			
14:00-14:15	35857	Integrated impacts of land use intensification on greenhouse gas emissions and soil microbial communities in the Taihu Lake Region: patterns, mechanisms, and implications	Weishou Shen Nanjing University of Information Science and Technology
14:15-14:30	33268	Long-term soil storage highlights the role of precipitation history in microbial dynamics and CO2 emissions	Kirill Bogdanov University of Otago, Department of Microbiology and Immunology, Dunedin, New Zealand
14:30-14:45	32477	Methanotrophic activity as a driver of soil carbon cycling in agricultural soils	Anna Walkiewicz Institute of Agrophysics, Polish Academy of Sciences
14:45-15:00	36012	Fungal community shifts govern microbial carbon use efficiency across an elevation gradient at Qinling mountain, China	Yangquanwei Zhong Northwestern Polytechnical University
16:30-16:45	31850	Shrub-Crop Microbiome and Mycorrhizae Hyphal Interactions: A Novel Rhizosphere Alliance to Mitigate Drought and Promote Beneficial Microorganisms in the Sahel	Richard Dick Ohio State University, USA
16:45-17:00	33099	Beyond plant diversity: plant productivity responses to extreme drought are linked to arbuscular mycorrhizal fungal diversity	Wei Fu Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
17:00-17:15	32528	Mycorrhiza Helper Streptomycetes Strains for Combating Phytophthora Blight	Junli Hu State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences
17:15-17:30	35806	Fungal mutualism in plant growth: dark septate endophytes and arbuscular mycorrhizal colonization in soybean (Glycine max)	Harshi K. Gamage Queensland Alliance for Agriculture and Food Innovation, The University of Queensland, St Lucia, QLD 4072, Australia
17:30-17:45	31648	A Niche-Based Approach of Endemic Cyanobacteria in Soil and Water Conservation in Saline Soils	Sudabeh Gharemahmudl Postdoctoral Fellow, Department of Watershed Management Engineering, Faculty of Natural Resources, Tarbiat Modares University

Parallel Sessions

Tuesday, June 9 (Session 203005)			
09:00-09:15	36523	Soil Bacterial Succession as a Driver of Rhizosphere Function: Wheat-Derived Plant Growth-Promoting Rhizobacteria and Plant Stress Resilience	Asmae Boumezgane School of Animal, Rural and Environmental Sciences, Nottingham Trent University, UK
09:15-09:30	34094	Unraveling the mechanisms of halotolerant plant growth-promoting microbes in saline-alkaline habitats through microbial diversity, functional traits and transcriptomics	Jianrong Huang Henan University
09:30-09:45	35991	Soil microbial communities regulate plant response to drought stress	Tianci Zhao University of Groningen
09:45-10:00	33502	Applying wild (NatCom) soil microbiomes to alleviate primary stressors for peas and wheat	Francois P. Teste Agriculture and Agri-Food Canada (AAFC) and University of Saskatchewan
10:00-10:15	31715	A SWEET Challenge: Less Sugar for Rhizospheric Microbiome Under the Successive Wheat Cultivation	Mehdi Rashtbari Department of Soil and Plant Microbiome, Institute of Phytopathology, Christian-Albrechts-University of Kiel
10:15-10:30	31604	Impacts of soil biostimulants on ‘Valencia' sweet orange performance on Flatwoods and Ridge soils in Florida	Duplicate Sambani University of Florida, Soil, Water and Ecosystem Sciences Departments, Institute of Food and Agricultural Sciences, Citrus Research and Education Center
10:30-10:45	34361	Unlocking Multifunctionality: The Interplay Between Legume-Cereal Intercropping, Soil Microbial Communities, and Ecosystem Cycles.	Shamina Imran Pathan Department of Agriculture, Food, Environment and Forestry (DAGRI), University of Florence, Piazzale Delle Cascine 28, 50144, Florence, Italy

Parallel Sessions

Tuesday, June 9 (Session 203005)			
11:15-11:30	36352	Effects of inter-row management and cover crops on vineyard rhizosphere microbial communities	Barnabas Kovacs University of Tokaj
11:30-11:45	34867	Impact of multiple driving factors on soil bacterial community dynamics in a wheat-maize/soybean rotation system in the North China	Ya Huang Nanjing Agricultural University
11:45-12:00	32674	Leguminous Cover Crops Enhance Soil Microbial Communities and Tea Quality via Rhizosphere Microbiome Modulation	Kadarkarai Murugan Department of Zoology, School of Life Sciences, Bharathiar University
12:00-12:15	35846	Synergistic Soil Remediation and Microbial Network Reconstruction: Leguminous Cover Crops and Probiotics in Degraded Dry-Hot Valley Coffee Plantations	Yushuang Yang Southwest Forestry University
13:30-13:45	35995	Assessing the Role of Soil Amendments and Root-Associated Fungi in Anaerobic Soil Disinfestation	James Littrell University of Tennessee, Knoxville
13:45-14:00	34311	Ozonate Irrigation: Soil Microbial Stress, Nematode Suppression and Tomato Brown Rugose Fruit Virus control	Sofia Maria Muscarella Department of Agricultural, Food and Forest Sciences, University of Palermo, Palermo, Italy
14:00-14:15	33224	The stem microbiome assists maize in resisting stalk rot	Da Li Institute of Microbiology, Chinese Academy of Sciences
14:15-14:30	32698	Global Change and Human Activity on Soil Microbial Community and Metabolism	Huaihai Chen Sun Yat-sen University
16:30-16:45	32496	Combined Microbial Inoculation and Reduced Inorganic Fertilization Enhances Diversity and Functionality in Potato Rhizosphere Microbiome at Field Scale	Raul Zornoza Universidad Politecnica de Cartagena
16:45-17:00	34414	Recovery Mechanism of Kobresia humilis in Alpine Meadows	Junxi Li SichuanUniversity
17:00-17:15	34395	When Plants Choose Their Microbes: Genotype-Driven Assembly of Salt-Adaptive Microbiomes in Wheat	Mahdi Shahabi Rokni Department of Soil and Plant Microbiome, Institute of Phytopathology and Plant Protection, Faculty of Agricultural and Nutritional Sciences, Christian-Albrechts University of Kiel, Germany

Parallel Sessions

Tuesday, June 9	Room: Expo Center, Hall 7, 7201
Session 203007	**Diversity Dynamics and Ecosystem Functions in Soil Microbial Ecology**
	Convener: Zhongjun JIA, Northeast Institute of Geography and Agroecology, CAS Institute of Soil Science, CAS **Co-Conveners:** Xue-Xian Zhang, University of Auckland Makoto Ikenaga, Kagoshima University Junjie Liu, Northeast Institute of Geography and Agroecology, CAS Cécile Gubry-Rangin, University of Aberdeen, UK

Schedule	ID	Title	Presenter
09:00-09:10	319B29	Challenges and opportunities in interpreting the complex microbial interactions in soil	Xue-Xian Zhang School of Biological Sciences, University of Auckland
09:10-09:30	320B21	Conservational agriculture for achieving soil and human health and enhancing the climate-regulating function of agroecosystems	Liudmila Orlova
09:30-09:50	32932	Carbon monoxide metabolism as a driver of volcanic soil colonisation	Marcela Hernandez University of East Anglia
09:50-10:10	319B28	Does land use conversion from temperate steppe to farmland increase broad scale homogeneity of soil biota and its functional genes?	Junjie Liu State Key Laboratory of Black Soils Conservation and Utilization, Key Laboratory of Mollisols Agroecology, Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
10:10-10:25	34383	Cobamide Auxotrophy and Unexpected Cobamide Synthesis Potential in Organohalide-respiring Dehalococcoidia	Yiru Cui Institute of Applied Ecology, Chinese Academy of Sciences

Parallel Sessions

Tuesday, June 9 (Session 203007)			
10:25-10:50	35164	Microbial growth is the key to soil organic carbon cycling	Qing-Fang Bi Max-Planck Institution of Biogeochemistry, Jena, Germany; Martin Luther University Halle-Wittenberg, Halle (Saale), Germany
10:50-11:05	34897	Widespread presence of extraordinary high-affinity of atmospheric methane oxidation by conventional methanotrophs in paddy soils across China	Yan Zheng Northeast Institute of Geography and Agroecology, Chinese Academy of Science, Changchun 130102, PR China
11:15-11:30	35733	Synergistic remediation of desertification and carbon sequestration in extreme environments via region-tailored acclimated microbial-biochar systems	Chao Song Institute of Hydrogeology and Environmental Geology, Chinese Academy of Geological Sciences
11:30-11:45	34696	Effects of Perennial and Annual Plant Life Forms on Rhizosphere Bacterial Communities in Saline-Alkali Desert Soils	Ying Zhu Institute of Biology, Gansu Academy of Sciences
11:45-12:00	35990	Summer drought impacts micropredator abundance and microbial foodweb structure in a rewetted fen peatland	Die Hu Greifswald of University
12:00-12:15	33370	Climatic stability predominates over soil properties in structuring soil antibiotic resistance across Australia	Mingming Du The University of Sydney
12:15-12:30	319B27	Life and death of ammonia oxidizers drives soil organic carbon accumulation in long-term different fertilization soils	Xueru Huang College of Land and Environment, Shenyang Agricultural University
13:30-13:50	35298	Microbial interactions drive microbial succession during soil formation	Kazuo Isobe Peking University
13:50-14:10	32886	Wetland Age and Seasonality Drive the Succession of Active Methanotrophs in Constructed Wetlands	Yo-Jin Shiau Department of Bioenvironmental Systems Engineering, National Taiwan University
14:10-14:30	32888	Leveraging the root economics space: outsourcing rice varieties outperform do-it-self strategies under stress	Fang Li Henan Agricultural University
14:30-14:45	32415	Experimental drought drives divergent succession of soil microbiota	Sihang Deng Tsinghua University

Parallel Sessions

Tuesday, June 9 (Session 203007)			
14:45-15:00	34309	Tropical rubber plantations' expansion alters multiple ecosystem functions and C storage	Ashutosh Kumar Singh Xishuangbanna Tropical Botanical Garden, Chinese Academy of Sciences, Menglun, Yunnan 666303, China
15:00-15:15	35051	Decoding Deep Soil Microbial Response Dynamics to Afforestation in Semiarid Regions: Biotic-Abiotic Trade-offs Under Land-Use Transition	Rongrong Zheng Research Center for Eco-Environmental Sciences
16:30-16:50	36045	Effects of Disturbance Intensity on Soil Microbial Diversity, Composition, and Network Complexity in Coastal Georgia, USA	Tiehang Wu Department of Biology, Georgia Southern University
16:50-17:10	33684	Eco-evolutionary patterns of microbial engine that drives reduction of greenhouse gas	Zhongjun Jia Institute of Soil Science, Chinese Academy of Sciences
17:10-17:25	32839	Analysis of Soil Microbial Community Composition and Diversity Under Different Forest-Medicinal Plant Intercropping Patterns	Shutong SANG Experimental Center of Subtropical Forestry
17:25-17:40	34194	Effects of Different Straw Return Methods on Soil Microbial Community Structure and Diversity	Yuexia Yuan Inner Mongolia Agricultural University
17:40-17:55	36085	The Effect of Nitrogen Enrichment on Soil Fungal and Bacterial Community Assembly Processes and Phylogenetic Diversity in Wetland	Yiting Zhao Key Laboratory of Black Soils Conservation and Utilization, Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, Changchun 130102, PR China; University of Chinese Academy of Sciences, Beijing 100049, PR China
17:55-18:10	35292	Elucidating Soil Microbial Community Activity Through Sipros-and-Aerith-Assisted Proteomic and Metabolomic Stable Isotope Probing	Yi Xiong The University of Oklahoma

Parallel Sessions

Monday, June 8	Room: Convention Center, Nanjing 403B
Session 204003	**Disciplinary Development and Interdisciplinary Frontiers in Soil Mineralogy** **Convener:** Sofia N. Lessovaia, St.-Petersburg State University (SPSU), Russia **Co-Convener:** Edson Campanhola Bortoluzzi, the University of Passo Fundo (UPF), Brazil

Schedule	ID	Title	Presenter
16:30-16:45	33047	Mineralogical and Geochemical Contributions to the Study of Clays and Clay Minerals in Africa	Georges Ekosse University of Venda
16:45-17:00	33046	Contributions to the Study of Geophagic Clays in Africa	Georges Ekosse University of Venda
17:00-17:15	36592	Mineralogical Composition of Bulk and Clay Fractions in Mongolian Soils: Insights from X-Ray Diffraction Across Arid to Forest-Steppe Gradients	Undrakh-Od Baatar Institute of Soil Science and Land Evaluation, Hohenheim University, Stuttgart, Germany; Mongolia
17:15-17:30	32088	Clays as Therapeutic Agents: A Focus on Mineralogy and Geochemistry of Geophagic Clays at Mfensi-Adankwame in the Ashanti Region of Ghana and their Healing Properties	Rasheed Mohammed Abdul State Key Laboratory of Environmental Geochemistry, Institute of Geochemistry, Chinese Academy of Sciences; University of Chinese Academy of Sciences; Department of Earth Science, School of Physical Sciences, C. K. Tedam University of Technology and Applied Sciences
17:30-17:45	32394	Models of rock weathering in soil environments based on rock fractal geometry	Sofia N. Lessovaia St.-Petersburg State University
17:45-18:15	-	Workshop	-

Parallel Sessions

Friday, June 12	Room: Expo Center, Hall 7, 7201
Session 206001	**Hydropedology: Addressing Real-World Problems Through Interdisciplinary Science** **Convener:** Johan van Tol, Department Soil, Crop and Climate Sciences, University of the Free State, South Africa **Co-Convener:** LI Xiaoyan, Department of Geography, Beijing Normal University

Schedule	ID	Title	Presenter
09:00-09:15	34921	Pore Architecture, Water Dynamics, and Climate Sensitivity of Mountain Volcanic Soils: Integrating SEM-DIA and NMR Relaxometry for Hydropedological Assessment	Di Iorio Erika Molise University
09:15-09:30	35574	Infiltration-Runoff Processes in Soil-Epikarst Systems on Karst Hillslope in Southwest China	Hongsong Chen; Jun Zhang Institute of Subtropical Agriculture, Chinese Academy of Sciences
09:30-09:45	36355	Diagnosing Non-Rigid Soil Water Flow through Window-Scale Evolution of Hydraulic Parameters with Physics-Informed Learning	Kai Chang China University of Geosciences, Wuhan
09:45-10:00	33294	Deciphering Soil Water-Carbon Coupling in the Earth's Critical Zone and Its Environmental and Edaphic Controls	Xi Zhang The University of Tennessee
10:00-10:15	33676	Modelling water retention curves for hydrophobic granular soils	Tingting Zhao The University of Edinburgh

Parallel Sessions

Friday, June 12 (Session 206001)			
10:15-10:30	32429	Addressing water security in DOCG vineyards: a hydropedological framework linking soil water balance, plant stress, and berry quality	Antonello Bonfante National Research Council of Italy (CNR), ISAFOM
10:30-10:45	32611	Runoff and Sediment Response to Rainfall and Vegetation Cover in the Toutun River Basin（Xinjiang，China）	Liu Li Xinjiang Agricultural University
10:45-11:00	31653	Soil aggregate stability along a gradient of flooding intensity in the riparian zone: the role of root functional traits	Ping Huang Chongqing Institute of Green and Intelligent Technology, Chinese Academy of Sciences
11:15-11:30	31670	Evapotranspiration varies across different landscape units, influenced by hillslope position, soil properties and vegetation: An example from the Qinghai-Tibet Plateau	Yurova Alla State Key Laboratory of Cryospheric Science and Frozen Soil Engineering, Northwest Institute of Eco-environment and Resources CAS
11:30-11:45	36245	Development of Environmental Benchmark of Cr(VI) in Soils for the Protection of Groundwater Quality	Jing Song Institute of Soil Science, Chinese Academy of Sciences, Nanjing, China
11:45-12:00	36325	Quantitative Characterization and Prediction Model for the Evolution of Soil Cracks in the Daqing Region	Xin Zheng Heilongjiang Bayi Agricultural University
12:00-12:15	34708	Redistribution of hydrological and dissolved nutrient by self-organized shrubs: strategies to collect rain and nutrient for surviving in drylands	Guangyao Gao Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
12:15-12:30	33006	Spatiotemporal variations and driving factors of groundwater ecosystem service value in a typical arid region：A case study of the Xinjiang, China	Adila Ailaiti Nanjing University

Parallel Sessions

Thursday, June 11	Room: Expo Center, Hall 7, 7203
Session 207001	**Modelling Soil Processes from Ped to Global Scale** **Convener:** Yonggen Zhang, School of Earth System Science, Tianjin University, Tianjin, China **Co-Conveners:** Lutz Weihermüller, Institute Agrosphere IBG-3, Forschungszentrum Jülich GmbH, 52428 Jülich, Germany Martine van der Ploeg, Hydrology and Quantitative Water Management Group, Dept. Environmental Sciences, Wageningen University, Wageningen, the Netherlands Attila Nemes, Faculty of Environmental Sciences and Natural Resource Management, Norwegian University of Life Sciences, Ås, Norway Wenhao Shi, School of Earth System Science, Tianjin University, Tianjin, China Yijian Zeng, Faculty of Geo-Information Science and Earth Observation, University of Twente, 7522 NB Enschede, the Netherlands

Schedule	ID	Title	Presenter
11:15-11:30	34252	Multi-scale simulations of soil transport properties with dynamic soil structure: combination of molecular, micro and continuum approaches	Kirill M. Gerke Center for Computational Physics, Landau School for Physics and Research, Moscow Institute of Physics and Technology
11:30-11:45	35324	Predicting soil and macropore hydraulic properties: combination of direct simulations and machine learning	Vladimir N. Dolgushev Center for Computational Physics, Landau School for Physics and Research, Moscow Institute of Physics and Technology (Moscow Region, Russia)
11:45-12:00	33321	Coupling soil biogeochemical processes and structural dynamics in a pore-scale model for an advanced understanding of organic carbon and nitrogen turnover	Maximilian Rötzer Modeling and Numerics, Department of Mathematics, University of Erlangen-Nürnberg, Erlangen, Germany

Parallel Sessions

Thursday, June 11 (Session 207001)			
12:00-12:15	34105	Quantitative Analysis of Pore Scale Factors Effecting Permeability in Porous Media	Wenjing Qin Taiyuan University of Technology
13:30-13:45	31450	Probabilistic and Entropy Models of Soil Properties for Contemporary Processes Assessment	Irina Mikheeva Institute of Soil Science and Agrochemistry of Siberian Branch of Russian Academy of Sciences
13:45-14:00	33100	Modeling on-farm spatial variability of crop yield	Ole Wendroth Department of Plant & Soil Sciences, University of Kentucky
14:00-14:15	32369	Differentiable Hybrid Modeling for Data-Driven Discovery of Hidden Processes in Soil Water Retention	Sarem Norouzi Department of Agroecology, Aarhus University; Department of Earth Sciences and Engineering, Imperial College London
14:15-14:30	34621	Predicting the Impacts of Metal Nanoparticles on Soil Properties: A Machine-Learning-Based Study of Soil Health Dynamics	Yaping Lyu University of Science and Technology of China
14:30-14:45	31985	Advancing Daisy's denitrification function to improve predictions of nitrous oxide emissions from agricultural soils	Tobias Klöffel Department of Plant and Environment, University of Copenhagen
14:45-15:00	36222	Towards predicting plant uptake of trace elements with a mechanistic mass-balance model	Hadee Thompson-Morrison Bioeconomy Science Institute

Parallel Sessions

Thursday, June 11 (Session 207001)			
16:30-16:45	36201	MapBiomas Soil: Soil Information across Four Decades of Land Use and Land Cover Change	Taciara Zborowski Horst Federal Technological University of Paraná (Department of Agronomy, Dois Vizinhos, Paraná, Brazil)
16:45-17:00	34977	Evaluating Conditioned Probabilistic Subsampling for the Validation of 3D Regional Subsurface Models using Legacy Data	Pablo De Weerdt Ghent University
17:00-17:15	35241	SoilData: A MapBiomas Initiative for Soil Data Rescue, Curation, and Open Science in Brazil	Alessandro Samuel-Rosa Federal Technological University of Paraná (Department of Agronomy, Santa Helena, Paraná, Brazil)
17:15-17:30	35271	Estimation of Soil Temperature at Depth Using Time Series of Satellite Imagery	Seyed Kazem Alavipanah Department of Remote Sensing and GIS, Faculty of Geography, University of Tehran, Iran
17:30-17:45	33826	Fusing ERA5-Land and SMAP L4 for an Improved Global Soil Moisture Product	Yonggen Zhang Tianjin University
17:45-18:15	-	Session Wrap-up & Panel Discussion	All Speakers / Convenor

Parallel Sessions

Friday, June 12	Room: Expo Center, Hall 7, 7203
Session 207002	**Soil Erosion Modelling: Global Alliance** **Convener:** Pasquale Borrelli, Department of Science, Roma Tre University, Rome, Italy **Co-Convener:** Christine Alewell, Department of Environmental Sciences, University of Basel, Basel, Switzerland Panos Panagos, European Commission, Joint Research Centre (JRC), Ispra, Italy Jae E. Yang, Department of Biological Environment, Kangwon National University, Chuncheon, Republic of Korea

Schedule	ID	Title	Presenter
09:00-09:10	-	Convenors Message - Ongoing collaborative research activities	Pasquale Borrelli
09:10-09:35	32790	Assessments of Gully Erosion Susceptibility in Typical Thick-Layer Mollisol Region of Northeast China	Fenli Zheng Northwest A & F University
09:35-10:00	34859	Impacts of Soil Erosion on Soil Organic Carbon Dynamics and Carbon Neutrality	Jae Yang Department of Biological Environment, Kangwon National University
10:00-10:15	36203	Mobilizing Legacy Data for Continental-Scale Erosion Modelling: The MapBiomas SoilData Initiative in Brazil	Taciara Zborowski Horst Federal Technological University of Paraná (Department of Agronomy, Dois Vizinhos, Paraná, Brazil)

Parallel Sessions

Friday, June 12 (Session 207002)			
10:15-10:30	32393	InSAR-based Quantitative Remote Sensing of Spatiotemporal Characteristics of Soil Erosion	Hailong He Northwest A&F University, University of Manitoba
10:30-10:45	32085	Spectra-based predictive mapping of soil erosion rates in sloping croplands	Pu Shi Jilin University
10:45-11:00	34943	Impacts of cascading check dams on sediment yield in the middle Yellow River Basin: Insights from 50 years of grid-cell-level simulation	Guangyao Gao Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
11:15-11:30	32018	The influence of the soil cover on the reliability of soil erosion modelling on the Central Russian Upland	Andrey Zhidkin V.V. Dokuchaev Soil Science Institute
11:30-11:45	34290	Pasture Restoration Improves Runoff, Soil loss, and Sediment Sorting in a Brazilian Karst Basin	Henrique Marinho Leite Chaves Watershed Mgt. Lab, University of Brasilia

Parallel Sessions

Thursday, June 11	Room: Convention Center, Nanjing 209
Session 301001	**Better Management of Organic Agro-Waste in Response to Various Global Environmental Issues** **Convener:** Morihiro Maeda, Okayama University, IUSS-Commission 3.1 vice-chair **Co-Convener:** Masato Nakamura, National Agriculture and Food Research Organization

Schedule	ID	Title	Presenter
11:15-11:30	35661	Global Potential Effects Analysis of Biochar on Crop Yields and Soil Quality	Zhichao Xu College of Resources and Environment, University of Chinese Academy of Sciences
11:30-11:45	33693	Evaluating nutrient dynamics in marginal soils amended with biochar and torrefied biomass with Plant Root Simulator probe	Asfaw Bekele Imperial Oil Resources Limited
11:45-12:00	33567	Silicon Rich Biochar from Crop Residues Reduces Heavy Metals in Soil and Paddy Rice in Central Vietnam	Thi Thai Hoa Hoang University of Agriculture and Forestry, Hue University, Hue city, Vietnam
12:00-12:15	32982	Removal of methylene blue using biochar from compressed rice straw	Yasushi Mori Okayama University
12:15-12:30	32877	Better agro-waste management for soil health	Morihiro Maeda Okayama University
13:30-13:45	35073	Biotic and Abiotic Catalytic Strategies for Accelerated Humic Substance Formation	Mahmoud National Chung Hsing University
13:45-14:00	32855	15N tracing reveals nitrogen uptake dynamics and retention under contrasting irrigation and residue management in paddy soils	Yo-Jin Shiau Department of Bioenvironmental Systems Engineering, National Taiwan University

Parallel Sessions

Thursday, June 11 (Session 301001)			
14:00-14:15	32210	Facultative heap compost effects on soil N_2O, CO_2, and CH_4 emissions under aerobic incubation	Tran Thi Minh Chau University of Agriculture and Forestry, Hue University
14:15-14:30	32184	CO2 emission from forest soils in Western Japan as affected by water repellency	Dewpura A.L. Leelamanie Faculty of Agriculture, University of Ruuhna
14:30-14:45	32170	Current Situations of Antibiotic Resistance Genes in Compost, Soil, and Sediment in Vietnam	Lingxue Gao Graduate School of Environmental, Life, Natural Science and Technology, Okayama University
14:45-15:00	33344	Anaerobic fermentation of food waste to connect fork to farm and minimize greenhouse gas emissions	Samantha Kehoe University of Reading
16:30-16:45	34604	Effects of repeated application of horse dung manure on the accumulation of the elements in topsoil of paddy fields -A case of newly reclaimed paddy fields in Kyoto University Farm, Japan-	Nirmala Juita Life Environment Conservation Science, The United Graduate School of Agricultural Science, Ehime University, Matsuyama, Japan
16:45-17:00	33985	Assessment of the effects of cocoa pod husk and cattle manure on old cocoa plantation soil chemistry under tropical lowland agroclimatic conditions in Papua New Guinea	Shirleyna Aipa The PNG University of Natural Resources and Environment
17:00-17:15	30292	Reconciling carbon sequestration value and soil health benefit of organic amendments	Nanthi Bolan UWA School of Agriculture and Environment; The University of Western Australia
17:15-17:30	319B31	An Evaluation of the Quantity-Intensity Relationship of Potassium (K) on Some Lowland Rice-Growing Soils	Sanjib Kar University of Calcutta
17:30-17:45	33854	Effects of Application of Ferment Solution Produced from Discarded Vegetable Leaves on Soil Microbial Community and Celery Growth	Zi-Yue Zhang Shanghai University

Parallel Sessions

Monday, June 8	Room: Convention Center, Nanjing 207
Session 301002	**Soil Evaluation and Land Use Planning for Sustaining Productivity** **Convener:** Jagdish Prasad, Former Principal Scientist and Head, Division of Soil Resource Studies, ICAR-National Bureau of Soil Survey and Land Use Planning, Nagpur- 440 033 India **Co-Convener:** Morihiro Maeda, Professor Department of Rural and Environmental Sciences Graduate School of Environmental, Life, Natural Science and Technology Okayama University, 3-1-1, Tsushima-Naka, Kita-Ku, Okayama 700-8530, Japan

Schedule	ID	Title	Presenter
16:30-16:45	35286	Soil multifunctionality assessment in Grenoble Alpes metropolis using the MUSE method for sustainable land use planning	Amazigh Ouaksel BRGM; IRSTV
16:45-17:00	35118	Soil-Geochemical Controls of NDVI Seasonality in Steppe ecosystems of the Turano-Uyuk Intramontane Depression (Tuva, South Siberia)	Natalia Ilinova Lomonosov Moscow State University
17:00-17:15	33600	Spatial heterogeneity and driving factors of five global arable land datasets in China under a ‘single cropland map' framework	Surina College of Resources and Environmental Sciences, Inner Mongolia Agricultural University, Hohhot, 010011, China
17:15-17:30	32984	WRB-Harmonised Soil Mapping to Support Sustainable Land Use Planning in Mediterranean Regions	Samuel Guerreiro LEAF—Linking Landscape, Environment, Agriculture and Food Research Centre, Instituto Superior de Agronomia, Universidade de Lisboa, Tapada da Ajuda, 1349-017 Lisboa, Portugal; 2Santarém Polytechnic University, School of Agriculture

Parallel Sessions

Monday, June 8 (Session 301002)			
17:30-17:45	33736	Long-term soil multifunctionality under climate trajectories, land-use transitions, and management practices	C. Walter SAS, Institut Agro Rennes-Angers, INRAE
17:45-18:00	36587	Assessing the Physico-Chemical Properties and Fertility Status of Selected South African Wetland Soils Using XRF, SEM, and Soil Fertility Index	FR Kutu School of Agricultural Sciences, Faculty of Agriculture and Natural Sciences, University of Mpumalanga, Mbombela, 1200, South Africa
18:00-18:15	33685	Background concentration and range of potentially toxic elements in Lebanese soils for land suitability assessment	Talal Darwish National Council for Scientific Research-CNRS Lebanon
18:15-18:30	32873	An interactive land suitability tool for Queensland, Australia	Ben Harms Department of the Environment, Tourism, Science and Innovation
18:30-18:45	32462	Preliminary Study on a Method for Evaluating the Basic Soil Fertility of Medium and Low-Yielding Land in Anhui Province Based on Natural Soil Properties	Shunmeng Dou Chinese Academy of Agricultural Sciences, Institute of Agricultural Resources and Regional Planning
18:45-19:00	31889	Integrated Assessment of soil security	Amin Sharififar the University of sydney

Parallel Sessions

Monday, June 8	Room: Expo Center, Hall 8, 8203
Session 302004	**Rethinking the Planning of Soil and Water Management Under Climate Change** **Convener:** Lillian Øygarden. Chair of IUSS commission 3.2 Soil and water conservation **Co-Convener:** Dorota Dec. Vice chair of commission 3.2 Soil and water conservation

Schedule	ID	Title	Presenter
13:15-13:45	35560	Cross scale assessment of agricultural conservation practices for future erosion, soil carbon and crop yield in the Yangtze River Basin	Jichen Zhou China Agricultural University
13:45-14:00	31601	Soil Under Stress: Climate Change, Water Dynamics and Agricultural Resilience in Finland.	Kateryna Yuhai Doctorate Researcher; Department of Economics and Management; University of Helsinki
14:00-14:15	34185	Sustainability challenges of vegetation restoration on the Loess Plateau	Lei Han Chang'an University
14:15-14:30	32649	Mapping Gully Erosion Across the European Union	Pasquale Borrelli Department of Science, Roma Tre University
14:30-14:45	32535	Climate-change-induced Increase in Rain Erosivity in Germany	Karl Auerswald Technical University of Munich, School of Life Sciences

Parallel Sessions

Monday, June 8 (Session 302004)			
14:45-15:00	34484	From Free- Draining to Flood- Forming: How Compaction and Slaking Generate Runoff in Sandy Soils Under Extreme Rainfall	Paul Henry Lunt Faculty of Science and Engineering, School of Geography, Earth and Environmental Sciences, University of Plymouth, Plymouth PL4 8AA, UK
15:00-15:15	-	Discussion and questions	-
16:30-16:45	32036	Effects of testing non-AI autonomous precision deficit irrigation scheduling onto potato and raspberry crops in Poland	Rafal Wawer Institute of Soil Science and Plant Cultivation - State Research Institute
16:45-17:00	31808	Will supplemental fertigation benefit potato productions with a changing climate in Atlantic Canada?	Sheng Li Agriculture and Agri-Food Canada
17:00-17:15	34086	Theory and Demonstration of Smart Water and Soil Management Technologies for Black Soil Cropland	Huanjun Liu Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
17:15-17:30	-	Discussion and questions	-

Parallel Sessions

Tuesday, June 9	Room: Expo Center, Hall 8, 8202
Thursday, June 11 Friday, June 12	Room: Convention Center, Yangtze Room
Session 302005	**Soil Erosion and Conservation**
	Convener: Fengbao Zhang **Co-Conveners:** Fang Nufang, Northwest A&F University, China Seyed Hamidreza Sadeghi, Tarbiat Modares University, IRAN Paolo Tarolli, University of Padova, Italy Shi Zhihua, Huazhong Agricultural University, China

Schedule	ID	Title	Presenter
Tuesday, June 9			
09:00-09:15	319B96	Paleo-landscape features and their role for soil erosion initiation	Michael Maerker Working group on Soil Erosion and Feedbacks, Leibniz Centre for Agricultural Landscape Research (ZALF)
09:15-09:30	32789	Long slope erosion-deposition patterns under different tillage systems driven by multiple erosion forces in the Chinese Mollisol region	Fenli Zheng Northwest A & F University
09:30-09:45	31643	Porous Biochar Produced from Rice Waste Inhibits Soil Loss	Shr Sadeghi Tarbiat Modares University
09:45-10:00	32379	Development Characteristics and Influencing Factors of Gullies in Typical Region on the Qinghai-Xizang Plateau from 1970 to 2025	Juying Jiao Northwest A&F University

Parallel Sessions

Tuesday, June 9 (Session 302005)			
10:00-10:15	36363	Study on the dynamic changes in soil erosion and the stability of the soil organic carbon pool in the surface layer of purple soil on the slopes implemented the Grain-for-Green project	Zhengan Su Institute of Mountain Hazards and Environment, Chinese Academy of Sciences
10:15-10:30	35111	Soil and Water Conservation Planning by Estimating Complex Soil Properties from Easily Measurable Soil Properties	Manmohanjit Singh Punjab Agricultural University, India
10:30-10:45	320B39	Risk assessment of soil erosion in Central Asia under global warming via NPV cover	Chengyi Zhao, Xin Dou, Zongwen Shi School of Geographical Sciences, Nanjing University of Information Science and Technology, Nanjing 210044, China
11:15-11:30	32575	Tillage erosion - the blind spot in soil conservation	Peter Fiener University of Augsburg
11:30-11:45	31900	Setting tolerable soil loss and land management targets across New South Wales, Australia	Xihua Yang University of Technology Sydney; Northwest A&F University
11:45-12:00	33522	Check dams as a major terrestrial sink for eroded sediment and organic carbon on the Chinese Loess Plateau	Yi Zeng Northwest A&F University
12:00-12:15	34032	Temporal Dynamics and Mechanism Evolution of Biochar in Regulating Erosion Processes in China's Loess Plateau	Yuanyuan Li Zhengzhou University
12:15-12:30	32304	From regional to global tillage erosion mapping: challenges, solutions and a demonstration in Canada	Fengbao Zhang（Sheng Li） Fredericton Research and Development Center, Agriculture and Agri-Food Canada
13:30-13:45	34007	A Framework for Global Soil Erosion Mapping（GSERmap）	Rui Li Northwest A&F University
13:45-14:00	32648	Global Soil Erosion Dynamics and Drivers	Pasquale Borrelli Environmental Geosciences, University of Basel

Parallel Sessions

Tuesday, June 9 (Session 302005)			
14:00-14:15	33937	Regional Soil Erosion Survey and Mapping in the Pre-GIS Era	Qinke Yang Northwest University
14:15-14:30	33090	Soil Erosion in the European Union: A major threat for EU agriculture	Panos Panagos European Commission - Joint Research Centre
14:30-14:45	33589	Research on key algorithms for global erosion topographic factor extraction	Hongming Zhang Northwest A&F University
14:45-15:00	34785	Practical-measures investigation to achieve global soil erosion map by using sampling method	Xiaoping Zhang Northwest A&F University, Yangling, Shaanxi, 712100, China.
15:00-15:15	33665	Long-Term Dynamics and Driving Mechanisms of Wind Erosion Across China (2001-2024)	Wenyi Sun Northwest A&F University
16:30-16:45	35137	Simulation of Wind Erosion under the Influence of Topography in a Temperate Grassland Landscape	Zhuodong Zhang Beijing Normal University
16:45-17:00	34019	Global-Scale Mapping of the Non-Agricultural Cover-Management Factor (Cnon-crop) for Soil Erosion Modelling	Haijing Shi Northwest A&F University
17:00-17:15	34427	A Methodological Framework for Large-Scale Gully Erosion Assessment: Insights from Contrasting Landscapes of China	Chunmei Wang College of Urban and Environmental Sciences, Northwest University, Xi'an, 710127, China
17:15-17:30	34015	Improving Global Rainfall Erosivity by Using Regional Achievements	Bing Yin（Yun Xie） Beijing Normal University at Zhuhai
17:30-17:45	33673	Mapping and Analysis of the Global Soil Erodibility Factor (K)	Miaomiao Yang Ningxia University
17:45-18:00	33591	A topographic relief fitting mosaic method for eliminating seamlines of the SRTM and additional quasi-global DEM mosaics at 60°N latitude	Songyuan Li Northwest A&F University

18:00-18:15	34126	A Novel High-Resolution DEM Synthesis Method for Terraced Watersheds in the Loess Plateau	Xiaotian Yuan Northwest University
Thursday, June 11 (Session 302005)			
11:15-11:30	34503	Influence of Soil Cover Properties on Shallow Landslides: insights from a Pilot Basin in Southern Italy	Simona Vingiani University of Naples Federico II, Department of Agricultural Sciences Portici (NA), Italy
11:30-11:45	32470	Comparative Erodibility of UK Soils Under Different Climate Change Scenarios	Johnson Oluwaseun Odukoya Faculty of Engineering and Applied Sciences, Cranfield University
11:45-12:00	33314	A Half-Century Intensification of Lateral Carbon Transfer along the Congo Basin's Land-Ocean Aquatic Continuum	Pengzhi Zhao Earth and Life Institute, Université catholique de Louvain, 1348 Louvain-la-Neuve, Belgium.; Department Geoscience, Environment and Society-BGEOSYS, Université libre de Bruxelles, 1050 Brussels, Belgiume
12:00-12:15	36373	A Dynamic Gully Erosion Risk Assessment Framework Considering Rainfall Regime Shift in the Songnen Typical Black Soil Region	Dengnan Luo Beijing Normal University
13:30-13:45	35365	From Aerosols to Soils: A Novel Pedological Framework for Identifying Aeolian Dust Hotspots in Dried Saline Lakebeds	Hesam Ahmady-Birgani Faculty of Natural Resources Urmia University, Urmia, Iran

Parallel Sessions

Thursday, June 11 (Session 302005)			
13:45-14:00	35415	Hydrologic regime determines catchment-scale dissolved carbon export patterns	Jian Wang Huazhong Agricultural University
14:00-14:15	33795	Hydromechanical Drivers at Raindrop Scale Underpin Soil Erosion Resistance Driven by Carbon	Abdul Walid Salik School of Biological Sciences, University of Aberdeen
14:15-14:30	32492	Evaluation of Silt Socks and Wollastonite-Enhanced Socks in Sediment and Phosphorous Management	Emily Chiang University of Guelph
14:30-14:45	31883	Decoding impacts of slope length on sheet erosion based on calculus method	Zhongxuan Cao University of Chinese Academy of Sciences (UCAS); Institute of Soil and Water Conservation, Chinese Academy of Sciences and Ministry of Water Resources; Research Center of Soil and Water Conservation and Ecological Environment, Chinese Academy of Sciences and Ministry of Education; State Key Laboratory of Soil Erosion and Dryland Farming on the Loess Plateau
14:45-15:00	32830	Exploration of Multi-Scale Spatiotemporal Differentiation and Influencing Factors in Yuanmou County Based on SBAS-InSAR	Xuan Yang YunnanUniversity
15:00-15:15	36027	Response of soil erosion resistance to incorporated straw affected by different microbial inoculants in the black soil region of Northeast China	Yatong Zhang Beijing Normal University

Parallel Sessions

Thursday, June 11 (Session 302005)			
16:30-16:45	34468	Regional-Scale Variability and Environmental Drivers of Soil Erodibility factor (K) in the NW Italian Alps	Valeria Cesarini University School for Advanced Studies IUSS, Piazza della Vittoria 15, 27100 Pavia, PV, Italy
16:45-17:00	34496	Spatial Distribution and Erosional Significance of Hollows in Agricultural Landscapes of the European Russia	Andrei A. Stepanov Institute of Geography, Russian Academy of Sciences, Moscow, Russia
17:00-17:15	33998	The response mechanism of organic carbon loss on loess slopes to the process of soil erosion	Xuantian Li College of Soil and Water Conservation Science and Engineering, Northwest A&F University
17:15-17:30	32231	Early detection of runoff erosion as gully prevention strategy in sandy tropical soils, Kananga, Democratic Republic of Congo (DRC	Arabela Vega-Aguilar Universitat Autònoma de Barcelona
17:30-17:45	32704	Effects of Straw Mulch in Hillslope Longitudinal Furrows on Soil Physicochemical Properties and Erosion Resistance in the Black Soil Region of Northeast China	Jialong Wu Jilin Agricultural University
17:45-18:00	32174	A study on soil erodibility and the applicability of estimation methods in Robinia pseudoacacia L. mixed forests on the Loess Plateau, China	Jinlong Ma Northwest A&F University
18:00-18:15	36032	Spatial variation of soil erosion resistance impacted by ephemeral gully on long gentle sloping cropland in the Mollisol region of China	Jun Jing Beijing Normal University

Parallel Sessions

Friday, June 12 (Session 302005)			
09:00-09:15	32705	Yield decline across soil types under progressive soil erosion: Basis for soil conservation criteria in the Sudan Savanna	Tomohiro Nishigaki Japan International Research Center for Agricultural Sciences
09:15-09:30	32939	Measuring tillage and water erosion under different tillage systems in a commercial potato farm in Atlantic Canada	Fangzhou Zheng Agriculture and Agri-Food Canada (Fredericton)
09:30-09:45	33101	Drainage network connectivity controls phosphorus transport and export	Ehsan Zarrinabadi Postdoctoral Research Fellow, Department of Soil Science, University of Manitoba
09:45-10:00	31774	A systematic identification of multi-scale relationship between sediment load and environmental factors in the Ten Tributaries region of the Yellow River Basin	Jian Luo Inner Mongolia University
10:00-10:15	36451	Effects of Farmland Shelterbelt Distribution on Wind-Water Compound Erosion in the Northeast Black Soil Region of China	Hanquan Cheng Beijing Normal University
10:15-10:30	36103	Morphological Development and Hydraulic Characteristics of Plunge Pools in the Gully Beds of Dry Red Soil in Yuanmou Dry-hot Valley	Jie Feng YunnanUniversity

Parallel Sessions

Friday, June 12 (Session 302005)			
10:30-10:45	33773	Gully runoff is the primary factor triggering gravity erosion: A case study in the Top Ten Tributaries Watershed, China	Taoyan Dai Dalian University of Technology
10:45-11:00	35862	Influence of land use change and increased rainstorm on shallow landslide sediment connectivity in a small watershed of the Chinese Loess Plateau based on remote sensing	Bingzhe Tang Xi'an University of Science and Technology
11:15-11:30	34075	Tracing soil redistribution rates following deforestation in Northern Hardwood Forests using 239+240Pu isotopes	Raquel Portes University of Northern British Columbia
11:30-11:45	33966	Coupled Wind-Rain Forcing Alters Runoff Generation and Soil Loss Dynamics Across Soil Surface Conditions	Sophia Bahddou Mohammed VI Polytechnic University (UM6P)
11:45-12:00	34803	Weakened role of check dams in reducing erosion-induced soil organic carbon transport in the Middle Yellow River Basin due to vegetation restoration	Yanzhang Huang Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
12:00-12:15	35171	Effects of grass structure on wind erosion using a wind tunnel simulation	Ahmad Sohail State Key Laboratory of Soil and Water Conservation and Desertification Control, Institute of Soil and Water Conservation, Northwest A&F University
12:15-12:30	31671	Slope aspect affects soil quality and its response to soil erosion on temperate gently sloping farmlands	Ziyi Gu Beijing Normal University

Parallel Sessions

Monday, June 8	Room: Expo Center, Hall 7, 7203
Session 302007	**Soil-Water Interactions: From Saturation to Repellency, From Processes to Management** **Conveners:** Daniela Reineke, Soil Science Section, University of Kassel, Germany Stefania Cocco, Department of Agricultural, Food and Environmental Sciences, Università Politecnica delle Marche, Italy Lillian Øygarden. Chair of IUSS commission 3.2 Soil and water conservation Jiefei Mao, Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences **Co-Conveners:** Giuseppe Corti, Department of Agricultural, Food and Environmental Sciences, Università Politecnica delle Marche & Council for Agricultural Research and Economics, Centre of Agriculture and Environment, Italy Livia Vittori Antisari Department of Agricultural and Food Sciences University of Bologna, Bologna, Italy Giuseppe Lo Papa Department of Agricultural, Food and Forestry Sciences, University of Palermo, Palermo, Italy Dorota Dec. Vice chair of commission 3.2 Soil and water conservation D.A.L. Leelamanie, Faculty of Agriculture, University of Ruhuna Tobias K. D. Weber, Soil Science Section, University of Kassel, Germany

Schedule	ID	Title	Presenter
13:15-13:30	31466	Changes in soil aggregates, pore characteristics, and their relationships with soil erodibility in periodically submerged soils. A case of the Water Level Fluctuation Zone in the Three Gorges Reservoir, China	Gratien Nsabimana Key Laboratory of Mountain Surface Processes and Ecological Regulation, Institute of Mountain Hazards and Environment, Chinese Academy of Sciences; University of Chinese Academy of Sciences
13:30-13:45	32472	Leptosols of Subarctic barrier islands: land - sea interface	Nikolay S. Sobolev M. V. Lomonosov Moscow State University (Faculty of Geography)

Parallel Sessions

Monday, June 8 (Session 302007)			
13:45-14:00	34911	Occurrence and assessment of water repellency in biochar and biochar- amended soils	Jiefei Mao Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences
14:00-14:15	32134	Management-Induced Changes in SOM Composition Control Soil Wettability and Hydrological Function	Felix Ogunmokun Tennessee State University
14:15-14:30	32485	Tree parasitism as a microclimatic amplifier: implications of Viscum album infection for soil moisture and repellency dynamics	Anna Klamerus-Iwan University of Agriculture in Krakow, Faculty of Forestry
14:30-14:45	32296	Sensor-Based Modeling of Soil-Water Dynamics for Irrigation and Subsurface Hydrology	Tejinder Singh Department of Plants, Soils and Climate, Utah State University

Parallel Sessions

Monday, June 8 (Session 302007)			
16:30-16:45	32225	From Soil Morphology to Depression Hydrology: Diagnostic Criteria and Predictive Patterns in the Oka-Don Lowland	Smirnova M.A. Dokuchaev Soil Science Institute; Faculty of Geography, Lomonosov Moscow State University
16:45-17:00	32476	A challenging prediction: The heterogeneous nature of preferential flow masked by homogeneous moisture sensor responses	Sebastián Bravo-Peña Department of Soil Physics and Land Management, Wageningen University; Institute of Agricultural Engineering and Soils, Austral University of Chile
17:00-17:15	32455	Leveraging Multi-Temporal Environmental Data in a Long Short-Term Memory Model for Groundwater Nitrate Prediction	Elysia Lewis Department of Agronomy, Food, Natural Resources, Animals and Environment, University of Padova
17:15-17:30	36550	Transport Pathways of Nitrate in Stormwater Runoff Inferred from High-frequency Sampling and Stable Water Isotopes	Jian Wang Huazhong Agricultural University
17:30-17:45	32821	Salinity-Tile Drainage Linkages and their Impacts on Soil Health in the Red River Valley (United States)	Kang Liang North Dakota State University
17:45-18:00	35756	Tracing Water Use Sources in Rubber Monoculture and Rubber-Alpinia Oxyphylla Agroforestry Systems Using Hydrogen and Oxygen Isotopes	Weiqing Lin Hainan University
18:00-18:15	36436	Optimizing and Validating a Correction Formula for Xylem Water Deuterium Offsets in Field-Grown Apple Trees	Yining Liu Ludong University

Parallel Sessions

Monday, June 8 Tuesday, June 9	Room: Convention Center, Nanjing 303B
Session 303001	**Advances in Soil Fertility Management Through the Utilization of Organic Waste** **Convener:** William R Horwath, Distinguished Professor of Soil Biogeochemistry, Department of Land, Air and Water Resources, University of California, Davis, Davis, 95616 **Co-Convener:** Ji Li, Dean of Organic Recycling Research Institute at China Agricultural University, College of Resources and Environmental Science, Beijing Key Laboratory of Biodiversity and Organic Farming, China Agricultural University, Beijing 100193, China

Schedule	ID	Title	Presenter
		Monday, June 8	
13:15-13:30	36198	The potential of organic waste recycling to replace mineral fertilizers in EU Member States	Donghao Xu Earth Systems and Global Change Group, Wageningen University and Research, PO Box 47, 6700AA Wageningen, the Netherlands
13:30-13:45	36167	Safeguarding global nitrogen sustainability by managing organic waste throughout the food supply chain	Zhan Jingfang Zhejiang University
13:45-14:00	32646	Partial organic substitution enhances ecosystem services in agricultural soils	Quan Tang Yangzhou university

Monday, June 8 (Session 303001)			
14:00-14:15	33065	Agronomic and Environmental Effects of Straw Incorporation in the Rice-Wheat Rotation Region of the Yangtze River Delta: Research and Application Demonstration	Yan Ma Institute of Agricultural Resources and Environment, Jiangsu Academy of Agricultural Sciences; Liuhe Agro-Environment Field Scientific Observation and Research Station, Ministry of Agriculture and Rural Affairs
14:15-14:30	32656	Optimizing management of organic inputs to improve biomass production and nitrogen efficiency in Danish organic cropping systems	Yiwei Shang Department of Agroecology, Aarhus University; CBIO Aarhus University Centre for Circular Bioeconomy
14:30-14:45	31545	Optimizing nutrient balance in livestock waste to enhance soil organic fertilization and reduce environmental losses	Alice Boarino Department of Agricultural, Forest and Food Sciences, University of Turin
14:45-15:00	31907	Conservation Agriculture Impacts Soil Organic Carbon Sequestration, GHG reduction and Sustainable Crop Production	M. Jahiruddin Department of Soil Science, Bangladesh Agricultural University
15:00-15:15	34773	Closing the Loop in Agriculture: Biochar for Soil Restoration and Productivity	Binh Thanh Nguyen Industrial University of Ho Chi Minh City

Parallel Sessions

Monday, June 8 (Session 303001)			
16:30-16:45	34690	Beyond Porosity: Dual-Mode Nitrogen Fertilizers from Metal-Modified Biochar	Ettore Madonia Monash University / University of Palermo
16:45-17:00	34584	Nutrient enriched biochar reduces chemical fertiliser requirements for forestry seedling growth	Bianca Das Tasmanian Institute of Agriculture, Launceston
17:00-17:15	32730	Torrefied biomass (biotorr) as soil amendment: insights from multivariate and temporal analysis	Julia Queiros Vieira AGHYLE UP 2018- C101, UniLaSalle; Avril SCA
17:15-17:30	33448	Development of sisal seedlings with solid organic substrates, based on sisal residues, in Brazil	Risely Ferraz Almeida Universidade do Estado da Bahia
17:30-17:45	31938	Short-term interaction between earthworms, compost and biochar on GHG emissions and N mineralization	Thiago M. Inagaki Norwegian Institute of Bioeconomy Research

Parallel Sessions

Tuesday, June 9 (Session 303001)			
09:00-09:15	34614	Organic Waste Recycling in paddy:Enhancing Soil Health and Crop Quality - A case in Suzhou	Ji Li China Agricultrual University
09:15-09:30	34135	Comparison of organic and inorganic amendments for conserving soil moisture and increasing crop yield in wheat under water limited conditions	Amara Khan Department of Biosciences Sciences, COMSATS University Islamabad
09:30-09:45	34317	Decomposition characteristics of different organic materials and their effects on the carbon fractions of soil organic carbon in arable black soils	Wanying Lei Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, Harbin, China
09:45-10:00	33649	Biogeochemical and Isotopic Responses on Soil Health Following Dairy Manure Compost Application in an Almond Orchard	Adolfo Coyotl University of California
10:00-10:15	33510	Use of organic viticulture wastes as soil amendments to improve the function of clay soil in the Waipara region, New Zealand	Phuc Nguyen (preferred name Luna) Department of Soils and Physics Sciences, Lincoln University, Lincoln, New Zealand
10:15-10:30	34375	The soil rhizosphere metabolome's regulating mechanism on microbial communities depending on straw application depths	Xiaoyu Li Shenyang Agricultural University
10:30-10:45	32515	Soil Biogeochemical Responses to Composting and Organic Waste Application Across Agricultural Systems	Xia Zhu-Barker University of Wisconsin-Madison

Parallel Sessions

Tuesday, June 9 (Session 303001)			
11:15-11:30	31996	Innovative Nutrient Recycling through Black Soldier Fly (Hermetia illucens) Rearing: Comparison of three Organic Waste Substrates—Food Waste, Bread, and their Mixture.	Moussa Bouray Mohammed 6 Polytechnic University
11:30-11:45	33509	Fermentation Characteristics of Sawdust-Bokashi and its Effect on Soil Fertility and Pepper (Capsicum spp.) Performance.	Ahukaemere, Chioma Mildred Department of Soil Science and Technology, Federal University of Technology Owerri, Imo State, Nigeria
11:45-12:00	35132	Soil Nutrient Management in Oil Palm Plantation: The Application of Palm Oil Mill Effluent (POME) for Sustainable Agriculture	Fransisca Simanjuntak Astra Agro Lestari Tbk
12:00-12:15	35023	From Waste to Resource: Stabilizing Nitrogen in Broiler Litter Using Granulated Lignite	Clayton R Butterly The University of Melbourne
12:15-12:30	34754	In-Vessel Composting of Poultry Litter with Lignite Granules: A Strategy for Emission Mitigation	Zelong Liu School of Agriculture, Food & Ecosystem Sciences, Faculty of Science, The University of Melbourne, Parkville, Victoria, 3010, Australia
13:30-13:45	33534	Nitrogen waste in cropping and livestock systems of Darusa village, Bangladesh	Md. Mahmodol Hasan Department of Agronomy and Agricultural Extension, University of Rajshahi, Rajshahi-6205, Bangladesh
13:45-14:00	32191	Straw return facilitates the availability of soil nitrogen by altering the metabolic distribution and nitrogen cycling processes	Chao Yan Northeast Agricultural University
14:00-14:15	319B32	Integrated NP Management for Sustainable Soil Fertility and Crop Productivity	Muhammad Adnan Department of Agriculture, University of Swabi

Parallel Sessions

Tuesday, June 9 (Session 303001)			
14:15-14:30	32164	Clay-stabilised Composts to Enhance Soil Health and Carbon Storage in Sandy Soils.	Zahra Nizbat UWA School of Agriculture and Environment, The University of Western Australia
14:30-14:45	33083	The Influence of Organomineral Fertilizers and Biopreparations on Yield, Fruit Quality, and Soil Microbiological Properties under Golden Delicious Apple Orchards in Irrigated Light Chestnut Soils of Southeastern Kazakhstan	Maira Kussainova Kazakh National Agrarian Research University; Kazakh-German University (DKU); Kyoto University, Graduate School of Agriculture
14:45-15:00	32376	Organic management effect on soil characteristics: a comparison between vineyard and field crop rotation	Maria Giordano University of Padua-Department of Agronomy, Food, Natural Resources, Animals and Environment - DAFNAE
16:30-16:45	36488	Repurposing Lake Sediments as a Sustainable Phosphorus Source for Spring Barley: A Case Study in Denmark	Andressa Morato Freitas University of Florida (Agronomy Department, Institute of Food and Agricultural Sciences, Gainesville, United States) ; University of Southern Denmark
16:45-17:00	35508	Plant Available Nutrient Contributions from Steer Manure Compost in Semi-Arid Agricultural Systems	Jeanette M. Norton Dept. Plants, Soils and Climate, Utah State University, Logan UT USA
17:00-17:15	32456	Regulation of Aggregate Nutrients and Microbial Processes by Organic Materials Incorporation to Enhance Soil Quality and Crop Yield	Wenxiu Zou Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
17:15-17:30	32416	Organic Waste Amendments as Drivers of Soil Fertility and Microbial Activity in the Strawberry Rhizosphere	Mohammed Gamal College of Natural Resources and Environment, Northwest A&F University, Key Laboratory of Green and Low Carbon Agriculture on Dryland in Northwest China, Ministry of Agriculture and Rural Affairs; Department of Soil Science and Plant Nutrition, Ondokuz Mayıs University; Department of Soil and Agricultural Chemistry, Alexandria University, Faculty of Agriculture
17:30-17:45	34547	Revitalizing Sandy Soils: Organo-Mineral Inputs Enhance Drought Resilience in Wheat and Microbes	Muhammad Kamran The School of Agriculture, Food and Wine, Adelaide University, Waite Campus, Glen Osmond, SA, 5064, Australia
17:45-18:00	34202	Long-term field trials as a tool to evaluate the potential of compost to maintain grain yield and soil carbon persistence	JiLi China agricultrual university

Parallel Sessions

Tuesday, June 9	Room: Convention Center, Nanjing 207
Session 303002	**Global and Regional Trends in Cropland Nutrient Balance and Use Efficiency** **Convener:** Achim Dobermann, International Fertilizer Association (IFA), Paris, France **Co-Convener:** Francesco N. Tubiello, Statistics Division, Food and Agriculture Organization of the United Nations (FAO), Rome, Italy

Schedule	ID	Title	Presenter
09:00-09:25	33177	Cropland nutrient use efficiency: recent trends and targets for sustainable agriculture	Achim Dobermann International Fertilizer Association
09:25-09:40	32541	The role of fertilizers for feeding the world	Renske Hijbeek Wageningen University & Research
09:40-09:55	32594	Emerging soil nutrient limitations for global crop production	Walter D. Carciochi University of Nebraska-Lincoln
09:55-10:10	32525	Fertilizer Use and Nutrient Management in Indian Agriculture	Suresh Kumar Chaudhari The Fertiliser Association of India
10:10-10:25	33994	A meta-analysis and monte carlo simulation of nitrogen management strategies on balancing yield and environmental impact	Pongsathorn Sukdanont School of Agriculture, Food and Ecosystem Sciences, Faculty of Science, The University of Melbourne

Parallel Sessions

Tuesday, June 9 (Session 303002)			
10:25-10:40	36366	Trends and geographic variation in adverse impacts of nitrogen use in Europe on human health, climate, and ecosystem	Gerard Ros Wageningen University, the Netherlands
11:15-11:30	35242	Modelling the effect of soil nutrient and carbon mitigation measures in European agriculture	Chantal Hendriks Wageningen Environmental Research
11:30-11:45	31862	Precision Nitrogen Management in Rice: Appraising Smartphone-Based Fertilizer Apps and Evaluating the Efficacy of Selected Nitrogen Management Strategies	Md. Mizanur Rahman Department of Soil Science, Gazipur Agricultural University
11:45-12:00	32006	Effects of Annual Co-ordinated Phosphorus Fertilization under Wheat/Maize Rotation on Crop Phosphorus Uptake and Soil Phosphorus Content	Pingping Zhu Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences
12:00-12:15	32367	Organic Fertilizer Substitution Boosts Maize Yield in Upland Acidic Red Soils by Enhancing Soil Quality and Nutrient Availability: Insights from a 7-Year Study	Xinmei Zhao Agricultural Environment and Resources Institute, Yunnan Academy of Agricultural Sciences
12:15-12:30	33340	Calcium in peanut production	Rui Yang Institute of Urban Agriculture, Chinese Academy of Agricultural Sciences

Parallel Sessions

Thursday, June 11	Room: Convention Center, Nanjing 303B
Session 303003	**Global Phosphorus Stewardship: Innovations and Strategies for Sustainable Soil Systems and Food Security** **Convener:** Mohamed EL MAZLOUZI, Global Phosphorus Institute (GPI) **Co-Conveners:** Mamou EHUI, Global Phosphorus Institute (GPI) Terry ROBERT, Global Phosphorus Institute (GPI)

Schedule	ID	Title	Presenter
Thursday, June 11			
11:15-11:35	33695	An insight on best management practices for phosphorus fertilization in cereal-based cropping systems	Robert Michael Norton National University of Mar del Plata
11:35-11:50	33762	Managing Legacy Phosphorus for Sustainable Soil Fertility	Mohamed EL MAZLOUZI The Global Phosphorus Institute
11:50-12:05	33219	Soybean-cotton rotation and soil phosphorus dynamics under long-term management and cover crops	Paulo Sergio Pavinato 1 Department of Soil Science, “Luiz de Queiroz” College of Agriculture, University of Sao Paulo, Piracicaba, SP, Brazil.; 2 “SLC Agrícola SA”, Porto Alegre, RS, Brazil
12:05-12:20	32234	Blended Amendments to Reduce Soil Phosphorus Solubility and Mitigate Phosphorus Loss with Snowmelt Flooding	D. Kumaragamage University of Winnipeg; University of Manitoba

Parallel Sessions

Thursday, June 11 (Session 303003)			
13:30-13:45	33498	Tracking of residual soil phosphorus pools using phosphate oxygen isotopes	Deb Jaisi University of Delaware
13:45-14:00	32338	Soil Phosphorus dynamics in a Vertosol with a long cropping history	Sushila Joshi School of Agriculture and Food Sustainability (The University of Queensland)
14:00-14:15	33899	Domestication of intercropping soil microorganisms: Legacies from a Long-Term Field Experiment	Yuhong Lin Yunnan Agricultural University
14:15-14:30	34950	Phosphorus Status and Management Implications for Sustainable Crop Production in Nigeria	AHMAD Abba Hussain Ahmadu Bello University, Zaria
14:30-14:45	34857	Phosphorus acquisition and pathogen defense: synergies versus trade-offs	Wenli Ding Beijing Forestry University
14:45-15:00	32958	Scale-dependent limitation of the Mehlich-3 method for evaluating soil phosphorus across heterogeneous paddy soils in Japan	Miku Ikeda Graduate School of Life and Environmental Sciences, Kyoto Prefectural University
15:00-15:15	33413	Phosphorus sorption in acidic soils following the application of Calciprill and sodium silicate	Ng Ji Feng Department of Crop Science, Faculty of Agricultural Science and Forestry, Universiti Putra Malaysia Sarawak, Nyabau Road, 97008 Bintulu, Sarawak, Malaysia

Parallel Sessions

Thursday, June 11 (Session 303003)			
16:30-16:45	34615	Higher leaf phosphorus and nitrogen concentrations and greater allocation of phosphorus to lipids in Helicia and Heliciopsis than in other genera within the Proteaceae	Patrick Finnegan Xishuangbanna Tropical Botanical Garden, Yunnan, China; Key Laboratory for Improving Quality and Productivity of Arable Land of Yunnan Province, College of Resources and Environment, Yunnan Agricultural University, Kunming, 650201, China; School of Biological Sciences, University of Western Australia, Perth, Western Australia, Australia
16:45-17:00	32922	Differential contributions of rare and abundant phosphate-solubilizing bacteria to organic phosphorus mineralization under long-term fertilization	Tongyu Feng Institute of Soil Science, Chinese Academy of Science
17:00-17:15	34514	Sustainable Phosphorus Recovery Using Modified Olive Pomace Biochar	Moussa Bouray Mohammed 6 Polytechnic University (UM6P)
17:15-17:30	34301	Acidic Phosphorus-Rich Biochars Promote the Gorwth of Okra in Coastal Salt-Affected Soil: The Critical Role of Phosphorus-Transforming Bacteria	Qiang Liu Ocean University of China
17:30-17:45	35045	Endophytic fungi as a biotechnological approach to increase phosphorus use efficiency	Sofia Maria Muscarella Department of Agricultural, Food and Forest Sciences, University of Palermo, Palermo, Italy
17:45-18:00	31361	Simultaneous aerobic stabilisation of sewage sludge and chelator-assisted removal of toxic metals in a closed-loop process	Barbara Fojkar University of Ljubljana

Parallel Sessions

Thursday, June 11 Friday, June 12	Room: Convention Center, Nanjing 302A
Session 303004	**Novel Fertilizer Research and Industrial Development** **Convener:** Yuechao Yang, Shandong Agricultural University **Co-Conveners:** Changwen Du, Institute of Soil Science, Chinese Academy of Sciences Lili Zhang, Institute of Applied Ecology, Chinese Academy of Sciences

Schedule	ID	Title	Presenter
Thursday, June 11			
11:15-11:20	-	Opening speech	Yuechao Yang
Chair: Antonio F Patti			
11:20-11:40	320B30	Innovative Approaches to Sustainable Nutrient Management	Ping He Institute of Agricultural Resources and Regional Panning, Chinese Academy of Agricultural Sciences
11:40-12:00	33229	Chemical Gradients in the Fertosphere: Rethinking Fertiliser-Soil Interactions	Enzo Lombi Adelaide University
12:00-12:20	320B31	Controlled-release fertilizer application: Coupling with an AI- designed maize system for more grain and lower emission	Xinping Chen Affiliation of the C. Author (Department, Institute, City, Country) 1 State Key Laboratory of Nutrient Use and Management, China Agricultural University

Parallel Sessions

Thursday, June 11 (Session 303004)			
Chair: Ping He			
13:30-13:50	34926	Improving Nitrogen Use Efficiency: Novel Enhanced Efficiency Urea Fertilisers	Antonio F Patti Monash University; School of Chemistry; Clayton 3800; Victoria; Austrlia
13:50-14:10	320B34	Research Progress and application of Slow/Controlled-Release Fertilizers	Yuechao Yang Shandong Agricultural University
14:10-14:30	34440	Unravelling the dissolution pathways and transformation of polyhalite fertilisers in contrasting soils through multi-scale imaging and elemental analysis	Rodrigo Coqui da Silva Adelaide University
14:30-14:50	320B35	Development and application of rapeseed specific fertilizer based on soil nutrient supply and crop nutrient demand	Jianwei Lu
14:50-15:10	34558	A Co-granulated Urea and Sulphur Fertilizer Reduces Soil N_2O Emissions while Increasing Crop Yields	Min Yuan Department of Renewable Resources, Faculty of Agricultural, Life and Environmental Sciences, University of Alberta, Edmonton, AB T6G 2E3, Canada; China-New Zealand Belt and Road Joint Laboratory on Kiwifruit, Sichuan Provincial Academy of Natural Resources Sciences, Chengdu, Sichuan 610015, China
15:10-15:30	320B36	Development and Application of NBPT Slow-Release Suspension (Urease Inhibitor) for Tower Compound Fertilizer	Qiang Gao
15:30-15:50	32468	Dissolution of Ca-Mg-K Based Mineral Fertilisers at the Immediate Soil Surface and Impacts on Soil Erodibility and Soil Surface Crusting	Robert Simmons/Johnson Oluwaseun Odukoya Faculty of Engineering and Applied Sciences, Cranfield University

Parallel Sessions

Thursday, June 11 (Session 303004)			
Chair: Changwen Du			
16:30-16:50	320B33	Research on Creation and Application of Microbial Inoculants for Soil Conservation in Protected Tomato Production	Hongtao Zou/Bin Liu College of Land and Environment, Shenyang Agricultural University
16:50-17:10	33851	Synthesis of N-Zn Composite Synthetic Controlled Release Fertilizers	Abhinav Aditya Das Division of Soil Science, ICAR - Indian Agricultural Research Institute - Hyderabad Hub, ICAR - Central Research Institute for Dryland Agriculture (Nodal Institute)
17:10-17:30	320B32	Carbon-Based Functional Fertilizers: Effective Strategies for Decreasing Antibiotics and Antibiotic Resistance Genes During the Aerobic Treatment Process of Livestock Manure and Controlling Their Spread in Soil-Cucumber Systems	Fenwu Liu College of Resources and Environment, Shanxi Agricultural University
17:30-17:50	34903	Comparison Evaluation of Nitrogen and Sulfur Release from Sulfur- and Polymer-Coated Controlled-Release Fertilizers	Pragyan Gautam Graduate School of Agricultural Science, Tohoku University, Miyagi, Japan
17:50-18:10	33810	Microwave-assisted Synthesis of Multi-metal MOFs as Controlled-released Fertilizers	Changwen Du/Lianjie Wan Institute of Soil Science Chinese Academy of Sciences
18:10-18:30	32029	Integrated Biofertilizer and NPK Application Enhances Soil Quality and Productivity of Onion and wheat in semi-arid Environment	Garba Aliyu Abubakar Department of Soil Science and Land Resources Management, Faculty of Agriculture, Usmanu Danfodiyo University

Parallel Sessions

Friday, June 12 (Session 303004)			
Chair: Olga Yakimenko			
09:00-09:20	32851	Nitrogen Release and Greenhouse Gas Emission From soils Treated with Biodegradable Polymer-Coated Urea Fertilizer	Ye-Eun Lee Chungbuk National University
09:20-09:40	36125	Technological Breakthroughs for Enhancing Nutrient Use Efficiency in Bio-based Coated Controlled-Release Fertilizers	Shugang Zhang Shandong Agricultural University
09:40-10:00	34204	Exudate pulses throughout the entire growth period trigger the increase in maize phosphorus use efficiency by modifying soil keystone microbial taxa	Yuying Yan Shandong Agricultural University
10:00-10:20	35063	Binary Polymer-Humic Soil Amendments as a Tool to Remediate Degraded Soils	Olga Yakimenko Soil Science Faculty, Lomonosov Moscow State University, Moscow, Russia

Friday, June 12 (Session 303004)			
Chair: Lili Zhang			
10:40-11:00	36274	Potential of Mg-Fe Layered Double Hydroxide as a Slow-Release Phosphorus Fertilizer Compared with Commercial Recycled Sources	Roselle E. Madayag Division of Soil Science, Agricultural Systems Institute, College of Agriculture and Food Science, University of the Philippines Los Baños, College, Laguna, Philippines 4031; Division of Soil and Water Management, Department of Earth and Environmental Science, Belgium
11:15-11:35	32399	Nanotechnology-based strategies for enhancing phosphorus and nitrogen delivery and utilization efficiency by crop species	Jason C. White The Connecticut Agricultural Experiment Station
11:35-11:40	-	Closing speech	Yuechao Yang

Parallel Sessions

Thursday, June 11 Friday, June 12	Room: Convention Center, Nanjing 303A
Session 303005	**Plant nitrogen utilization: from cell to field**
	Convener: Weiming Shi, Institute of Soil Science, Chinese Academy of Sciences **Co-Convener:** Yufang Lu, Institute of Soil Science, Chinese Academy of Sciences Toru Fujiwara, The University of Tokyo Herbert J. Kronzucker, The University of Melbourne Eiko Kuramae, Netherlands Institute of Ecology

Schedule	ID	Title	Presenter
Thursday, June 11			
11:15-11:20	-	Opening Remarks	Weiming SHI, Eiko KURAMAE
11:20-11:40	36507	Crop improvement for nitrogen and phosphorus use efficiency in rice	Nandula Raghuram Guru Gobind Singh Indraprastha University, New Delhi
11:40-11:55	32313	Responses of Rice Production, NH3 and N2O Losses to Biochar Application at Different Growth Season of Rice-Wheat Rotation	Haijun Sun Nanjing Forestry University
11:55-12:10	34106	Short term impacts of biochar on vine tissues total carbon and nitrogen and their stable isotope compositions as well as berry yield in two vineyards in Southeast Queensland of subtropical Australia	Kate Kingston School of Environment and Science, Griffith University (Nathan campus, Brisbane, Australia); Australian Research Centre for Human Evolution, Griffith University (Nathan campus, Brisbane, Australia)

Parallel Sessions

Thursday, June 11 (Session 303005)			
12:10-12:25	31481	Fertilizer- Driven Nitrate Availability and Waterlogging Resilience in Canola: Benefits and Micronutrient Trade- offs	Haochen Zhao Tasmanian Institute of Agriculture, University of Tasmania
13:30-13:50	32749	Harnessing Biological Nitrification Inhibitors from Rice for Sustainable Nitrogen Management	Lu Yufang Institute of Soil Science, Chinese Academy of Sciences; University of Chinese Academy of Sciences
13:50-14:10	34504	Temporal dynamics of biological nitrification inhibition efficiency in wheat under varying degrees of plant growth realism	Cecile Gubry-Rangin Aberdeen University
14:10-14:25	35663	Discovery of iron-reducing diazotrophs in rice paddy soil and enhancement of nitrogen fixation by iron application	Yoko Masuda Graduate School of Agricultural and Life Sciences, The University of Tokyo
14:25-14:40	36259	Effects of plant hormone on microbial community in soil under conservation tillage	Jingjing Ma Northeast Institute of Geography and Agroecology, CAS
14:40-14:55	32618	Phenolic BNIs suppress nitrification by steering the nitrifier community toward enhanced nitrogen retention in contrasting soils	Zedong Chen Institute of Soil Science, Chinese Academy of Sciences; University of Chinese Academy of Sciences
14:55-15:15	320B64	Soil Health-Driven: Sustainable Cultivation and Global Industrialization of Cistanche tubulosa	Gangqiang Dong Amway (China) Botanical R&D Center

Parallel Sessions

Friday, June 12 (Session 303005)			
09:00-09:20	32971	Rice promotes abundance of nitrogen fixing bacteria in paddy field soils	Toru Fujiwara The University of Tokyo
09:20-09:35	32454	MGP1-mediated Mitochondrial ROS Homeostasis Couples Carbon Metabolic Switching with Nitrate Adaptation	Baohai Li Zhejiang University
09:35-09:50	32220	Rapid induction of NH_4^+ efflux in rice roots under high-ammonium stress and its association with varietal differences in ammonium tolerance and ammonium-utilization efficiency	Dongwei Di Institute of Soil Science, Chinese Academy of Sciences
09:50-10:05	32286	Regulation of the GS-GOGAT-GDH Pathway under Ammonium Nutrition: Mechanistic Insights into Nitrogen Assimilation and Utilisation Efficiency in Oil Palm Seedlings	Muhammad Syafiq bin Mohd Zaludin Plantation Research& Advisory, SD Guthrie Research
10:05-10:20	319B33	Soil nitrogen deficiency and heat stress drive tissue-specific metabolic reprogramming governing nitrogen utilization in soybean	Hamza Tariq Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences
10:20-10:35	35879	Nitrogen-induced modulation of whole-plant transpiration under atmospheric drought	Qiushi Ning Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences

Parallel Sessions

Friday, June 12 (Session 303005)			
10:35-10:50	33758	Functional Complementarity in Cover Crop Mixtures Shapes Subsoil Carbon-Nitrogen Partitioning via Maize Reuse of Root Channel Legacies	Yijie Shi Institute of Plant Nutrition and Soil Science, Christian-Albrechts-University Kiel
10:50-11:05	35539	Variation Patterns and Influencing Factors of Fine Root Uptake of Different Nitrogen Forms with Stand Age in Cunninghamia lanceolata	Xiaodong Yao, Zhengyi Huang, and Guangshui Chen School of Geographical Science, Fujian Normal University, Fuzhou, China; Fujian Sanming Forest Ecosystem National Observation and Research Station, Sanming, China
11:20-11:40	36502	Towards Smart Fertilization: Building a Dynamic Rhizosphere NH_4^+/NO_3^- Model under the GiP Framework for Drastically Improved NUE	Yue Jeff Xu Zhongguancun Xuyue Non-invasive Micro-test Technology Industrial Alliance; Xuyue (Beijing) Sci. &Tech. Co.,Ltd.; YoungerUSA, LLC
11:40-11:55	31122	Enhancing Nitrogen Utilization and Profitable Corn Production While Minimizing Environmental Impact	Fabian G. Fernandez University of Minnesota
11:55-12:10	36049	Developing an AI-based Precision Nitrogen Management Strategy for Corn	Yuxin Miao University of Minnesota
12:10-12:25	33435	Developing Machine Learning Protocol for Optimizing Nitrogen Nutrition in Rice	P. Kannan Professor (Soil Science) Centre for Agricultural Nanotechnology, Tamil Nadu Agricultural University, Coimbatore, India

Parallel Sessions

Friday, June 12	Room: Convention Center, Nanjing 209
Session 303006	**Rhizobiont for High Nutrient Use Efficiency**
	Convener: Fusuo Zhang, China Agricultural University **Co-Conveners:** Jianbo Shen, China Agricultural University Lin Zhang, China Agricultural University Oene Oenema, Wageningen University & Research

Schedule	ID	Title	Presenter
09:00-09:15	34550	Rhizobiome Partners to Optimize Nutrient Transfers from Soil to Plants	Joann K. Whalen McGill University
09:15-09:30	32158	Maintaining sulfur supply to rhizobia delays nodule senescence in soybean	Zhichang Chen Institute of Soil Science, Chinese Academy of Sciences
09:30-09:45	33008	Genotype-Specific Rhizosphere Strategies for Phosphorus Acquisition in Tea Plants under Organic Substitution	Lizhi LONG Tea Research Institute, Chinese Academy of Agriculture Sciences
09:45-10:00	31978	The power of the less productive: understanding the links between diversity and belowground traits of wild, landrace and modern crops	Llorenç Cerdà IRTA (Sustainability in Biosystems)
10:00-10:10	33204	Diversified cropping systems with complementary root growth strategies improve crop adaptation to and remediation of hostile soils	Wei-Ping Zhang China Agricultural University
10:10-10:20	35008	Bioprospecting soil bacteria to increase sulfate release from elemental sulfur in tropical soil	Fernanda Miotti Department of Soil Science, Luiz de Queiroz College of Agriculture, University of São Paulo, São Paulo, Brazil

Parallel Sessions

Friday, June 12 (Session 303006)			
10:20-10:30	34927	Mycorrhizal solubilization of phosphate rock increases arsenic accumulation in Pteris vittata: Trade-off root strategies and dual P-transporter pathways	Songge Deng Zhejiang University
10:30-10:40	36182	Soil C:P stoichiometry regulating microbial-mediated phosphorus turnover fluxes in calcareous soil	Yi Peng Xinjiang Agricultural University
10:40-10:50	35813	Nitrogen use efficiency of intercropping and its drivers: a global meta-analysis	Yalin Liu Ningbo University
10:50-11:00	34652	Screening groundnut genotypes for their nutrient efficiency in calcareous soils	Chitdeshwari Professor (SS&AC), Department of Soil Science and Agricultural Chemistry, DNRM Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu, India
11:15-11:30	33519	Cross-kingdom nutrient exchanges in the plant-arbuscular mycorrhizal fungi-bacteria continuum	Lin Zhang China Agricultural University
11:30-11:45	34705	Drivers of Potassium Efficiency in Sweet Potato: Genotypic Variation, Partitioning Dynamics, and AMF-Mediated Rhizosphere Optimization	Jidong Wang Jiangsu Academy of Agricultural Sciences
11:45-12:00	35544	Nitrogen form-induced spatiotemporal coupling of root growth and phosphorus uptake	Lidong Qi China Agriculture University

Parallel Sessions

Thursday, June 11 Friday, June 12	Room: Convention Center, Nanjing 302B
Session 303007	**Sustainable Phosphorus Use in Agroecosystems: New Approaches to Optimizing Nutrient Management and Ecosystem Functionality** **Convener:** Klaus Jarosch, Agroscope, Agroecolgoy and Environment, Zurich, Switzerland **Co-Conveners:** Hao Chen, Sun Yat-sen University, School of Agriculture and Biotechnology, Shenzhen, China Owen Fenton, Teagasc, Environmental research Centre, Wexford, Ireland Wenxuan Shi, Teagasc, Environmental research Centre, Wexford, Ireland

Schedule	ID	Title	Presenter
Thursday, June 11			
11:15-11:30	34012	Phosphorus in agricultural soils: status and dynamics	Enqing Hou South China Botanical Garden, Chinese Academy of Sciences
11:30-11:45	34045	Optimizing global cropland management to advance phosphorus sustainability	Yishen Sun Institute of Soil Science, Chinese Academy of Sciences
11:45-12:00	32348	Rainfall thresholds and scale-dependent hydrological dynamics of phosphorus speciation in nested purple soil catchments	Xinyu Liu Institute of Mountain Hazards and Environment, Chinese Academy of Sciences; Key Laboratory of Mountain Surface Processes and Ecological Regulation, Chinese Academy of Sciences
13:30-13:45	34158	Impact of Combined Manure and Mineral Fertilizer on Phosphorus Dynamics in Paddy and Drained Paddy Systems: Transitioning to Soybean Cultivation	Lakmini T. Godagedara Division of Applied Life Science (BK21 Four), Gyeongsang National University, Jinju 52828, Korea

Parallel Sessions

Thursday, June 11 (Session 303007)			
13:45-14:00	35790	Exploring characterization methods and thresholds of carbon-phosphorus ratio for promoting crop growth and microbial phosphorus activation	Qiaoling Pu Xinjiang Agricultural University
14:00-14:15	33215	Enhancing the functionality of agricultural soils in Mediterranean regions with biobased P fertilizers: nutrient cycling and soil microbial communities	Antonio Rafael Sánchez-Rodríguez University of Córdoba (Spain)
14:15-14:30	36353	Recycling lake sediment for use in agriculture: insights from laboratory and field experiments	Antonio M. M. Silva University of Southern Denmark
14:30-14:45	36290	Phosphorus cycling in paddy soils	Yu Wang Institute of Soil Science, Chinese Academy of Sciences
16:30-16:45	33776	Effects of organic fertilizer substitution on soil inorganic phosphorus (P) fractions and dynamics at the aggregate level: evidence from P fractionation and 33P isotopic exchange kinetics	Hao Chen Sun Yat-Sen University
16:45-17:00	34807	Molecular-level understanding transformation mechanisms of P in the calcareous agricultural soils	Jianjun Yang Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences
17:00-17:15	34725	Land use controls soil phosphorus pools but not sorption mechanisms: insights from piecewise structural equation modelling	Gilles Colinet Water Soil Plant exchanges Department, TERRA, University of Liege, Belgium
17:15-17:30	34769	Long- term biochar application influences phosphorus and associated iron and sulfur transformations in the rhizosphere	Jiahui Yuan Institute of Soil Science
17:30-17:45	34905	Sulphur Impregnated Biochar Synchronizes Phosphorus Release from Occluded Pools while Enhancing Carbon Stabilization	Muhammad Ahmed Key Laboratory of Plant Nutrition and the Agri-environment in Northwest China, Ministry of Agriculture and Rural Affairs, Northwest A&F University, Yangling 712100, China; Key Laboratory of Low-carbon Green Agriculture in Northwestern China, Ministry of Agriculture and Rural Affairs, P. R. China, Yangling 712100, China; College of Natural Resources and Environment, Northwest A & F University, Yangling 712100, Yangling, China
17:45-18:00	35928	Long-term Biochar Application Enhances Carbon-Phosphorus Co-stabilization and Mitigates Methane Emissions in Flooded Rice Systems	Hao Chen Institute of Soil Science, Chinese Academy of Sciences

Parallel Sessions

Friday, June 12 (Session 303007)			
09:00-09:15	35662	Seabirds Bearing Light	Roland Bol Institute of Bio- and Geosciences, Agrosphere Institute (IBG-3), Forschungszentrum Jülich, Germany
09:15-09:30	34868	An innovative approach for measuring soil microbial biomass P	Vito Armando Laudicina Department of Agricultural, Food and Forest Sciences, University of Palermo, Palermo, Italy
09:30-09:45	32675	The Art of Breeding Microbial Communities: Unlocking Soil Phosphorus through Artificial Selection	Lena Faller Netherlands Institute of Ecology (NIOO-KNAW); Utrecht University
09:45-10:00	31931	Phosphate rock and microorganisms as a sustainable alternative to soluble P fertilizers in tropical soil	Fernanda Miotti Luiz de Queiroz College of Agriculture, University of São Paulo
10:00-10:15	31857	Enhancing soil phosphorus activation and microbial phosphorus cycling via increasing soil moisture stability in maize production	Mengze Xu Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences
10:15-10:30	35886	Long-term green manuring increases phosphorus availability in soil by modifying microbial functional genes and enzyme activities	Xiaodong Chen Zhejiang Academy of Agricultural Sciences

Parallel Sessions

Tuesday, June 9	Room: Convention Center, Nanjing 208
Session 304003	**Can Enhanced Rock Weathering Capture and Store Atmospheric CO2? Its Expectations and Limitations** **Convener:** Taku Nishimura, Professor, Laboratory of Soil Physics and Soil Hydrology, The University of Tokyo **Co-Convener:** Songlin Wu, Professor, Research Center for Eco-Environmental Sciences,Chinese Academy of Sciences

Schedule	ID	Title	Presenter
13:30-13:45	36629	Constrains in Measuring Carbon Sequestration by Enhanced Rock Weathering and the Way Forward	Balwant Singh The University of Sydney
13:45-14:00	32103	Reframing Carbon Accounting in Enhanced Rock Weathering: Counterfactuals, stoichiometry, and MRV implications	Rafael M. Santos Department of Civil, Environmental, and Water Resources Engineering, University of Guelph
14:00-14:15	33796	The Impact of Enhanced Rock Weathering on Soil Carbon Dynamics: A Global Meta-Analysis of Environmental and Soil Factors	Yunsi Duan Northeastern University
14:15-14:30	33040	Reconnecting geology and soil science for a broader One Health framework: Insights from Enhanced Rock Weathering	Atsushi Nakao Kyoto Prefectural University
14:30-14:45	31991	Direct evidence for basaltic mineral weathering in cropland revealed by X-ray powder diffraction analysis	Kohei Kurokawa Graduate School of Life and Environmental Sciences, Kyoto Prefectural University, Kyoto, Japan; Environmental and Biochemical Sciences, The James Hutton Institute

Parallel Sessions

Tuesday, June 9 (Session 304003)			
14:45-15:00	32693	Can Silicate Rock Powder Replace Agricultural Lime and Sequester Carbon in Acid Soils? - Field and Lab Studies	Ray R Weil Department of Environmental Science and Technology, University of Maryland, College Park
16:30-16:45	33238	Exploring Basalt Weathering for Mitigating Greenhouse Gas Emissions in Rice Paddy System	Chia-Yu Yang Life and Environmental Sciences, Kyoto Prefectural University
16:45-17:00	33263	Impact of soybean cultivation on basalt weathering in agricultural system	Hiroshi Uchibayashi Plant Imaging Research Unit, Fukushima Institute for Research, Education and Innovation, Takasaki, Japan
17:00-17:15	33794	Wollastonite reshapes soil organic carbon fraction dynamics and enhances carbon sequestration potential	Zhifang Zhao Northeastern University
17:15-17:30	35858	Mechanisms of Carbon Sequestration through Bacillus-Enhanced Basalt Weathering on the Soil Priming Effect	Gaoyang Qiu Zhejiang Academy of Agricultural Sciences
17:30-17:45	32255	Subsurface and surface transport of crushed basalt	Taku Nishimura The University of Tokyo

Parallel Sessions

Thursday, June 11	Room: Expo Center, Hall 8, 8203
Session 304004	**Engineering Technology System for Efficient Quality Improvement of Obstructed Soil** **Convener:** Yuanfang Huang, China Agricultural University **Co-Conveners:** Qiuju Wang, Heilongjiang Academy of Black Soil Conservation and Utilization, China Taku Nishimura, University of Tokyo, Japan Xiaogang Li, Nanjing Forestry University, China Yunjia Liu, China Agricultural University Yun Liu, Institute of Soil Science, Chinese Academy of Sciences

Schedule	ID	Title	Presenter
16:30-16:45	32056	Soil Re-engineering - A New Approach to Improve Crop Productivity on Constrained Sandy Soils in Water-Limited Environments in Western Australia	Gausul Azam Principal Research Scientist
16:45-17:00	34087	Engineering Technology and Practice of Microbial-Synergized Organic Material Amelioration in Albic Soil	Jie Liu Heilongjiang Agricultural Academy of Sciences Heilongjiang University
17:00-17:15	34592	Ecological Prevention and Control of Early-Stage Gully Erosion in Black Soils: Concepts, Mechanisms, and Integrated Technologies	Enheng Wang Northeast Forestry University
17:15-17:30	34729	Bacterial richness enhances the thermostability of soil organic matter: long-term perspective	Meng Wu Institute of Soil Science, Chinese Academy of Sciences
17:30-17:45	34658	Tillage and straw return alleviate soil compaction in Northeast China: From pore structure to root development and crop productivity	Jing An Shenyang Agricultural University
17:45-18:00	34123	Subsoil Mixed Profile Reconstruction Technology	Qingying Meng Heilongjiang Academy of Agricultural Sciences

Parallel Sessions

Tuesday, June 9	Room: Expo Center, Hall 8, 8203
Session 304007	**Frontier Technologies for Soil Analysis: From Single-Cell to Nanosensors** **Conveners:** Jian Xu, Qingdao Institute of Bioenergy and Bioprocess Technology Haoye TANG, Institute of Soil Science, Chinese Academy of Sciences Yasin Orooji, Distinguished Professor, College of Geography and Environmental Sciences, Zhejiang Normal University **Co-Conveners:** Yuting Liang, Institute of Soil Science, Chinese Academy of Sciences Wei Huang, University of Oxford Li Cui, Institute of Urban Environment, Chinese Academy of Sciences Hailin ZHANG, Department of Plant and Soil Sciences, Oklahoma State University Youzhi Feng, Nanjing Forestry University Hassan Karimi-Maleh, Professor in Biosensing Technologies, affiliated with multiple collaborative institutions

Schedule	ID	Title	Presenter
13:30-13:45	32737	The Soil iMAPS Initiative: a global network to map the single-cell in-situ metabolic atlas for soil	Xu Jian Qingdao Institute of Bioenergy and Bioprocess Technology, Chinese Academy of Sciences
13:45-14:00	32712	Single-cell exploration of the microbiota driving soil phosphorus mobilization: from single-cell Raman to high-throughput fluorescence profiling	Li Cui Institute of Urban Environment (IUE), Chinese Academy of Sciences (CAS)
14:00-14:15	32944	Raman-based flow cytometry for single-cell microbial phenotyping	Kang Soo Lee Department of Mechanical Engineering, UNIST

Parallel Sessions

Tuesday, June 9 (Session 304007)			
14:15-14:30	33717	Designing drought-resilient plant microbiomes using single-cell Raman spectroscopy	Qinglin Chen Institute of Urban Environment, Chinese Academy of Sciences
14:30-14:45	34324	Quinolone-mediated metabolic cross-feeding develops aluminium tolerance in soil microbial consortia	Zhiyuan Ma Institute of Soil Science, Chinese Academy of Sciences
1 min	-	Part 2 Introduction & Housekeeping	Feng Youzhi
16:30-16:45	36424	Nitrogen- fixing seed endophytes synergize with soil functional microbiota to enhance rice nitrogen supply	Kai Sun Nanjing Normal University
16:45-17:00	31570	Monitoring Ecological Rehabilitation of Degraded Soils by Human Activities Using Thermal Indicators of Soil Organic Matter	Maria-Fernanda Romero-Sarmiento IFP Energies Nouvelles
17:00-17:15	32360	Developing a diffusive gradients in thin films (DGT) technique for large-scale and high-resolution mapping of labile potassium in soils	Jianyin Huang The University of Queensland, School of Agriculture and Food Sustainability

Parallel Sessions

Tuesday, June 9 (Session 304007)			
17:15-17:30	32891	Loosely bound mobile metal ions distribution across arid landscapes	Silaev Makar Aramco Innovations LLC
17:30-17:45	33157	Evaluation of ion selective electrodes for monitoring plant nutrients	Ayodele Oluseyi Fabiyi University of Lincoln, Lincoln, United Kingdom
17:45-18:00	33730	Micro-CT scanning as a tool for analysing comparative root architecture of pasture species	Haoran Fan School of Agriculture, Food and Ecosystem Sciences (Faculty of Science, The University of Melbourne)
18:00-18:15	36484	In situ Non-destructive Imaging of Roots from GFP-Expressing Plants Using a Novel Fluorescence Minirhizotron with Automated Intensity Measurement and CNN-based TRL Estimation	Xinze Xu French Associates Institute for Agriculture and Biotechnology of Drylands, The Jacob Blaustein Institutes for Desert Research, Ben-Gurion University of the Negev, Sede Boqer, Israel
18:15-18:30	34528	From lab to field: An open-source, low-cost toolkit for soil CO_2 respiration research	Thuc T. Nguyen The Jacob Blaustein Institutes for Desert Research, Ben-Gurion University of the Negev, 84990, Israel

Parallel Sessions

Thursday, June 11 Friday, June 12	Room: Convention Center, Nanjing 207
Session 305001	**Deciphering the Soil-Pollutant Nexus: Biogeochemical Frontiers for Soil Health and Sustainable Ecosystems** **Convener:** Yan He, Zhejiang University **Co-Conveners:** Yurong Liu, Huazhong Agricultural University Guodong Fang, Institute of Soil Science, Chinese Academy of Sciences Cheng-Hua Liu, Feng Chia University Ashley Edwin Franks, La Trobe University Guofang Xu, Zhejiang University

Schedule	ID	Title	Presenter
Thursday, June 11			
11:15-11:30	33058	Rethinking Restoration: Functional Trajectories of Soil-Vegetation Systems in Restored vs. Spontaneously Colonized Metalliferous Mine Tailings under a Changing Climate	M. Nazaret González-Alcaraz Universidad Politécnica de Cartagena
11:30-11:45	34924	Speciation Distribution, Transformation, and Interfacial Interaction Mechanisms of Heavy Metals and Phosphate in Contaminated Farmland Soils	Xiaoming Wang Huazhong Agricultural University
11:45-12:00	31431	Contrasting soil functional responses to climate change in restored and spontaneously colonized mine tailings	Ceacero-Moreno, Matías Department of Agricultural Engineering of the E.T.S.I.A., Technical University of Cartagena member of European University of Technology EUT+, 30203 Cartagena, Spain.
12:00-12:15	34031	The genesis of nano-colloid-bound Cd and As: from climatic and pedogenic controls to global projections	Kengbo Ding Sun Yat-sen University

Parallel Sessions

Thursday, June 11 (Session 305001)			
13:30-13:50	32204	Microbial Methylation of Mercury Mediated by Soil Organic Matter: Progress and Prospects	Xujun Liang Northwest A&F University
13:50-14:10	34355	Response and functional restructuring of micro-food webs in heavy metal-contaminated soil	Xiuli Hao Huazhong Agricultural University
14:10-14:25	34404	Effects of methane oxidation on microbial mercury methylation in typical paddy soils	Kanghua Chen Northwest A&F University
14:25-14:40	33830	Long-Term Ecological consequences of the Proton Launch Vehicle First Stage Falling: Preliminary Results of the Comprehensive Case Study in Central Kazakhstan	Ivan Semenkov Lomonosov Moscow State University
14:40-14:55	33832	Analysis of Traits and Prediction of Angiosperm Species of Plant-Hyperaccumulators of 17 Heavy Metals and Metalloids: Initial Results	Galya V. Klink Isaev Centre for Problems of Forest Ecology and Productivity of the Russian Academy of Sciences ; Higher School of Education

Parallel Sessions

Thursday, June 11 (Session 305001)			
16:30-16:50	33764	The Passivation Remediation of Weakly Alkaline Cadmium-Contaminated Farmland Soil	Yanhong Lou Shandong Agricultural University
16:50-17:10	31988	From Collieries to Continents: Deciphering the Soil-Pollutant Nexus in Coal Mine Landscapes	Alexey V. Alekseenko United Nations University
17:10-17:25	34645	Microbial Refugee under Shrubs Limits Soil Copper Contamination Effects	Pedro Mondaca Institute of Ecology & Biodiversity, Chile; Facultad de Medicina Veterinaria y Agronomía, Universidad de Las Américas, Santiago, Chile
17:25-17:40	31683	Intensified Production of Hydroxyl Radical from Iron-Manganese Synergistic Coupling during Soil Oxygenation: Driven by Iron-Induced Manganese Redox Cycling and Peroxo Complex Formation	Kexin Chen Shanghai Jiao Tong University
17:40-17:55	35408	One Health Implications of Treated and Untreated Wastewater Irrigation: Evidence from farmer-managed systems in Northern India	Sumita Chandel Department of Soil Science, Punjab Agricultural University, Ludhiana, Punjab
17:55-18:10	32722	Elucidating Arsenic-Soil Mineral Interactions at the Microscopic Interface: Insights into Arsenic Geochemistry based on mechanistic speciation	Yuhong Huang Nanjing university
18:10-18:25	32714	Micro-scale redox heterogeneity governs chromium mobility and reoxidation in flooded industrial soils with contrasting properties	Danxing Yang Hunan Agricultural University

Parallel Sessions

Friday, June 12 (Session 305001)			
09:00-09:20	34878	Specific metabolites modulate core microbes and microbial interactions to drive fomesafen dissipation in the soybean rhizosphere	Wenjie Ren Institute of Soil Science, Chinese Academy of Sciences
09:20-09:40	34353	Inhibition mechanism of hexachlorocyclohexane isomers on different methanogen metabolism	Yaqing Liu Guangxi University
09:40-09:55	35550	Coupling Pollution Screening with Ecotoxicological Response: Critical Thresholds, Aromatic Stress, and Dominant Degraders in the Loess Plateau	Min Hu Xi'an University of Architecture and Technology
09:55-10:05	32527	Overlooked Ecological Risks of Chlorinated Pollutants in Anaerobic Soils: Coupling Microbial Dehalogenation with Methanogenesis	Shuyao Li, Yan He State Key Laboratory of Soil Pollution Control and Safety, College of Environmental and Resource Sciences, Zhejiang University; Zhejiang Provincial Key Laboratory of Agricultural Resources and Environment, Zhejiang University
10:05-10:15	32433	From Pollution to Solution: Microbial Insights and Novel Bacteria for Biodegradation of Organochlorine in Coastal Wetland Soil	Meng Liu Zhejiang University
10:15-10:25	32504	Mapping soil deposition of antibiotics at municipality-scale in Brazil	Ricardo Canal Filho Laboratory of Precision Agriculture - Luiz de Queiroz College of Agriculture, University of São Paulo

Parallel Sessions

Friday, June 12 (Session 305001)			
10:25-10:35	32915	Neglected contributions of residual herbicides at various levels on soybean root rot: links with time-series changes in non-target soil microbial communities and functions	Yuxuan Chen Zhejiang University
10:35-10:45	32791	Multi-Omics Metabolic Models of Coupled Dechlorination and Methanogenesis Enhance Pollution and Carbon Reduction in Anaerobic Soils	Yifan Song Zhejinag University
10:45-10:55	32624	Enhanced Fomesafen Microbial Degradation in Anaerobic Soils by Glucose: Degradation Characteristics Under Different Redox Conditions	Shixiang Dai State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences; University of Chinese Academy of Sciences
11:15-11:35	33888	Environmental Prevalence and Application of Organohalide-respiring Bacteria in Remediation	Guofang Xu Zhejiang University
11:35-11:50	33449	Photochemical characterization of paddy water: Formation of reactive intermediates for micropollutant degradation	Yu Zeng Institute of Soil Science, Chinese Academy of Sciences
11:50-12:05	32647	Elevated CO2 enhanced PFOA removal and reduced N2O emissions in soil: evidence from a FACE experiment	Jiaxin Li Zhejiang University
12:05-12:20	34178	Divergent responses of alfalfa-soil nitrogen cycling to PE and PLA microplastics: A metabolic and microbial perspective	Zhanling Wang Nanjing University

Parallel Sessions

Tuesday, June 9	Room: Expo Center, Hall 8, 8201
Session 305002	**Enhanced In Situ Bioremediation for Contaminated Sites** **Conveners:** He-Ping Zhao, State Key Laboratory of Soil Pollution Control and Safety, Zhejiang University Chunling Luo, Guangzhou Institute of Geochemistry, Chinese Academy of Sciences **Co-Convener:** Timothy M. Vogel, Université de Lyon

Schedule	ID	Title	Presenter
09:00-09:15	32628	Nitrogen Transfer and Cross-feeding Between Azotobacter chroococcum and Paracoccus aminovorans Promotes Pyrene Degradation	Ying Teng Institute of Soil Science Chinese Academy of Sciences
09:15-09:30	36019	Effects of Amendments on the Anaerobic Bioremediation of Organohalides in Contaminated Soil and Groundwater	Sydney Kennedy-Flynn University of Alberta
09:30-09:45	36057	In Situ Enhanced Reductive Dechlorination for Chlorinated Aliphatic Hydrocarbon Contaminated Sites	Liu Wuxing Institute of Soil Science, Chinese Academy of Sciences
09:45-10:00	35466	Sequential Causal Machine Learning Assisted Design of Biochar for Laccase Immobilization	Yin Lu Beijing University of Civil Engineering and Architecture
10:00-10:15	36064	Dual inhibition mechanisms drive antagonistic effects during phenanthrene and pyrene co-degradation by Pseudoxanthomonas: Pathway competition and substrate preference	Chao Cai Institute of Urban Environment, Chinese Academy of Sciences
10:15-10:30	34534	Remediation potential of oil-contaminated soils, under biochar and mineral salts influence	N.Manucharova Lomonosov State University; Lomonosov Moscow State University

Parallel Sessions

Tuesday, June 9 (Session 305002)			
10:30-10:45	33829	Thermally Enhanced Biodegradation Mechanisms of Chloroethenes and BTEX Co-Contaminants in Groundwater: Insights into Microbial Functional Gene Enrichment and Biogeochemistry	Zhuanxia Zhang Nanjing Institute of Environmental Sciences, Ministry of Ecology and Environment of China
10:45-11:00	320B60	Opportunities, Challenges, and Practices of Soil Remediation in the AI Era	Li Yanxi Center Environmental Protection Technology Co., Ltd.
11:00-11:15	33890	Estimating Petroleum Hydrocarbon Plume Volume and Mass from Sparse and Zero-Inflated Soil Data Using INLA-SPDE	Lulu Peng The University of Saskatchewan
13:30-13:45	33290	Sulfate-Amended In Situ Bioremediation of Chloroethene-Heavy Metal Co-Contamination: Mechanisms, Microbial Responses, and Pilot-Scale Validation	Zheng-Tao Li Zhejiang Gongshang University; Zhejiang University
13:45-14:00	33117	Root foraging for metals as a key trait of hyperaccumulators may be obscured in soil systems: Evidence from experiments and a meta-analysis	Lanfang Hu Sun Yat-sen University
14:00-14:15	32903	Transforming Spent Coffee Grounds (SCG) into an Environmental Asset- Its Characterization and Optimization for Soil Amendment and Remediation Applications	Mhlophe, Prudence University of Glasgow

Parallel Sessions

Tuesday, June 9 (Session 305002)			
14:15-14:30	32833	Phytoremediation of heavy metals in soils of the Christchurch Red Zone	Mingyuan Liu University of Canterbury
14:30-14:45	32795	Variations in root functional traits facilitate the adaptation of pioneer plants to rare earth element mine tailings	Shi-Chen Zhu Guangdong Academy of Forestry
14:45-15:00	32072	Earthworms and Crop Varieties Mediate the Effects of Nano-Hydroxyapatite on Soil Biochemical Characteristics and Cadmium Uptake by Plant	Cevin Tibihenda South China Agricultural University
16:30-16:45	33917	Potential bacterial resource for bioremediation of organochlorine pesticides and flame retardants recognized from forest soil across China	Jiayu Liu South China University of Technology
16:45-17:00	32557	Root acid phosphatases and microbial biomass phosphorus induced Cd tolerance and P acquisition in wheat inoculated with P solubilizing bacteria.	Ammar Ibnyasser College of Agriculture and Environmental Sciences, Mohammed 6 Polytechnic University
17:00-17:15	32977	Metabolic complementary Between Cupriavidus and Pseudomonas Facilitates 2,4,6-Trichlorophenol Degradation	Lei Zhang Shanghai Jiao Tong University
17:15-17:30	320B38	Methane-dependent arsenate reduction in paddy soil	Xianjin Tang Zhejiang University

Parallel Sessions

Thursday, June 11	Room: Expo Center, Hall 8, 8203
Session 305003	**Integrated Remediation and Utilization Strategies for Degraded Soils in Mined Lands** **Convener:** Yuanfang Huang, China Agricultural University **Co-Convener:** Qiuju Wang, Heilongjiang Academy of Black Soil Conservation and Utilization, China Taku Nishimura, University of Tokyo, Japan Hongtao Zou, Shenyang Agricultural University, China Enheng Wang, Northeast Agricultural University, China

Schedule	ID	Title	Presenter
13:30-13:45	35636	Root acquisition-defense strategies of pioneer plants in heavy metal contaminated mining areas	De-Xiang Xu Sun Yat-sen University
13:45-14:00	34932	Vetiver Grass Induced Changes in Soil Acidity, Electrical Conductivity and Soil Organic Carbon in Mine-Affected Soils over two Rehabilitation Periods	Ntimbane Patience Department of Plant Production, Soil Science and Agricultural Engineering; University of Limpopo; Private Bag X 1106, Sovenga, 0727; South Africa
14:00-14:15	32929	The dependency of spontaneous vegetation growth on soil and tailing material properties of mine residue deposits at different climates in Namibia	Stefan Norra Potsdam University
14:15-14:30	32182	Comparison for physico-chemical properties of restored soil with two types of vegetation at abandoned coal mine in Gangwon province, South Korea	Kitae Jo Department of Agriculture, Forestry and Bioresources, Seoul National University
14:30-14:45	31754	Ecological restoration of semi-arid, PTE-enriched toxic mine tailings through organic amendments and microclimatic regulation via fascines	Antonio Aguilar-Garrido Department of Agricultural Engineering of the ETSIA, Technical University of Cartagena member of European University of Technology EUT+
14:45-15:00	32086	Ultrafast and high-capacity gold retrieval via cascade reduction	Yilin Lu Nanjing University

Parallel Sessions

Monday, June 8 Tuesday, June 9	Room: Convention Center, Nanjing 303A
Session 305005	**Micro-and Nano-Plastics in the Soil: From Pollution to Solution**
	Convener: Rong Ji, Nanjing University, China **Co-Conveners:** Thilo Hofmann, University of Vienna, Austria Yongming Luo, Institute of Soil Science, Chinese Academy of Sciences Matthias C. Rillig, Free University of Berlin, Germany Chen Tu, Institute of Soil Science, Chinese Academy of Sciences Yuanyuan Tang, Southern University of Science and Technology Fei Dang, Institute of Soil Science, Chinese Academy of Sciences Cheng Peng, East China University of Science and Technology

Schedule	ID	Title	Presenter
Monday, June 8			
13:15-13:30	319B64	High-Throughput Detection Method for Microplastics Based on Fluorescence Spectroscopy and Machine Learning	Cheng Gu State Key Laboratory of Water Pollution Control and Green Resource Recycling, School of Environment, Nanjing University
13:30-13:45	36146	Before You Measure: How Sampling Strategies Shape Microplastics Quantification in Soils	Samuel J. Cusworth ETH Zurich
13:45-13:57	35243	Development of a protocol for the extraction and quantification of nanoplastics in agricultural soils	Quynh Nhu Phan Le Laboratory for inorganic and organic analysis, Flemish Institute for Technological Research, Mol, Belgium

Parallel Sessions

Monday, June 8 (Session 305005)			
13:57-14:09	32850	Characterization of microplastics using pyr-GC/MS and their leaching and runoff behavior in soil	Jeong Yeon Kim Chungbuk National University
14:09-14:21	33507	Temporal Dynamics of Microplastic Accumulation and Soil Quality under Plastic Mulching in Mediterranean Soils	Muhittin Onur Akca Ankara University (Department of Soil Science and Plant Nutrition, Faculty of Agriculture, Ankara, Turkey)
14:21-14:33	32178	From snowpack to soil: microplastic pathways in alpine ecosystems	Benech Andrea University of Turin, Department of Agricultural, Forest and Food Sciences
14:33-14:45	34963	Ten years of microplastics in the soil-plant system research-what have I learned?	Yueling Qi Anhui University
14:45-14:57	34526	Impact of Microplastic Pollution in U.K. Woodland Soil: Evidence from a Long-Term Soil Burial Experiment	Abbie Rogers Northumbria University
14:57-15:09	31769	Migration Behaviors of Typical Microplastics in Soil with Different Textures by Rainfall Induced Surface Runoff	Hui Liu Hohai University

Parallel Sessions

Monday, June 8 (Session 305005)			
16:30-16:45	36009	Interfacial Colloidal Behavior of Microplastic-Pollutant Complexes and Its Regulation by Environmental Conditions	Jie Han Xi'an Jiaotong University
16:45-17:00	319B93	Weathered microplastics trigger metal transformation	Fei Dang tate Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences
17:00-17:15	32196	Mineralization determines microplastic effects on soil organic carbon	Jie Wang China Agricultural University
17:15-17:30	32844	Mineralization and transfer of polymer-derived carbon from biodegradable mulch into the soil microbial biomass and organic matter pool	Fan Ding Shenyang agricultural university
17:30-17:45	31885	Microplastic transport in soil by nematodes	Yin Liu Department of Environment, Faculty of Bioscience Engineering, Ghent University, 9000 Ghent, Belgium.
17:45-18:00	34520	Changes in the dispersivity of soil substrates after contamination with microplastic polystyrene	Svetlana Klushina Faculty of Soil Science, Lomonosov Moscow State University, Moscow, Russia
18:00-18:15	34961	Oxidized Residues Accelerate Phosphorus Immobilization via Enhanced Surface-induced Nucleation	Hang Zhai Southwest University

Parallel Sessions

Tuesday, June 9 (Session 305005)			
09:00-09:15	32400	Micro-nanoscale polystyrene and polyvinyl chloride co-exposure impacts the uptake and translocation of toxic elements and pesticides by lettuce and wheat	Jason Christopher White The Connecticut Agricultural Experiment Station
09:15-09:30	319B94	Precise tracking of nanoparticles in plant roots	Xian-Zheng Yuan School of Environmental Science & Engineering, Shandong University
09:30-09:45	36500	How does plastic pollution influence soils and soil fungal communities in temperate alluvial forests	Žaklina Marjanović University of Belgrade - Institute for Multidisciplinary Research, National Institute of the Republic of Serbia, Belgrade, Serbia
09:45-10:00	319B95	Impact of microplastics on nitrate reduction in agricultural soils	Xiaofang Ma State Key Laboratory of Soil and Sustainable Agriculture, Changshu National Agro-Ecosystem Observation and Research Station, Institute of Soil Science, Chinese Academy of Sciences
10:00-10:15	33184	Harnessing Trichoderma spp. to Enhance Foliage Yield and Quality of Lettuce (Lactuca sativa L.) in Microplastic-Contaminated Soils: A Sustainable Strategy for Global Soil Health and Food Security	P. K .SHARMA Banaras Hindu University, Varanasi-221005, India
10:15-10:30	36123	Soil microplastic risk from microcosms to field surveys: nematode bioindicators across scales from individuals to micro-food webs	Xuchao Zhang Humboldt-Universität zu Berlin

Parallel Sessions

Tuesday, June 9 (Session 305005)			
10:30-10:45	34491	Ecological risk and machine-learning prediction of microplastic pollution in peatlands	Huu-Tuan Tran Kansas State University
10:45-11:00	33399	Short-Term Exposure to Polystyrene Micro- and Nanoplastics modifies Soil Nutrient Availability without affecting Lettuce Productivity in Tropical Climate	Meththa Gimhani School of Environmental and Natural Sciences, Bangor University, Bangor, Gwynedd, LL57 2UW, UK; Sri Lanka Institute of Nanotechnology, Nanotechnology and Science Park, Mahenwatta, Pitipana, Homagama, Sri Lanka
11:15-11:30	32797	Microplastics disrupt nitrogen-fixing bacterial community with consequences for plant growth	Tingting Zhao Freie Universität Berlin
11:30-11:45	34103	Earthworms Mediated Fate of Microplastics in Soil	Ke Meng Wageningen University & Research; Nanjing University
11:45-12:00	35665	Soil metabolome impacts the formation of the eco-corona and adsorption processes on microplastic surfaces	Yang Song Institute of Soil Science, Chinese Academy of Sciences
12:00-12:15	31979	From field to greenhouse: evaluating microplastics pollution and its potential impact on Mediterranean agricultural soils	Irene Mandrini IRTA (Sustainability in Biosystems)

Parallel Sessions

Tuesday, June 9 (Session 305005)			
13:30-13:45	32237	Environmental Microplastics: Occurrence, Surface Changes and Bioaccumulation	Chen Tu Institute of Soil Science, Chinese Academy of Sciences
13:45-14:00	32671	Impacts and degradation of microplastics (MPs) in agricultural soil	Xiao-San Luo Nanjing University of Information Science & Technology
14:00-14:15	319B92	Beyond Detection: An Intelligent Raman-Based Exploration of the Microplastic Full-Lifecycle	Bei Li State Key Laboratory of Advanced Manufacturing for Optical Systems, Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences
14:15-14:30	32733	Ecological Risk Assessment of Microplastics in Soil Based on Probability Distribution and Machine Learning	Cheng Peng East China University of Science and Technology
14:30-14:45	32093	Comparative Degradation and Environmental Impacts of Biodegradable Mulch Films in Agricultural Soils of the United States and China: Toward Sustainable Plastic Management	Xueyu Zhou Washington State University
14:45-15:00	33415	Determining a Carbon Mass Balance and Active Degraders of Isotopically Labeled Polylactic Acid (PLA) in Soil	Jacob W. Clements University of Tennessee-Knoxville
15:00-15:15	31918	A first classification of the effects of microplastics on soil	Julia Feeth University of Sydney

Parallel Sessions

Monday, June 8 Tuesday, June 9	Room: Convention Center, Nanjing 302B
Session 305006	**New Pollutants in Soils & Agro-Environmental Health** **Convener:** Yanzheng Gao, Nanjing Agricultural University, China **Co-Conveners:** Hui Li, Michigan State University, USA Dongqiang Zhu, Peking University, China

Schedule	ID	Title	Presenter
		Monday, June 8	
13:30-13:45	32236	Phototransformation of New Organic Contaminants and Associated Biological Effects as Mediated by Smectite Clays	Dongqiang Zhu College of Urban and Environmental Sciences, Peking University
13:45-14:00	32627	Spatial Compartmentalization Overrides Antibiotic Effects in Shaping Plant-Associated Bacterial Communities: Insights from the Lettuce Microbiome	Oluwaseyi Samuel Olanrewaju Unit for Environmental Sciences and Management, North-West University, Potchefstroom Campus
14:00-14:15	34944	Legacy Phosphorus and the Environmental Health of Agricultural Soils in South Korea	Benjamin L. Turner College of Resources and Environment, Shandong Agricultural University, Tai'an, China; Institute of Agriculture and Life Sciences, Gyeongsang National University, Jinju, South Korea
14:15-14:25	35196	Isotopic Techniques to Assess the Fate of Antimicrobials and Implications for Antimicrobial Resistance in Agricultural Systems	Leilei Xiang Institute of Soil Science, Chinese Academy of Sciences; University of Chinese Academy of Sciences

Parallel Sessions

Monday, June 8 (Session 305006)			
14:25-14:35	32682	Distribution and Fate of Per- and polyfluoroalkyl Substances in Sludge and Biosolids from Municipal Wastewater Treatment Plants across the United States	Zhiliang Xu Department of Plant, Soil and Microbial Sciences, Michigan State University
14:35-14:45	32585	Can Machine Learning Predict Plant Uptake of Per- and Polyfluoroalkyl Substances from Soils?	Rui Li Michigan State University
14:45-14:55	32549	Global ecological and health risks of PFAS in surface soil	Min Wei Zhejiang University
16:30-16:45	31854	Boron in Soil: Linking Microbial Responses and Plant Performance	Felipe Bastida CEBAS-CSIC
16:45-16:55	33910	Adsorption of antibiotics by natural clay minerals	Leonid Perelomov Tula State Lev Tolstoy Pedagogical University
16:55-17:05	35827	Remediation of Prometryn-Contaminated Soil through Microbial-Phytoremediation Synergy: An Integrated Strategy for Soil Degradation Control and Sustainable Reclamation	Yunpeng Wu Southwest Forestry University
17:05-17:15	32884	Soil Biogeochemical Responses to Acid Mine Pollutants in Coal-Mined Inceptisols of Assam, India	Lumbini Kalita PhD scholar,Department of Soil Science, Assam Agricultural University
17:15-17:25	36381	Contrasting effects of arsenic and cadmium on PFAS sorption and transport in soils: Mechanistic insights and mathematical models	Wei Zhang Nanjing University

Parallel Sessions

Tuesday, June 9 (Session 305006)			
09:00-09:15	32068	Advanced Diagnostics and Remediation Technologies for Highly Contaminated Soils	Minkina Tatiana Southern Federal University
09:15-09:30	34958	Ligand-to-Metal Charge Transfer Driven Transformation of Ferrihydrite and its Effect on Arsenic Repartitioning	Xionghan Feng College of Resources and Environment, Huazhong Agricultural University
09:30-09:40	32032	Environmental risk of geoaccumulation and transmission of heavy metals in tailing dams with radioactive elements	Inom Normatov Tajik National University
09:40-09:50	320B62	Nanotoxicomics: Cellular-subcellular impact of nanoparticles in plants	Vishnu D. Rajput
11:15-11:30	32254	Biochar downsizing: From bulk to nanoscale solution in soil remediation and contaminants immobilization	Patryk Oleszczuk Maria Curie-Sklodowska University in Lublin
11:30-11:45	31886	Chemical characterization, fluorescence properties, and photochemical reactivity of natural dissolved organic matter	Davide Vione University of Turin
11:45-11:55	33397	Occurrence of pesticide residues under different land uses across Europe	Andres Rodriguez Seijo Department of Plant Biology and Soil Science, Area of Soil Science and Agricultural Chemistry, Faculty of Sciences, University of Vigo
11:55-12:05	36156	Persulfate activation by Schwertmannite degrading phenanthrene in soil	Yanyan Wang Shanxi Agricultural University
12:05-12:15	33309	Biotransformation of tire-derived 6PPD and 6PPD-Q and metabolism alteration in rice plants under different exposure routes	Jinlin Jiang Nanjing Institute of Environmental Science of the Ministry of Ecology and Environment

Parallel Sessions

Tuesday, June 9 (Session 305006)			
13:30-13:45	32428	Risk Ranking of Antimicrobial Resistance Across One Health Sectors: Leveraging Long-Read Sequencing and Methylation Analysis	Antti Karkman Department of Microbiology, University of Helsinki
13:45-14:00	33901	Antibiotic Residues, Microbial Ecology, and Greenhouse Gas Production in Manure: An Integrated One Health Perspective	Fredrick Gudda International Livestock Research Institute (ILRI); Department of Population Health, Aga Khan University
14:00-14:10	34605	Ecological Risks of Antibiotic Residues and Bioremediation in Agricultural Soils	Lixia Zhao Agro-Environmental Protection Institute, Ministry of Agriculture and Rural Affairs
14:10-14:20	34159	Effects of predator-prey interactions on driving the evolution of bacterial antibiotic resistance	Hangwei HU The University of Melbourne
14:20-14:30	33318	From active antibiotic degraders to resistome-risk mitigation in agricultural soils	Zhi Mei Catalan Institute for Water Research
14:30-14:40	34257	Mitigation of antibiotic resistance genes in agricultural soil by Fe/Mn oxides functionalized biochars via suppressing horizontal gene transfer	Yuxin Li Ocean University of China

Parallel Sessions

Tuesday, June 9 (Session 305006)			
16:30-16:45	35081	Advancing Microplastics Research and Mitigation through Nuclear Science and Case Studies	Fang Wang Joint FAO\IAEA Centre of Nuclear Techniques in Food and Agriculture, Department of Nuclear Sciences and Applications, International Atomic Energy Agency
16:45-17:00	33521	Sulfamethoxazole Transformation by Heat-Activated Persulfate: Linking Transformation Products Patterns with Compound-Specific Isotope Analysis	Xiao Liu Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences
17:00-17:15	35334	Synthesis and isotope analysis of labelled sulfamethoxazole to trace persistence and natural degradation in the field	Martin Elsner Technical University of Munich (TUM)
17:15-17:25	34757	Climate-Driven Soil Processes Controlling the Fate of Sulfamethoxazole and Environmental Antimicrobial Resistance in Tropical Agro-Riverine Systems of Vietnam	Ha Lan Anh Isotope Hydrology Laboratory, Institute for Nuclear Science and Technology, VINATOM, Hanoi, Vietnam
17:25-17:35	34677	Adsorption Study of Sulfamethoxazole and Ciprofloxacin on Soil and Biochar Composite	Santanu Mukherjee MS Swaminathan School of Agriculture, Shoolini University of Biotechnology and Management Sciences, Solan 173229, India
17:35-17:45	36238	Fate of Di(2-ethylhexyl) Phthalate (DEHP) in Agricultural Soil: The Role of Environmentally Characteristic Microplastics	Lili Tian Jiangsu Academy of Agricultural Sciences
17:45-17:55	34400	Plastic and Non-Plastic Microfibre Biodegradation in Soil: Monitoring the Impact	Emily Patricia Donaghy Northumbria University
17:55-18:05	34127	Nationwide Screening and Priority Ranking of Plastic Additives in Agricultural Soils of China	Jiamin Zeng Institute of Tibetan Plateau Research, Chinese Academy of Sciences

Parallel Sessions

Tuesday, June 9	Room: Convention Center, Nanjing 206
Session 305007	**Organohalide Biogeochemical Cycling and Remediation in Soil** **Convener:** Shanquan Wang, Sun Yat-Sen University **Co-Conveners:** Jun Yan, Institute of Applied Ecology, Chinese Academy of Sciences Lorenz Adrian, Helmholtz Centre for Environmental Research (UFZ) Michael Manefield, University of New South Wales (UNSW Sydney)

Schedule	ID	Title	Presenter
09:00-09:20	35546	Microbial Processes Impacting Fate and Transport of PFASs	Frank Löffler The University of Tennessee
09:20-09:40	33962	Interactions of Zero-Valent Iron with Groundwater Environmental Components and Their Effects on Dechlorination	Feng He Jiangnan University
09:40-10:00	35622	Combined Processes for the Remediation of Trichloroethylene-Contaminated Groundwater: Biological Reductive Dechlorination Coupled with Biochar Adsorption and Supported by Polyhydroxyalkanoates from Organic Wastes	Marco Petrangeli papini University of Rome
10:00-10:15	33884	Community Diversity Determines Colonization and Performance of Organohalide-respiring Bacteria	Guofang Xu Zhejiang University
10:15-10:30	34356	Applying Compound Specific Stable Isotope Analysis for Characterizing the Biotransformation of Hexachlorocyclohexane Isomers by Different Methanogens	Yaqing Liu Guangxi University
10:30-10:45	34035	Anaerobic degradation of chloromethane by ”Candidatus Chloromethanibacter formatiformans“ strain JHJ	Huijuan Jin Institute of Applied Ecology, Chinese Academy of Sciences
10:45-11:00	33889	Hotspots for Microbial Dehalogenation of Persistent Organohalide Pollutants	Jingting Liu National University of Singapore

Parallel Sessions

Tuesday, June 9 (Session 305007)			
11:15-11:35	33472	Mapping the Co-Occurrence of Organohalides and Microbial Dehalogenation: A Microbial Biochemistry Framework for One Health	Yan He Zhejiang University
11:35-11:50	34315	Enhancing Electrochemical Reductive Defluorination of PFASs Using ZIF-67 Modified Cathode: Mechanistic Insights and Performance Optimization	Zhuobiao Ni South China Agricultural University
11:50-12:05	33791	Organic Carbon Availability for Sulfate-Reducing Bacteria Governs the Dechlorination Reactivity of Biogenic Sulfidated Nanoscale Zero-Valent Iron	Binbin Wang Zhejiang University of Technology
13:30-13:50	33457	Microbial defluorination of PFASs by native consortia enriched from PFASs and CAHs co-contaminated sites	Xin Song Institute of Soil Science, Chinese Academy of Sciences
13:50-14:10	33297	The Marine Environment as a Rich Source of Diverse Anaerobic Organohalide-Respiring Bacteria	Max Häggblom Rutgers University - New Brunswick
14:10-14:30	33086	Design of effective materials to collaborate with microorganisms in reductive remediation of chlorinated organic pollutants	Jingchun Tang Nankai University
14:30-14:45	33579	N-enriched biochar-iron cobalt mineral system for biomimetic reductive dehalogenation	Weizhao Yin Jinan University (Guangzhou)
14:45-15:00	33611	Demonstration Verification of Characterization Technology for DNAPLs in Typical Chemical Sites	Le Yu Nanjing Institute of Environmental Sciences, Ministry of Ecology and Environment of China

Parallel Sessions

Tuesday, June 9 (Session 305007)			
16:30-16:50	33175	Anaerobic biochemistry at the core of reductive dehalogenation in soil and groundwater	Lorenz Adrian Helmholtz Centre for Environmental Research - UFZ; Chair of Geobiotechnology, Technische Universität Berlin, Berlin, Germany
16:50-17:10	32843	Microbial reductive dehalogenation of emerging organohalides and its application in bioremediation	Qihong Lu Sun Yat-sen University
17:10-17:25	34147	Concerted microbial synergy and syntrophy facilitates anaerobic mineralization of 2,4-dichlorophenoxyacetic acid	Xiuying Li Institute of Applied Ecology, Chinese Academy of Sciences
17:25-17:40	32966	Soil Organic Carbon Prediction Based on Vis-NIR Spectral Classification Data Using GWPCA-FCM Algorithm	Haoyu Wang Shandong Agricultural University
17:40-17:55	31610	Amendment of Organic Acids Significantly Enhanced Hydroxyl Radical Production during Oxygenation of Paddy Soil Slurries	Yixuan Wang State Key Laboratory of Pollution Control and Resource Reuse, School of the Environment, Nanjing University
17:55-18:10	32969	A Novel Sample Selection Strategy for Instance-based Transfer Learning in Local Soil Organic Carbon Estimation	Jiayi Zhang Shandong Agricultural University

Parallel Sessions

Monday, June 8 Tuesday, June 9	Room: Convention Center, Nanjing 302A
Session 305009	**Soil Pollution by Heavy Metals and Risk Control**
	Convener: Peng Wang, Nanjing Agricultural University, China **Co-Conveners:** Longhua Wu, Institute of Soil Science, Chinese Academy of Sciences Peter Kopittke, The University of Queensland, Australia Enzo Lombi, University of South Australia

Schedule	ID	Title	Presenter
Monday, June 8			
13:15-13:30	320B37	Novel approaches for examination of traceelements in the soil-plant continuum	Peter Kopittke The University of Queensland
13:30-13:45	32156	Soil and human health	Peng Wang Nanjing Agricultural University
13:45-14:00	36590	Continental-Scale Soil Mercury Mapping in Australia to Refine Global Frameworks	Larissa Schneider Australian National University
14:00-14:15	36584	Eco-Restoration and Phytoremediation of Metal-Contaminated Soils in Arid Landscapes Using Mycorrhized Lygeum spartum	Ines Terwayet Bayouli Key Laboratory of Soil, Environment and Pollution Remediation, Institute of Soil Science, Chinese Academy of Sciences, No. 298, Chuangyou Road, Qilin Street, Jiangning District, Nanjing, Jiangsu, 211135, China

Parallel Sessions

Monday, June 8 (Session 305009)			
14:15-14:30	36115	Arbuscular mycorrhiza orchestrates phenotypic plasticity of a critical suite of functional traits in plants under vanadium stress	Ziwei Cao Nanjing Tech University, Nanjing
14:30-14:45	36022	Mechanism informed soil washing strategy for synchronized remediation of As, Cd, and Pb	Zhao Liu Institute of Urban Environment, Chinese Academy of Sciences
14:45-15:00	35877	Restricting roles of arbuscular mycorrhizal fungi in cadmium uptake and translocation in rice	Junli Liu Zhejiang Academy of Agricultural Sciences
15:00-15:15	35613	Electrochemical and molecular mechanisms underlying aluminum-enhanced copper homeostasis in maize roots within acidic copper-contaminated soils	Linyu Guo Institute of Soil Science, Nanjing
16:30-16:45	35170	Core microbiomes of Cd- hyperaccumulators and its contribution to plant performance	Tingqiang Li Zhejiang University
16:45-17:00	35337	Content of trace elements and polycyclic aromatic hydrocarbons in soils of polar regions: variability across landscapes	Ivan Alekseev Karelian Research Centre RAS
17:00-17:15	35252	Aqueous and colloidal dynamics in size-fractionated paddy soil aggregates with multiple metals contaminants under redox alternations	Ming Zhou Sinopec Research Institute of Petroleum Processing
17:15-17:30	35095	Dual Roles of Corticiaceae Sp. ZJ 06 In Synergetic Soil Heavy Metal Immobilization and Soil Fertility Enhancement	Lixun Zhang Tsinghua University
17:30-17:45	34951	Efficacy of Agricultural Waste-Derived Engineered Biochar on Arsenic/Iron Dynamics and Alleviating Arsenic Risk in Waterlogged Paddy Soil	Saha Shatabdi Graduate School of Agricultural Science, Tohoku University, Sendai, Japan
17:45-18:00	34892	Iron (hydr)oxide-enriched Biochar for Arsenic Immobilization under Microbial Iron Reduction and Fluctuating Redox Conditions	Yihao Wang Institute of Agricultural Resources and Regional Planning
18:00-18:15	34747	Impact of human activities on soil heavy metal pollution and its potential ecological risks of hills within Guangzhou	Miao Wang South China Normal University

Parallel Sessions

Tuesday, June 9 (Session 305009)			
09:00-09:15	35913	Tracing Cadmium Migration and Transformation from Atmospheric Deposition to Rice via Isotopic Fingerprinting	Jun Zhou Institute of Soil Science, Chinese Academy of Sciences
09:15-09:28	33255	Spatial Patterns and Predictive Controls of Heavy Metals in Agricultural Ditch Network Across China	Waqas Mohy-Ud-Din Tianjin University
09:28-09:41	34316	Quantitative Analysis of Heavy Metal Pollution Sources, Influencing Factors, and Delineation of Pollution Risk Areas in Mining Area Soil: A Combined machine learning and Application of Receptor Models	Jia Guo South China Agricultural University
09:41-09:54	34153	Colloidal Cd Mobilization During Reductive Dissolution of Cd-Birnessite by Organic Matter: Role of pH-Dependent Mineral Transformation and Organic Fractionation	Jiangyanjun Sun Yat-sen University
09:54-10:07	34133	Source-risk-driver analysis of heavy metal pollution in karst soils: An integrated assessment in eastern Yunnan, China	Li Bao Yunnan Agricultural University
10:07-10:20	34128	Distinct assembly processes and ecological strategies of bacterial and fungal communities during the aging of Cd and As in soils: Fungi play a predominant role in microbial resistance	Ting Yang Minzu University of China
10:20-10:33	34062	Bioavailability and Mobilization of Colloidal Cd in Alkaline Soils of Wheat Field	Chang Liu Sun Yat-sen University
10:33-10:46	34021	Accumulation characteristics and risk prediction of Cu and Zn contents in typical facility soils in China	Zhang Naiming Yunnan Agricultural University
10:46-10:59	33990	Strategy to Reduce Cadmium Accumulation in Rice via Regulating Root Barrier Formation	Qi Tao Sichuan Agricultural University

Parallel Sessions

Tuesday, June 9 (Session 305009)			
11:15-11:30	33916	Metallomes in Soil-Crop Systems: Integrating Nutrition and Food Safety	Wei Zhang Department of Plant, Soil and Microbial Sciences, Michigan State University
11:30-11:45	33819	Mechanism of Auxin Regulation on Cadmium Uptake in Roots of Different Cadmium-Accumulating Rice Lines	Yan Zhou sichuan agricultural university
11:45-12:00	33643	Phytoremediation of Multi-Metal Contaminated Mine Soils: Native Species Screening and Chelate-Assisted Phytoextraction	Ngoc Son Hai Nguyen Faculty of Resource Management, Thai Nguyen University of Agriculture and Forestry
12:00-12:15	33500	Simultaneous immobilization of arsenic and cadmium in paddy soil with co-application of birnessite and lime	Jianyu Lin Nanjing University
12:15-12:30	33358	Organic Matter Regulates Soil Cadmium Bioavailability	Chenchen Qu Huazhong Agricultural University
13:30-13:45	32745	IAA-producing and Cd-tolerant endophyte Bacillus sp. RE35 enhance Cd trap in rice roots via root cell wall remodeling during colonization	Yan Gao Jiangsu Academy of Agricultural Sciences
13:45-13:57	33246	Reduction of lead bioavailability and phytotoxicity in Pb-slag contaminated soil using soil mixing and compost-modified biochar	Sifau A. Adejumo University of Ibadan, Ibadan, Nigeria
13:57-14:09	33096	Microbial Induced Carbonate Precipitation (MICP) for Cadmium Contamination Remediation coupled with Life Cycle Carbon Sequestration	Mingping Sheng Nanjing University

Parallel Sessions

Tuesday, June 9 (Session 305009)			
14:09-14:21	32942	Stabilizing Urban Soil Lead: Long-Term Effects of Soil Amendments on Bioaccessibility and Speciation	Ganga Hettiarachchi Kansas State University
14:21-14:33	32906	Chemical Remediation of Multi metal Contaminated Inceptisol by Valorizing Calcitic and Lignocellulosic Wastes	Puspita Mookerjee Department of Soil Science & Agricultural Chemistry, Palli Siksha Bhavana Visva-Bharati
14:33-14:45	32752	A Basin-Scale Synthesis of Inorganic Contamination Across Slovenia's Major Floodplains	Nejc Golob University of Ljubljama, Biotechnical faculty, Department of Agronomy
14:45-14:57	32715	Combining multiple high-resolution in-situ techniques to understand the metals mobilization at anoxic-oxic interfaces in flooded industrial soils	Danxing Yang Hunan Agricultural University
14:57-15:09	32312	Quantification of chromium and nickel lateral migration in serpentine soils via ion, colloid and particulate pathways	Shengsheng Sun Institute of Quality Standard and Monitoring Technology for Agro-products of Guangdong Academy of Agricultural Sciences
16:30-16:41	34685	Mining-induced arsenic contamination: cascading effects on soil biogeochemistry, microbial community structure and human health risks	Shreya Chakraborty Agricultural and ecological research Unit, Indian Statistical Institute, Giridih, India
16:41-16:52	34402	Machine learning-supported determination for site-specific natural background values of soil heavy metals	Jian Wu SichuanUniversity
16:52-17:03	34396	Land use shapes air-surface Hg0 exchange in karst areas	Jicheng Xia Guizhou University

Parallel Sessions

Tuesday, June 9 (Session 305009)			
17:14-17:25	32137	Particle-nanoparticle transformations in metal-contaminated soils	Michael Schindler University of Manitoba
17:25-17:36	31946	Atmospheric Deposition and Trace Element Contamination in Urban Garden Soils and Vegetables in Kingston, New York (US)	Salvatore Engel-Di Mauro SUNY New Paltz
17:36-17:47	31912	Flavonoid Steering Bacterial-Fungal-Soybean Tripartite Symbiosis: Facilitating Cadmium Stress Defense and Growth Enhancement in Soybean	Qingliang Cui Wuhan University of Technology; University of Chinese Academy of Sciences
17:47-17:58	31697	The Effect and Mechanism of Large-Scale Polymer Materials in the Remediation of Soil Chromium Pollution	Jia Wen Hunan University
17:58-18:09	31127	Mineral-organic matter association controls colloidal arsenic mobility from soil to lake	Xinyang Li Department of Earth Sciences, University of Manitoba
18:09-18:20	319B36	Comprehensive Assessment of Soil Heavy Metal Pollution in the Historic Center of Krakow, Poland: Geostatistical and Machine Learning Study	Michał Gąsiorek University of Agriculture in Krakow
18:20-18:31	34935	Large-scale nutrient management strategies shape acidification-induced risks for crop yields and food quality by cadmium	Donghao Xu Wageningen University and Research, Earth Systems and Global Change Group, PO Box 47, 6700AA Wageningen, the Netherlands

Parallel Sessions

Friday, June 12	Room: Convention Center, Nanjing 208
Session 305011	**Novel Techniques in Molecular Environmental Soil Science** **Convener:** Yujun, Wang Institute of Soil Science, Chinese Academy of Sciences **Co-Convener:** Dongmei Zhou, Nanjing University Wei Li, Nanjing University Mengqiang Zhu, University of Maryland

Schedule	ID	Title	Presenter
09:00-09:25	35881	Role of Molecular Environmental Science in Addressing a Changing Climate	Donald L. Sparks University of Delaware
09:25-09:40	34688	Visualization of Organic Carbon Distribution in Soil Minerals	Zhenqing Shi School of Environment and Energy, South China University of Technology, Guangzhou, Guangdong 510006, People's Republic of China
09:40-09:55	34638	Iron, sulfur, and carbon dynamics collectively regulate the fate of cadmium over the sulfidation-reoxidation cycle	Yujun Wang Institute of Soil Science, Chinese Academy of Sciences
09:55-10:10	34612	Interaction mechanisms of Cr with organo-mineral complexes : Past achievements and future perspective	Jianjun Yang Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences
10:10-10:25	34464	Influence of Soil Properties on the Extraction of Active Contaminant-Degrading Enzymes	Justin M. Hutchison University of Kansas

Parallel Sessions

Friday, June 12 (Session 305011)			
10:25-10:40	34697	Freeze-thaw driven colloid release from soils: Roles of aggregate turnover and pore network	Quanying Wang Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
10:40-10:55	35011	Elucidating the Molecular Mechanisms of Microplastics in Heavy Metal Transformation	Fei Dang Institute of Soil Science, Chinese Academy of Sciences
11:15-11:30	33490	Sample preparation and characterize of soil dissolved organic matter	Qing-Long Fu China University of Geosciences, Wuhan
11:30-11:45	34906	Molecular Mechanism of Mn Oxides driven Oxidative Decomposition and Polymerization of Litter-Derived DOM at Different pH Revealed by FT-IC	Xionghan Feng College of Resources and Environment, Huazhong Agricultural University
11:45-12:00	35667	Solid Phase Molecular Diversity Enhances Soil Organic Matter Persistence	Zhen Yang Research Center for Eco-environmental Sciences, Chinese Academy of Sciences
12:00-12:15	35615	Using an inexpensive RGB color sensor for field quantitative assessment of soil accessible Cu(II)	Guo Linyu Institute of Soil Science, Nanjing
12:15-12:30	36236	Application of liquid chromatography coupled with FT-ICR MS for analysis of soil dissolved organic matter	Xiudi Lv China University of Geosciences

Parallel Sessions

Thursday, June 11	Room: Convention Center, Nanjing 206
Session 305012	**Soil Pollution and Remediation: Investigation, Mechanisms, and Remediation** **Conveners:** Hua, ZHANG. Institute of Geochemistry, Chinese Academy of Sciences Jing Song, ISSCAS Yasin Orooji, Distinguished Professor, College of Geography and Environmental Sciences, Zhejiang Normal University **Co-Conveners:** Huan ZHONG, School of Environment, Nanjing University Ruyi YANG, School of Ecology and Environment, Anhui Normal University Xuefeng YANG, Institute of Geochemistry, Chinese Academy of Sciences Roger Brewer, TOS Environmental, tosbrewer Xinyi Cui, Nanjing University Asif Hayat, Researcher in Materials Science, Lishui University

Schedule	ID	Title	Presenter
11:15-11:30	32827	Methods for Assessment of Risk Posed to Agricultural Lands and Food Crops by PFAS-Contaminated Sludges and Irrigation Water	Roger Brewer TOS Environmental, CAS Institute of Soil Science
11:30-11:45	33874	Arbuscular mycorrhizal fungi suffer from perfluorooctanoic acid in soil but ameliorate negative effects on plant performance	Tingting Zhao Freie Universität Berlin
11:45-12:00	36242	PFAS Composition in Irrigation Water Dictates PFAS Uptake by Lettuce: Evidenced by Field Sampling and Laboratory Simulation	Rui Liu Institute of Soil Science, Chinese Academy of Sciences, Nanjing, China
12:00-12:15	35075	Spatial Differentiation Pattern and Driving Mechanisms of Co-enrichment of Selenium and Cadmium in Soils from a Typical Indigenous Zinc Smelting Area	Chaobo Wang College of Agriculture, Guizhou University, Guiyang, 550025, China; Key Laboratory of Karst Georesources and Environment of Ministry of Education, Guizhou University, Guiyang, 550025, China
12:15-12:30	32935	From Enrichment to Digestion: Risk-Benefit Evaluation of Selenium-Enriched Foods Under Arsenic Co-Exposure	Hind BELARBI UM6P & UGent

Parallel Sessions

Thursday, June 11 (Session 305012)			
13:30-13:45	33744	Soil Cadmium Immobilization and Selenium Activation: A Strategy to Enhance Health in High Geological Background Areas	Xingmei Liu Zhejiang University
13:45-14:00	34097	Occurrence and Transformation of Selenium and Cadmium in Porewater During Flood and Drainage: Implications for Safe Production of Rice in Cadmium-Contaminated Seleniferous Paddy Soils	Xin Liang Sun Yat-sen University
14:00-14:15	34218	Selenium-Based Rapid Health Risk Diagnosis and Green Remediation of Heavy Metal Pollution	Hua Zhang Institute of Geochemistry, Chinese Academy of Sciences
14:15-14:30	31753	Interactions of selenium and heavy metals in paddy systems: Mechanisms and risk assessment	Xuefeng Yang Institute of Geochemistry, Chinese Academy of Sciences
14:30-14:45	35856	Recent Strategies in Cadmium Translocation Control in Rice Plants: Mechanisms and Integrated Model	Bin Guo Zhejiang Academy of Agricultural Sciences

Parallel Sessions

Thursday, June 11 (Session 305012)			
16:30-16:45	34806	In Situ Removal of Heavy Metals from Farmland Using Lignin Hydrogel-Based Nanocomposites: A Sustainable Strategy for Simultaneous Crop Production and Soil Remediation	Jianbin Deng South China Agricultural University
16:45-17:00	32192	Model-based Rescue: Phytotoxicity Threshold and Control Strategy of Fluridone Residue on Herbicide-sensitive Rotation Maize	Chi Wu Institute of Plant Protection, Chinese Academy of Agricultural Sciences
17:00-17:15	34054	Engineering Iron-Microbe Interfaces on Biochar to Regulate Phosphate Fixation and Ibuprofen Retention across Soil-Water Continua	Selly Maisyarah National Chung Hsing University
17:15-17:30	31675	Enhanced Remediation of Herbicide-Contaminated Soils Using Phosphate-Modified Biochar	Xingang Liu Institute of Plant Protection, Chinese Academy of Agricultural Sciences

Parallel Sessions

Monday, June 8 Tuesday, June 9	Room: Convention Center, 6202
Session 306003	**Understanding, Managing, and Innovating for Salt-Affected Soils** **Conveners:** Rongjiang Yao, State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences, Nanjing 210008, China Maria Konyushkova, FAO, Global Soil Partnership secretariat Jorge Batlle-Sales. President Commission 3.6 IUSS. University of Valencia **Co-Conveners:** Elia Scudiero, Department of Environmental Sciences, University of California Riverside, Riverside, California 92521, USA Xuan Yu, State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences, Nanjing 210008, China Sanjay Arora, Vice-President Commission 3.6 IUSS. ICAR-Central Soil Salinity Research Institute. Lucknow 226002 (UP) India

Schedule	ID	Title	Presenter
Monday, June 8			
Chair: Rongjiang Yao			
13:15-13:28	31575	"Reshaping soil structure": A systems engineering mode for ecological management of Salt-Affected Land	Shuwen Hu China Agricultural University
13:28-13:41	31614	Reclamation of saline-alkali soils using fulvic acid: mechanisms and field effects	Wentai Zhang Xinjiang Agricultural University
13:41-13:54	31686	Salinity management when irrigating with non-conventional water sources	Alon Ben-Gal Agricultural Research Organization - Volcani Institute

Parallel Sessions

Monday, June 8 (Session 306003)			
13:54-14:07	32366	Managing saline soil to boost crop yield and halve nitrogen losses	Wen Wen Zhejiang University
14:07-14:20	32664	Hybrid CNN-LSTM Model for Predicting Nitrogen, Phosphorus, and Potassium (NPK) Fertilization Requirements: Integrating Satellite Spectral Indices with Field Microclimate Data	Abdellatif Moussaid Center for Sustainable Soil Sciences (C3S), College of Agriculture and Environmental Sciences (CAES), University Mohammed VI Polytechnic (UM6P)
14:20-14:33	33414	Soil salinization reduces belowground multifunctionality and crop yield at large spatial scale	Shang Wang Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences; Department of Ecology of Agroecosystems, Helmholtz Centre for Environmental Research - UFZ
14:33-14:46	32292	Phosphorus Dynamics in Salt-Affected Drylands Soils: Influence of Parent Material and Agricultural Management	Andrea Salvucci Department of Agriculture, Food and Environmental Sciences, Polytechnic University of Marche
14:46-14:59	34760	Effect of salinity on soil water vapor sorption and associated hysteresis	Fangjin Dong China Agricultural University
14:59-15:12	32199	Impact of neglected and underutilized species (NUS) on marginal lands: a potential tool for the recovery of soil functionality	Tiziana Danise Department of Environmental, Biological, Pharmaceutical Sciences and Technologies, University of Campania “Luigi Vanvitelli”

Parallel Sessions

Monday, June 8 (Session 306003)			
Chair: Maria Konyushkova			
16:30-16:42	36135	Research on Salt-Alkali Tolerance Mechanisms of Characteristic Plants and Saline-Alkali Land Agriculture in Hetao-Ningxia Irrigation District	Xing Xu Ningxia University
16:42-16:54	31977	Quinoa as a Food Security Crop for Salt-affected and Dry Land Farming Systems	Ghulam Abbas COMSATS University Islamabad
16:54-17:06	319B69	Effects of Organic Materials on Nitrification Process in Saline-Alkali Farmland Soil	Ju Zhao Inner Mongolia Academy of Agricultural and Animal Husbandry Sciences
17:06-17:18	35657	Application of biochar in saline soils enhances soil resilience and reduces greenhouse gas emissions in arid irrigation areas	Qin'ge Dong Northwest A&F University
17:18-17:30	32071	Identification of Salt-Tolerant Barley Genotypes Using Multiple Traits Index and Nutritional Performance at Early Growth Stages	Saira Azmat School of agriculture and environment, University of Western Australia
17:30-17:42	33956	Spatial Distribution, Underlying Mechanisms, and Management Strategies of Soil Salinity in North China Cultivated land: A Soil Profile Perspective	Enyi Xie China Agricultural University

Parallel Sessions

Monday, June 8 (Session 306003)			
17:42-17:54	35339	Saltwater intrusion impact on coastal agricultural soils of Los Lagos Region, Chile	Osvaldo Salazar Universidad de Chile
17:54-18:06	33524	Coupling relationship between soil salinity, nutrients, and yield during reclaiming for planting rice in saline-sodic soils	Lihua Huang Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
18:06-18:18	35907	Advances in Amelioration Technologies for Sodic and Saline-Sodic Rice Paddy Fields with emphasis on the Songnen Plain of Northeast China	Mingming Wang National Key Laboratory of Black Land Protection and Utilization (Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, Changchun, China); Jilin Da'an Farmland Ecosystem National Field Scientific Observation and Research Station (Da'an, China); Northeast Saline-Alkali Land Sub-Center (National Saline-Alkali Land Comprehensive Utilization Technology Innovation Center, Dongying, China)
18:18-18:30	35284	Determination of Irrigation Depth for Tomato considering the Cost for Water under a Saline Condition	Haruyuki Fujimaki Tottori University

Parallel Sessions

Tuesday, June 9 (Session 306003)			
Chair: Jorge Batlle-Sales			
13:30-13:40	31897	Enhancement of Organic Matter in Saline-Alkali Soils: Mechanisms and Technologies	Yuping Zhuge Shandong Agricultural University
13:40-13:50	33858	Spatial Synergies and Trade-offs between Soil Salinity and Organic Carbon in the Yellow River Delta	Xinyu Liu Yantai Institute of Coastal Zone Research, Chinese Academy of Sciences
13:50-14:02	35927	Rice Reclamation Activates Mineral Phosphorus and Alleviates Phosphorus Limitation in Saline-Alkali Soils	Qilin Lv Beijing Academy of Agriculture and Forestry Sciences
14:02-14:14	33850	Soil Nitrogen Transformation under Organic Residue Management in Salt-Affected Soils of the Vietnamese Mekong Delta	Nguyen Thi Kim Phuong Soil Science Department, Can Tho University
14:14-14:26	36014	Halophyte Salt Absorption Characteristics and Biological Remediation Pathways for Saline-Alkali Lands	Yuan Su Ningxia Institute of Water Resources Research (Yinchuan, Ningxia, China)
14:26-14:38	36055	Wenyao: A Domain-Specific Large Language Model for AI-Driven Saline-Alkali Land Reclamation	Congcong Zheng Institute of Computing Technology, Chinese Academy of Sciences
14:38-14:50	36448	Identification of the maior constraint factors in sodic saline-alkali paddy soils	XueQingMeng Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
14:50-15:02	33520	Formation Mechanism of Salt Patches and Quantitative Relationship Between Water and Salt in Coastal Salinized Farmland	Wei Zhu Institute of Soil Science Chinese Academy of Sciences; Chuzhou University
15:02-15:14	319B68	Removal Mechanism and Process Application of Soil Washing Technology for Heavy Metals and Salt Ions in Contaminated Soil	Congyanghui Wu Zhengzhou Desen Environmental Technology Co., Ltd..

Parallel Sessions

Tuesday, June 9 (Session 306003)			
Chair: Xuan Yu			
16:30-16:42	33792	Desalination of sabkha soils as potential source of strategic metals	Makar Silaev Aramco Innovations LLC
16:42-16:54	31929	Escaping Salinity, Cyclone and other Coastal Hazards for Crop Production through Early Sowing in Wet Soils with Strip Tillage	Mohammad Asadul Haque Patuakhali Science and Technology University
16:54-17:06	36512	Global Salt-affected Soils Crisis: FAO's Latest Report and Strategic Responses	Peirou Zhen Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
17:06-17:18	35020	Construction of an Integrated Improvement Technology Model of "Top Promotion, Middle Modification, and Bottom Drainage" for Severe Saline-Alkaline Land in Arid Areas	Jianjun Han Macau University of Science and Technology; Research Institute for Environmental Innovation (Suzhou), Tsinghua
17:18-17:30	33737	The improvement of yield potential through amendment of saline-alkali soils in China: from plot to regional scales	Wenjiao Shi Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences

Parallel Sessions

Tuesday, June 9 (Session 306003)			
17:30-17:42	35953	Synergistic Effect of the Compound Conditioner of Humic Acid, Zeolite and Phosphate Rock Powder on Soil Quality and Rice Yield of Coastal Saline Soil	Junbo Zhang Zhejiang Academy of Agricultural Sciences
17:42-17:54	36621	Biologically Driven Remediation of Saline-Alkali Soils Using Soil Bio-activation Technology in Arid Regions	Abdul Sami GreenTech (Shanghai) Agricultural Technology Co., Ltd
17:54-18:06	33871	The spatial variation of soil quality across land-use and depth in salt-affected coastal soils: evidence from the former Go Cong Dong, Vietnam	Tung Xuan Tan Nguyen Department of Informatics, Natural Resources and Environment (DINRE), Institute for Environment and Resources (IER), Vietnam National University Ho Chi Minh City (VNU-HCM)
18:06-18:18	34478	Aquaculture impoundment reduces salt leaching efficiency of subsurface drainage systems in neighboring farms	Shuangshuang Yu State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences, Nanjing, China
18:18-18:30	34449	Effects of Different Amendment Measures on the Properties of Coastal Saline-Alkali Soil and Cotton Growth in the Yellow River Delta	Jinyi Yu Shandong Normal University

Parallel Sessions

Monday, June 8	Room: Expo Center, Hall 8, 8202
Session 307001	**Past, Present, and Future of SUITMA (Soils of Urban, Industrial, Traffic, Mining and Military Areas)** **Convener:** Kye-Hoon John Kim, The University of Seoul **Co-Convener:** Przemysław Charzyński, Nicolaus Copernicus University

Schedule	ID	Title	Presenter
13:15-13:30	33636	Challenges for SUITMA posed by the 2025-2034 Decade of Soil Sciences for Sustainable Development	Edoardo A.C. Costantini CNR-IBE; Academy of Georgofili; National Academy of Agriculture
13:30-13:45	35549	Urban Soils of Nanjing City	Jin-Ling Yang Institute of Soil Science, Chinese Academy of Sciences
13:45-14:00	32222	Urban environmentally sensitive areas (U-ESA) in the city of Bratislava	Jaroslava Sobocka National Agricultural and Food Centre, Soil Science and Conservation Research Institute
14:00-14:15	36358	Effect of solar panel installation on past agricultural soils	Masayuki Kawahigashi Tokyo Metropolitan University
14:15-14:30	31869	Cultural layer in urban soils of Saint Petersburg, Russia	Anastasia Sheshukova Saint Petersburg State University
14:30-14:45	32923	Do local non-statutory habitat designations reflect differences in below-ground biodiversity and functioning in urban green space?	Peng Huang University of Manchester
14:45-15:00	35160	Characterization, hazards assessment and remediation of heavy metals-explosives contaminated soil in military training ranges	Yongbing Zhu, Sanping Zhao, Mengwei Han, Songhao Luo,Bin Dong, Bin Xing State Key Laboratory of Chemistry for NBC Hazards Protection
15:00-15:15	35905	Underestimation of soil organic carbon by global spatially explicit soil datasets in Chinese urban greenspaces	Yiming Xu School of Grassland Science, Beijing Forestry University, Beijing, China

Parallel Sessions

Monday, June 8 (Session 307001)			
16:30-16:45	35139	Environmental behavior of rare earth elements (REEs) in mining area: Occurrence, release, and transport	Miaoyue Zhang Sun Yat-sen University
16:45-17:00	33174	Assessment of trace elements mobility in Technosols developed on heaps of historical polymetallic ore mining in the Sudety Mts., SW Poland	Damian Murach Department of Soil Science, Institute of Agriculture, Warsaw University of Life Sciences - SGGW, Warsaw, Poland
17:00-17:15	33434	Who Bears the Burden? Trace Element Contamination and Environmental Justice in Chicago's Urban Parks	Anna Paltseva Purdue University
17:15-17:30	32273	Soil Diversity in the City of Moscow as a Mirror of Evolutionary Trends in Urban Pedogenesis	Prokofeva T. V. Lomonosov Moscow State University
17:30-17:45	32676	Healthy Soils for Healthy Communities - A Community-based Urban Soil Initiative from Los Angeles	Yujuan Chen Tennessee State University
17:45-18:00	36189	Metabolic resilience of Allium cepa L. in urban technosols: the role of soil sealing and compaction on raffinose family oligosaccharides accumulation	Sara Di Lonardo Research Institute on Terrestrial Ecosystems (IRET), National Research Council (CNR), Via Madonna del Piano 10, 50019 Sesto Fiorentino, Italy; National Biodiversity Future Center (NBFC), Piazza Marina 61, 90133 Palermo, Italy
18:00-18:15	36272	Realising the value of urban soils	Hadee Thompson-Morrison Bioeconomy Science Institute

Parallel Sessions

Monday, June 8	Room: Convention Center, Nanjing 403B
Session 308001	**Health Maintenance and Sustainable Management of Acidified Soils** **Convener:** Renfang Shen, Institute of Soil Science, Chinese Academy of Sciences **Co-Conveners:** Zhihong Xu, Griffith University Ying Teng, Institute of Soil Science, Chinese Academy of Sciences Wenju Zhang, Institute of Agricultural Resources and Regional Planning CAAS Jiuyu Li, Institute of Soil Science, Chinese Academy of Sciences Xueqiang Zhao, Institute of Soil Science, Chinese Academy of Sciences Jing Che, Institute of Soil Science, Chinese Academy of Sciences Ming Liu, Institute of Soil Science, Chinese Academy of Sciences

Schedule	ID	Title	Presenter
13:15-13:28	35551	Rice Husk Biochar-based Fertilizers in Sustainable Management of Acid Soils	Nagabovanalli B. Prakash Department of Soil Science and Agricultural Chemistry, University of Agricultural Science, Bangalore, India
13:28-13:41	33454	Mechanisms for Plants to Adapt to Toxicities of Aluminum and Manganese in Acidic Soil/Root Interfaces	Renkou Xu Institute of Soil Science Chinese Academy of Sciences
13:41-13:54	32559	Diverse organic amendments mitigate soil acidification and enhance crop productivity in acid soil area over four decades	Wenju Zhang Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences
13:54-14:07	35010	Mechanisms of periphyton-induced carbonate precipitation and its role in regulating soil acidity in paddy soils	Jiuyu Li Institute of Soil Science, Chinese Academy of Sciences

Parallel Sessions

Monday, June 8 (Session 308001)			
14:07-14:20	35028	Synergistic Amelioration Effects of Dolomite-Based Composite Conditioner on Soil Acidification: Mechanisms and Long-Term Buffering Performance	Chunhui Zhou Research Group for Advanced Materials & Sustainable Catalysis (AMSC), State Key Laboratory of Green Chemical Synthesis and Conversion, College of Chemical Engineering, Zhejiang University of Technology, Hangzhou 310032, China; Anhui International Exchange and Cooperation Base, Qing Yang Institute for Industrial Minerals, Youhua, Qingyang, Anhui 242804, China.
14:20-14:33	31935	The contribution of natural and anthropogenic causes to soil acidification rates under different fertilization practices and site conditions in southern China	Xingjuan Zhu, State Key Laboratory of Nutrient Use and Management, Institute of Agricultural Resources and Environment, Shandong Academy of Agricultural Sciences
14:33-14:46	32534	Biochar Mitigates the Kinetic Release of Aluminum from Soil Driven by Exogenous Acid	Renyong Shi Institute of Soil Science, Chinese Academy of Sciences
14:46-14:59	34369	Spatio-temporal Variation Characteristics and Driving Mechanisms of Soil pH in Farmland of the Changbai Mountain-Liaodong Region	Runxue Bi Shenyang Agricuiturai University
14:59-15:12	32814	Co-application of lignosulfonate and calcium-magnesium phosphate fertilizer, an effective liming strategy for acidic purple soils in southwest China	Debo He Institute of Mountain Hazards and Environment. CAS

Parallel Sessions

Tuesday, June 9	Room: Convention Center, Nanjing 209
Session 308002	**Wetland Soils, Acid Sulfate Soils and Sulfidic Materials** **Convener:** Anton Boman, Geological Survey of Finland **Co-Conveners:** Vanessa Wong, Monash University Chaolei Yuan, Sun Yat-sen University

Schedule	ID	Title	Presenter
13:30-13:45	34972	Improved sampling and laboratory methods using chip-trays for assessment and classification of acid sulfate soils	Robert Fitzpatrick Acid Sulfate Soils Centre, Adelaide University, Urrbrae, South Australia, Australia
13:45-14:00	33055	Peat in Australia - Diversity, Values, Risks and the Universal Occurrence of Acid Sulfate Soils in South Australia	Christopher Auricht Auricht Projects and Adelaide University
14:00-14:15	33042	The Effects of Pyrite on Soil Organic Carbon Storage in a Temperate Wetland Coastal Acid Sulfate Soil	Vanessa Wong Monash University
14:15-14:30	31916	Differences in life history strategies of bacteria between paddy and upland soils and implications for carbon sequestration	Chaolei Yuan Sun Yat-sen University

Parallel Sessions

Monday, June 8 (Session 308002)			
14:30-14:45	35261	Iron oxyhydroxides, oxyhydroxysulfates and efflorescent sulfate salts as indicators of biogeochemical processes at low pH in acid sulfate weathering environments	Robert Fitzpatrick Acid Sulfate Soils Centre, Adelaide University, South Australia, Australia
14:45-15:00	34157	Neutralisation of Acid Sulfate Soils with Industrial Side Streams	Thomas Kronberg Åbo Akademi University
15:00-15:15	34262	Geophysical Methods for Mapping Acid Sulfate Soil Properties	Anton Boman Geological Survey of Finland (GTK), P.O. Box 97, FI-67101 Kokkola, Finland
15:15-15:30	31994	Cross-regional transfer learning to predict acid sulfate soils in Finland using Random Forest	Virginia Estévez Arcada University of Applied Sciences
15:30-15:45	32241	The Acid Sulfate Soil Distribution Mapping in The Buffer Area of Nusantara Capital City, Kalimantan, Indonesia	Wirastuti Widyatmanti Universitas Gadjah Mada
16:30-18:30	-	Acid Sulfate Soils Working Group Business Meeting	Anton Boman

Parallel Sessions

Monday, June 8	Room: Expo Center, Hall 8, 8201
Session 309001	**Forest and Grassland Soil Functions and Sustainable Utilization under Global Change** **Convener:** Qiwu Sun, Research Institute of Forestry Chinese Academy of Forestry **Co-Conveners:** Yunting Fang, Institute of Applied Ecology, Chinese Academy of Sciences Yongfu Li, Zhejiang A&F University Zhihong Xu, Griffith Universiy

Schedule	ID	Title	Presenter
13:15-13:30	31681	The regulation of soil microbial diversity and life- history strategies on ecosystem functions	Zhenghu Zhou Northeast Forestry University
13:30-13:45	35414	Tree functional diversity enhances forest carbon and nitrogen storage across gradients	Xinli Chen Zhejiang A&F University
13:45-14:00	33329	Forest methane sink under climate change	Xiaoqi Zhou East China Normal University
14:00-14:15	35580	Microbial intra- and extracellular phosphorus recycling in response to global imbalanced soil nutrient changes	Jie Chen Research Institute of Tropical Forestry, Chinese Academy of Forestry
14:15-14:30	34014	Phosphorus in (semi-)natural soils: concentration, stock, dynamics, and drivers	Enqing Hou South China Botanical Garden, Chinese Academy of Sciences
14:30-14:45	32098	Coupling and decoupling of soil carbon, nitrogen, phosphorus and potassium stocks along a 6000 km northeast-southwest temperature gradient in China	Qiqi Tan China Agricultural University
14:45-15:00	35481	Soil-plant silicon cycle and climate change	Zhihao Pang Beijing Forestry University
15:00-15:15	32054	Heatwaves increase greenhouse gas emissions from different ecosystems	Scott X Chang Department of Renewable Resources, University of Alberta

Parallel Sessions

Monday, June 8 (Session 309001)			
16:30-16:45	35430	Biochar mitigates the effects of nitrogen deposition on soil greenhouse gas emissions via microbial regulation in a subtropical forest	Yongfu Li Zhejiang A&F University
16:45-17:00	35524	Land-use change mediated associations among soil environmental factors, microbial networks, and soil multifunctionality: A case study of the Changchong River small watershed in Chaohu Lake	Lingyu Hou Research Institute of Forestry, Chinese Academy of Forestry
17:00-17:15	35202	Southern urban forest converted from orchard abandonment: a potentially important N2O source driven by warm-humid climate	Lifang Wu Tsinghua university
17:15-17:30	319B97	Why the Effects of Vegetation Restoration on Soil Properties May Be Overestimated: Evidence from 30 Years of Long-Term Monitoring on the Loess Plateau, China	Tonggang Zha College of Soil and Water Conservation, Beijing Forestry University
17:30-17:45	34960	Influence of Forest Stand Age on Soil Water Dynamics in Semi-Arid Forests of the Loess Plateau	Muhammad Waseem Rasheed Research center for Eco environmental sciences, CAS, China; University of Chinese Academy of Sciences, Beijing, 100049, China
17:45-18:00	34699	Study on the Influencing Mechanisms of Mercury Accumulation Characteristics in Grassland Soils of Guizhou Province Under the Context of Ecological Restoration	Yanmei Zhou GuizhouUniversity
18:00-18:15	34407	Grazing Modulates the Allelopathic Impact of an Invasive Shrub on Soil Seed Bank Diversity and Function: Implications for Grassland Soil Health	Qiqi Li Lanzhou University; Lanzhou University
18:15-18:30	34213	Effects of nitrogen deposition on plant community structure and niche characteristics in typical steppe	SiYuan Bao Inner Mongolia Agricultural University

Parallel Sessions

Thursday, June 11	Room: Expo Center, Hall 8, 8201
Session 309002	**Forest Soil Management: Processes, Challenges, and Sustainable Production**
	Convener: Wenfa Xiao, Distinguished Professor of Forest Ecology, Deputy Dean of the Chinese Academy of Forestry, Ecology and Nature Conservation Institute, Chinese Academy of Forestry **Co-Convener:** William R. Horwath, Distinguished Professor of Soil Biogeochemistry, Dept. of Land, Air and Water Resources, University of California, Davis

Schedule	ID	Title	Presenter
11:15-11:30	35996	Soil Carbon Sequestration in forest soils: Limits and Potential versus Potential	William Horwath Department of Land, Air and Water Resources, Universality of California, Davis, USA
11:30-11:45	35399	Cessation of nitrogen addition increased organic matter stability by decoupling carbon input and stabilization in a subtropical forest soil	Xinzhang Song Zhejiang A&F University
11:45-12:00	35404	The effects of N deposition on the decomposition of C rhizodeposits and its underlying microbial mechanism in Moso bamboo forest	Shi Man Zhejiang A&F University
12:00-12:15	31735	Aggregate-mediated mechanisms of soil carbon and greenhouse gas emission under green manure cover in citrus orchard	Lei Lei Ecology and Nature Conservation Institute, Chinese Academy of Forestry

Parallel Sessions

Thursday, June 11 (Session 309002)			
13:30-13:45	33540	Managing Forest Soil Carbon to Preserve Climate and Biodiversity	Lydie-Stella KOUTIKA Soil Care and Environmental Studies (SCES)
13:45-14:00	32065	Multi-trophic biodiversity regulates decomposition and mitigates drought effect	Junwei Luan International Centre for Bamboo and Rattan
14:00-14:15	31902	Sensitivity of biochar-root interaction on the subtropical forest increase of sink and reduction of emission	Xiaogai Ge; Benzhi Zhou Chinese Academy of Forestry (Research Institute of Subtropical Forestry
14:15-14:30	35364	Burn history and residue solubility influence the transformation of pine litter in forest soils	Andrew J. Curtright University of California, Davis
14:30-14:45	31689	Mechanisms of soil organic carbon accumulation under green manure cover in citrus orchard	Jiajia Zhang Ecology and Nature Conservation Institute, Chinese Academy of Forestry
14:45-15:00	35519	Compartmentalized Homeostasis Drives High Bamboo Forest Productivity Under Nutrient Imbalance	Zhikang Wang Zhejiang A&F University

Parallel Sessions

Thursday, June 11 (Session 309002)			
16:30-16:45	31688	Spatial Characteristics of Soil Organic Carbon in Forests of China	Wenfa Xiao Ecology and Nature Conservation Institute, Chinese Academy of Forestry
16:45-17:00	34442	Responses of selected soil physical properties to early stages of active ecological restoration in the Mistbelt forest of South Africa	Alen Manyevere Department of Agronomy. University of Fort Hare
17:00-17:15	31706	Fire-derived charcoal enhances soil ecological functions and recovery in subtropical forest plantations	Yuzhe Wang Fujian Agriculture and Forestry University
17:15-17:30	36505	Forest Development Determines the Compositions and Structures of Soil Invertebrate Communities in Reclaimed Coastal Lands	Lili Cao Nanjing Forestry University
17:30-17:45	34833	Resistance and Resilience of Soil Microbial Communities to Forest Degradation and Their Role in Carbon Sequestration in Dry Tropical Forests	Luis Merino Martín Departamento de Biología y Geología, Física y Química Inorgánica, Universidad Rey Juan Carlos (URJC), Móstoles, Spain.; Instituto de Investigación en Cambio Global (IICG-URJC), Universidad Rey Juan Carlos, Móstoles, Spain.
17:45-18:00	319B91	Geographic variations and multiple drivers of soil organic carbon stability in larch plantations	Haiyan Wang State Key Laboratory of Efficient Production of Forest Resources, Key Laboratory of Forest Cultivation and Protection, Ministry of Education, College of Forestry, Beijing Forestry University

Parallel Sessions

Tuesday, June 9	Room: Convention Center, Nanjing 208
Session 309004	**Soil Microbial Diversity and Functions in Carbon and Nitrogen Cycling in Response to Tree Diversity, Wildfires and Climate Change** **Convener:** Zhihong Xu, School of Environment and Science, Griffith University, Brisbane, Queensland 4111, Australia **Co-Conveners:** Zhiqun Huang, Fujian Normal University, China Chirs Johnson, Department of Civil & Environmental Engineering, Syracuse University, Syracuse, New York, USA

Schedule	ID	Title	Presenter
09:00-09:30	34595	Nitrogen enrichment weakens tree diversity effects on productivity	Zhiqun Huang Fujian Normal University
09:30-09:45	32386	Forest plant community and fire control on soil microbial diversity and functions related to C and N cycling and GHG fluxes	Castaldi Simona Department of Environmental, Biological and Pharmaceutical Science and Technologies, University of Campania Luigi Vanvitelli
09:45-10:00	33739	Global wildfire effects on soil bacteriome and recovery trajectories	Yuying Jiang Sun yat-sen University
10:00-10:15	33642	The Resilience to Climate Change and Human Activities of the Forest Ecosystems in Central Africa, South America, Southeast Asia and European Union	Lydie-Stella KOUTIKA Soil Care and Environmental Studies (SCES)

Parallel Sessions

Tuesday, June 9 (Session 309004)			
10:15-10:30	33341	Functional Sensitivity to Environmental Conditions Exceeds Community Composition in Forest Soils	Guoting Shen Helmholtz-Centre for Environmental Research - UFZ
10:30-10:45	35704	Shifts in soil microbial resource limitation along a natural gradient of ECM tree dominance in a subtropical montane forest	Qiuxiang Tian Wuhan Botanical Garden, Chinese Academy of Sciences
10:45-11:00	31905	Long-term throughfall exclusion decreased soil organic carbon components by higher soil CUE and lower microbial enzyme activities on Phyllostachys edulis	Xiaogai Ge Research Institute of Subtropical Forestry, Chinese Academy of Forestry
11:15-11:30	35440	Effects of dead lying trunks of deciduous and coniferous trees on soil microbial communities in old-growth broadleaved forests after windthrows	Kristina Ivashchenko IMPB RAS, branch of the Keldysh IAM RAS
11:30-11:45	34692	Soil depth outweighs environmental change in shaping microbial diversity-multifunctionality relationships	Kaikai Min Institute of Applied Ecology, Chinese Academy of Sciences
11:45-12:00	34649	Microbial Recolonization Dynamics and Ecological Succession in Post-Fire Soils	Pedro Mondaca Institute of Ecology & Biodiversity, Chile; Facultad de Medicina Veterinaria y Agronomía, Universidad de Las Américas, Santiago, Chile

Parallel Sessions

Thursday, June 11	Room: Convention Center, Nanjing 208
Session 309005	**Soil Organic Matter Dynamics and Nutrient Cycling in Global Forests under Climate Change** **Convener:** Zhihong Xu, School of Environment and Science, Griffith University, Brisbane, Queensland 4111, Australia **Co-Conveners:** Scott Chang, University of Alberta Chirs Johnson, Department of Civil & Environmental Engineering, Syracuse University, Syracuse, New York, USA

Schedule	ID	Title	Presenter
11:15-11:45	34023	Nature-based solutions for mitigating climate change: from rangelands to forests	Scott X Chang Department of Renewable Resources, University of Alberta
11:45-12:00	33892	Resolving Organic-Inorganic Carbon Overlap: Comparing Soil Organic Carbon (SOC) Measurement Methods to Improve Accuracy in Calcareous Soils	Nastaran Chalabianlou University of Guelph
12:00-12:15	35482	Nitrogen deposition enhances microbial carbon pump-mediated soil organic carbon formation and stabilization	Huihui Han Northwest A&F University
12:15-12:30	35331	Optical Properties of Dissolved Organic Matter of Albic Retisols (Middle Taiga, Komi Republic, Russia)	Sofia A. Ogorodniaia Federal Research Centre V.V. Dokuchaev Soil Science Institute, Moscow, Russia
13:30-13:45	34829	Global-Scale Land Use Change Will Become a Huge Potential Carbon “Source” in the Future: Mechanism Analysis and Spatial Projections to 2100	Youbin Liu Central South University of Forestry and Technology
13:45-14:00	33630	Icelandic old birch woodlands have valuable soil carbon reserves	Solveig Sanchez Land and Forest, Iceland
14:00-14:15	34783	Deciphering the key role of core microbe in the decomposition of eucalyptus harvest residue	Lijun Chen Central South University of Forestry and Technology

Parallel Sessions

Thursday, June 11 (Session 309005)			
14:15-14:30	34372	Depth-resolved controls on phosphorus bioavailability across forest soil profiles in Northeast China	Yaqi Zhang Northeast Forestry University
14:30-14:45	32577	Impacts of Mistletoe Infection on Soil Hydrology and Chemistry in Abies and Pinus Ecosystems	Lizardo Reyna-Bowen Faculty of Forestry, University of Agriculture in Kraków
14:45-15:00	33925	Rubber-Based Agroforestry Ecosystems Enhance Soil Enzyme Activity but Exacerbate Microbial Nutrient Limitations	Wenxian Xu Rubber Research Institute, Chinese Academy of Tropical Agricultural Sciences; Yunnan Institute of Tropical Crops
15:00-15:15	35804	Contrasting effects of roots and arbuscular mycorrhizal fungi on soil carbon storage reveal divergent pathways in forest carbon cycling	Xin Guan Nanjing Forestry University
16:30-16:45	32948	Subsequent Fire Alters Jack Pine Pyrogenic Organic Matter Persistence	Mengmeng Luo Department of Soil and Environmental Sciences, University of Wisconsin-Madison
16:45-17:00	33671	Ecological Stoichiometry of Plant-Soil Systems in Pinus sylvestris var. mongolica Plantations in the Semi-Arid Region of Northeast China	Yi Yang Shenyang Agricultural University
17:00-17:15	34872	Soil Organic Carbon Stocks and Controlling Factors in Planted and Natural Mangrove Forests Developed on Acid Sulfate Soils	Nghia Van Nguyen Faculty of Technology, Dong Nai Technology University, Bien Hoa City, Vietnam
17:15-17:30	33022	The decomposition and stabilization of microbial residues in forest soil	Chao Wang Institute of Applied Ecology, Chinese Academy of Sciences
17:30-17:45	35308	Elevated CO2 levels promotes the global forest phosphorus cycle	Yijin Lu Zhejiang University

Parallel Sessions

Tuesday, June 9	Room: Convention Center, Nanjing 209
Session 310002	**Soil Health-Water-GHG Nexus for Sustainable Crop Production in Paddy Soils**
	Convener: Mizuhiko NISHIDA, Chair, Paddy Soils Working Group, Tohoku University, Japan **Co-Convener:** Kazumichi FUJII, Fukushima Institute for Research, Education and Innovation, Japan

Schedule	ID	Title	Presenter
09:00-09:15	33271	Persistence and controls of soil organic carbon in paddy fields across Asian countries: a soil physicochemical fractionation approach	Junta YANAI Kyoto Prefectural University
09:15-09:30	33431	Decades of intensive rice cropping alter tropical soil fertility	Kazuki Saito International Rice Research Institute (IRRI)
09:30-09:45	32747	The Effects of Paddy-Upland Rotation on the Six-Year Nitrogen Dynamics of 15N-labeled Cow Manure Compost	Sota Kojima Tohoku University
09:45-10:00	34816	Feeding the world while mitigating climate change: a global meta-synthesis of agronomic pathways for low-emission rice	Jean-Martial Johnson International Rice Research Institute (IRRI)
10:00-10:15	31716	Effects of Alternate Wetting and Drying (AWD) on Driving Factors Controlling CH_4 Emissions from Rice Paddy Soils	Lucia Crosetto Department of Agricultural, Forest and Food Sciences, University of Torino

Parallel Sessions

Tuesday, June 9 (Session 310002)			
10:15-10:30	35625	Pedogenesis Shapes the Basis of Sustainability of Paddy Soils	Ganlin Zhang Institute of Soil Science, Chinese Academy of Sciences
10:30-10:45	35001	Alternate Irrigation Reduces Methane Emissions in Malaysian Rice Paddies	Muhammad Firdaus Sulaiman Faculty of Agriculture, Universiti Putra Malaysia; Institute of Tropical Agriculture and Food Security, Universiti Putra Malaysia
10:45-11:00	33955	Dry direct seeding rice and water saving irrigation reduce root exudation of organic acids and methane emission from paddy soils	Kazumichi Fujii Fukushima institute for Research, Education and Innovation
11:15-11:30	34741	Transplanting Date Potentially Modulates Post-Season Methane Emissions via Residual Root Carbon Inputs in a Mono-Rice Paddy Field	Sang Yoon Kim Department of Agricultural Chemistry & Interdisciplinary Program in IT-Bio Convergence System, Sunchon National University, Suncheon 57922, Republic of Korea; Department of Agricultural Life Sciences, Sunchon National University, Suncheon 57922, Republic of Korea

Parallel Sessions

Tuesday, June 9 (Session 310002)			
11:30-11:45	32053	Impact of Rising Tropospheric Ozone Concentrations on Rhizospheric Carbon Pools vis-à-vis Methane Emission in Tropical Rice Soil	Ziom Adam Michael Department of Soil Science and Agricultural Chemistry, Institute of Agricultural Sciences, Faculty of Agriculture, Banaras Hindu University; Department of Soil Science and Agricultural Chemistry, College of Agriculture, Odisha University of Agriculture and Technology; Division of Crop Production, ICAR-Central Rice Research Institute
11:45-12:00	35220	Soil carbon budgets under three different fertilizer management in paddy fields, Japan.	Chie Hayakawa Graduate School of Regional Development and Creativity Utsunomiya University, Utsunomiya, Japan; School of Agriculture, Utsunomiya University, Utsunomiya, Japan
12:00-12:15	31594	Effect of Iron Materials on Methane Emission from Paddy Field	Kazuuki INUBUSHI Tokyo University of Agriculture
12:15-12:30	35409	Hybrid machine-learning and process-based regional crop modelling to improve rice production strategies in data-limited conditions: a case study of Lao PDR	Qiang Li State Key Laboratory of Efficient Utilization of Arid and Semi-arid Arable Land in Northern China, Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences, Beijing 100081, China; School of Agriculture, Food and Ecosystem Sciences, The University of Melbourne, Victoria 3010, Australia; National Agriculture and Forestry Research Institute, Ministry of Agriculture and Environment, Lao PDR

Parallel Sessions

Tuesday, June 9	Room: Expo Center, Hall 6, 6201
Session 310004	**Understanding Paddy Soil Microbiomes for Food and Climate Security** **Convener:** Yahai Lu, Peking University **Co-Conveners:** ASAKAWA Susumu, Nagoya University, Japan NISHIDA Mizuhiko, Chair, Paddy Soils Working Group, IUSS. Tohoku University, Japan MURASE Jun, Nagoya University, Japan BOWATTE Saman, AgResearch, Grasslands Research Centre, New Zealand WANG Guanghua, Northeast Institute of Geography and Agroecology, CAS

Schedule	ID	Title	Presenter
13:30-13:50	34860	Microbial background for mitigating methane emission from rice fields	Ralf Conrad Max-Planck-Institute for Terrestrial Microbiology, Department of Biogeochemisty, 35043 Marburg, Germany
13:50-14:05	33675	Isolation, characterization and identification of culturable methane-oxidizing bacteria inhabiting paddy field ecosystem	Susumu Asakawa Graduate School of Bioagricultural Sciences, Nagoya University
14:05-14:20	34619	Impact of microbial interactions on aerobic methanotrophs and methane oxidation activity in soils	Yong Li Zhejiang Provincial Key Laboratory of Agricultural Resources and Environment, Zhejiang University, Hangzhou 310058, China
14:20-14:35	34713	From Genes to Gas: Dynamics of Active Methanogenic Food Webs in Rice Paddies	Jingjing Peng College of Resources and Environmental Sciences, State Key Laboratory of Nutrient Use and Management; Key Laboratory of Plant-Soil Interactions; National Academy of Agricultural Green Development, China Agricultural University, Beijing, China

Parallel Sessions

Tuesday, June 9 (Session 310004)			
14:35-14:50	34957	Effects of light on microbial community in the surface soil of a paddy field	Jun Murase Nagoya University
14:50-15:05	34968	Beyond Nutrients: Minerals as Evolutionary Architects and Signaling Hubs in Soil Microbial Communities	Jianchao Zhang Tianjin University
15:05-15:20	32788	Response of Rhizosphere Sulfur Utilization Microbiome to Rice Domestication	Changji Wang Netherlands Institute of Ecology (NIOO-KNAW); Utrecht University
15:20-15:30	33503	Rare earth elements reshape the methanotrophs community to enhance the CH_4 oxidation in paddy fields	Yalin Yin Sun Yat-sen university
16:30-16:45	33954	Coordinated Action of Firmicutes and Bacteroidetes in Rice Straw Decomposition	Yahai Lu Peking University
16:45-17:00	36509	Rice root iron plaque as a mediator to enhance biological nitrogen fixation in paddy soil	Rong Jia Key Laboratory of Land Resources Evaluation and Monitoring in Southwest China, Ministry of Education, Sichuan Normal University, Chengdu, Sichuan Province 610066, PR China; Fujian Provincial Key Laboratory of Soil Environmental Health and Regulation, College of Resources and Environment, Fujian Agriculture and Forestry University, Fuzhou Fujian Province 350002, PR China; Engineering Research Center for the Development of Farmland Ecosystem Service Functions, Sichuan Province, PR China
17:00-17:15	32569	Domesticated rice alters the rhizosphere microbiome, reducing nitrogen fixation and increasing nitrous oxide emissions	Jingjing Chang Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences; Netherlands Institute of Ecology
17:15-17:30	35755	Nitrous oxide acts as an alternative electron acceptor for microbial methane oxidation in oxygen-deficient microcosms	Fengqin Liu Henan Agricultural University
17:30-17:45	33957	Irrigation management drives the niche differentiation and metabolic versatility of ammonia-oxidizing archaea in paddy soils	Xue Zhou Hohai University

Parallel Sessions

Monday, June 8	Room: Expo Center, Hall 6, 6201
Session 310005	**Multiple Paths to Soil Health: From Technology to Policy, From Paddy Fields to the Globe** **Conveners:** Cheng-Hsien Lin, Department of Soil and Environmental Sciences, National Chung Hsing University Lillian Øygarden, Chair of commission 3.2. Soil and Water Conservation Brajesh Singh, Chair of FAO Intergovernmental Technical Panel on Soils (ITPS), Hawkesbury Institute for the Environment, Western Sydney University, Australia **Co-Conveners:** Hung-Yu Lai, Department of Soil and Environmental Sciences, National Chung Hsing University Pei-Tzu Kao, Department of Soil and Environmental Sciences, National Chung Hsing University Dorota Dec. Vice chair of commission 3.2 Soil and water conservation Felipe A. Zuñiga U., Universidad Austral de Chile, Instituto de Bosques y Sociedad Xinhua Peng, Chair of FAO Intergovernmental Technical Panel on Soils (ITPS), Vice-chair of FAO Intergovernmental Technical Panel on Soils (ITPS), Institute of Agricultural Resources and Regional Planning, CAAS, P.C. China Tingting Chang, Hohai Unviersty

Schedule	ID	Title	Presenter
13:15-13:18	-	Opening remarks	-
13:18-13:31	33403	Changes in farm business model: Combined effects on soil health, ecosystem services, farm profit, and associated needs for incentives	Youssef Wang-Touri Wageningen University & Research
13:31-13:44	34765	Triangular approach (SQ-GQ-GY) based soil health assessment - A novel mechanism for ranking Resilient Rice Ecologies of eastern India	Debarati Bhaduri ICAR-Central Rice Research Institute, Cuttack, India

Parallel Sessions

Monday, June 8 (Session 310005)			
13:44-13:57	34776	Enhancing soil health through organic amendments in an acid soil	Tingting Chang Hohai University
13:57-14:10	32336	Assessing Human Land Use Impacts on Soil Properties and Genesis in the Great Plains Region of the United States	Elizabeth M. Eroshenko University of Nebraska-Lincoln
14:10-14:23	32670	Reducing the Global Warming Potential of Rice Farming: Why Biochar Works Better than Compost	Ronley C. Canatoy Soil Science Department, Central Mindanao University
14:23-14:36	32644	Methane Mitigation and Arsenic Immobilization in Paddy Soils by Sulfur-Containing Amendments Applied to Stimulate Sulfate-Reducing Bacteria	Han Na Kim Department of Environmental and Biological Chemistry, Chungbuk National University; Global Centre for Environmental Remediation (GCER), The University of Newcastle
14:36-14:49	33948	Managing water and litter inputs to safeguard wetland soil health: coupled C-N-P responses to drying-rewetting in River Murray floodplain soils	Rui Yan Uinversity of Adelaide
14:49-15:02	35959	Microbial innovation for nitrogen management in paddy soil: A success story of Endophytic Azotobacter chroococuum MCC 3432 (NRRI-EndoN)	Upendra Kumar Senior Scientist, ICAR-Central Rice Research Institute, Cuttack, India
15:02-15:15	35884	Agriculture as a strategy to improve food - water - energy nexus in Atlantic Forest, Brazil	Ana Paula Dias Turetta Brazilian Agriculture Research Corporation - Embrapa Soils, Rio de Janeiro, RJ, Brazil

Parallel Sessions

Monday, June 8 (Session 310005)			
16:30-16:45	34387	Integrated remediation strategies by health risk assessment of brown rice approaching technology for As, Cd, Cr, Ni, Cu and Zn-contaminated paddy soils in Taiwan	Zueng-Sang Chen Department of Agricultural Chemistry, National Taiwan University, Taipei, Republic of China.
16:45-17:00	35553	Soil ridging combined with soil amendments regulates the arsenic-cadmium related geochemical cycles and mitigate its accumulation in rice	Ting Zhang Institute of Environment and Sustainable Development in Agriculture, Chinese Academy of Agricultural Sciences
17:00-17:15	36016	Effect of organic materials and sulfate addition on cadmium bioavailability and accumulation of rice in cadmium sulfide nanoparticles- and cadmium chloride-treated soil	Yanhua Qiu Institute of Plant Nutrition, Resources and Environment, Beijing Academy of Agriculture and Forestry Sciences, Beijing 100081,China
17:15-17:30	36403	Synergistic modulation of Zinc Bioavailability in Alluvial paddy soil: Integrating Zn-solubilizing microbial consortia, cow dung, and mineral Zinc fertilizers for sustainable Rice production in India	Jaya Prajapati Department of Soil Science& Agricultural Chemistry, College of Agriculture, Central Agricultural University, Imphal, Manipur, India-795004
17:30-17:45	32566	Exploring the environmental feasibility of montmorillonite integration in the electrochemical oxidation of acid mine drainage	Madinai Abulimiti Nanjing University
17:45-18:00	35775	Water quality and sediment analysis at selected locations of Imo River, Imo State, In Southeastern Nigeria.	Ubah, Venatius Chiamaka Steve Department Of Biology, Federal University Of Technology Owerri, Imo State, Nigeria.
18:00-18:15	35603	Impacts of Land Uses on Soil Quality in Western Patagonia	Felipe Zúñiga Ugalde Instituto de Bosques y Sociedad, Universidad Austral de Chile, Valdivia, Chile
18:15-18:30	-	General discussion	-

Parallel Sessions

Friday, June 12	Room: Expo Center, Hall 8, 8201
Session 401001	**Peatlands in a Changing World** **Convener:** Claudio Zaccone, University of Verona, Italy **Co-Conveners:** Kunshan Bao, School of Geography, South China Normal University, China Angela Gallego-Sala, University of Exeter, UK

Schedule	ID	Title	Presenter
09:00-09:15	32398	Carbon Storage Capacity of Peat Soils from High Bogs and Low Bogs	Wolfgang Burghardt Soil Technology, Faculty of Biology, University Duisburg-Essen
09:15-09:30	34253	Depth controls on CO2 emissions from drained agricultural peat soils and implications for national greenhouse gas inventories	Lars Elsgaard Department of Agroecology, Aarhus University, Tjele, Denmark
09:30-09:45	36552	Warming Amplifies Iron-Mediated Carbon Loss from Peatlands: A Positive Feedback Modulated By Soil Properties	Chunmei Chen Tianjin University
09:45-10:00	33148	Nutrient cycling in tropical peatland coconut agroecosystems integrating natural weeds as cover crops for sustainable management	Nurul Ihsan Fawzi Department of Soil Science and Land Resources, Faculty of Agriculture, IPB University
10:00-10:15	35900	Soil nitrogen loss and altered plant nitrogen uptake following alpine peatland degradation: insights from nitrogen isotopes	Xiaodong Zhang Institute of Ecological Conservation and Restoration, Chinese Academy of Forestry
10:15-10:30	34703	Breaking metabolomics limits for a molecular to pathway multidimensional analysis of metabolism alpine peatlands soil dissolved organic carbon	Shuangchao Wang Sichuan University
10:30-10:45	32857	Human activities overrode natural climate controls on mercury deposition in Southern China during the late Holocene	Shuming Li South China Normal University
10:45-11:00	33136	The secret and fascinating world of the free-floating peat island of Posta Fibreno	Claudio Zaccone Department of Biotechnology, University of Verona
11:00-11:15	319B47	Application of dredged soil resource utilization in Mangrove habitat improvement	Li Yaohua Technology R&D Center, CCCC Guangzhou Water Transport Engineering Design and Research Institute Co., Ltd.

Parallel Sessions

Tuesday, June 9	Room: Expo Center, Hall 5, 5202
Session 401002	**Soil Food Web Structure and Function under Global Change** **Convener:** Manqiang Liu, Lanzhou University **Co-Conveners:** Joann Whalen, McGill University Shenglei Fu, Henan University

Schedule	ID	Title	Presenter
13:30-13:50	35638	Four decades of Soil Ecology: the good, the bad and the missing	Shuijin Hu Nanjing Agricultural University
13:50-14:05	35942	Aggregate-Scale Microbial Communities: Spatial Heterogeneity, Potential food-webs & The Effect of Tillage	Arthur Taylor University of Edinburgh
14:05-14:20	33391	Proteobacteria as keystone bridges in the micro-food web: a new strategy for biocontrol design	Ting Liu Nanjing Agricultural University
14:20-14:35	33772	Greater trophic diversity of soil animal communities under agricultural land use and tropical climate	Zheng Zhou University of Hohenheim
14:35-14:50	34219	Size-structured Energy Channeling in Soil Food Webs across Ecto- and Arbuscular Mycorrhiza-dominated Deciduous Forests	Ajuan Zhang Senckenberg Museum of Natural History Görlitz, Department of Soil Zoology, Am Museum 1, 02826 Görlitz, Germany
14:50-15:05	32451	Coordinated plant-nematode ecological strategies shape soil carbon cycling	Chongzhe Zhang Lanzhou University
15:05-15:20	34665	Pesticide contamination in agricultural soils in Shanghai: residual characteristics and ecological risks to soil biota	Muyuan Wang Shanghai Jiao Tong University

Parallel Sessions

Tuesday, June 9 (Session 401002)			
16:30-16:50	32205	Harnessing the soil food web for sustainable ecosystems: Current evidence and future perspectives	Uffe N Nielsen Hawkesbury Institute for the Environment, Western Sydney University
16:50-17:05	33785	Leaving deadwood in canopy gap mitigates the decline of soil multifunctioning	Yan Zhang University of Göttingen
17:05-17:20	34066	Legume Intercropping Reshapes Aggregate-Scale Soil Micro-Food Webs and Nutrient Regulation in Tropical Rubber Plantations	Shujie Chen Xishuangbanna Tropical Botanical Garden
17:20-17:35	33556	Impacts of chemical free turfgrass renovation on soil arthropod and nematode communities	Zhiqiang Cheng University of Hawaii at Manoa
17:35-17:50	32964	Mechanism of soil fauna on soil microbial necromass carbon accumulation in a subtropical forest under nitrogen addition	Shixing Zhou Sichuan Agricultural University
17:50-18:05	32735	Effects of livestock grazing intensity on ground-dwelling arthropod communities in a desert steppe in Inner Mongolia	Haishan De Inner Mongolia Agricultural University
18:05-18:20	34571	Drivers and Mechanisms of Biological Homogenization of Soil Protists in Human Land-Use Systems	Zhi-Peng Li Institute of Urban Environment, Chinese Academy of Sciences; CAS Haixi Industrial Technology Innovation Center in Beilun; University of Chinese Academy of Sciences
18:20-18:35	34601	Trophic interactions regulate the effects of long-term nitrogen enrichment on soil organic carbon	Wen Xing Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences

Parallel Sessions

Friday, June 12	Room: Convention Center, Nanjing 403B
Session 401003	**Unveiling the Hidden World: Biodiversity and Ecological Function of Soil Fauna** **Convener:** Yuji Jiang, Fujian Agriculture and Forestry University **Co-Convener:** Francisco Dini-Andreote, The Pennsylvania State University

Schedule	ID	Title	Presenter
11:15-11:30	35684	Stage-specific microbial dynamics underpin ecosystem restoration on tropical coral islands	Wenjia Wu Guangdong Provincial Key Laboratory of Applied Botany, South China Botanical Garden; Key Laboratory of National Forestry and Grassland Administration on Plant Conservation and Utilization in Southern China, South China Botanical Garden, Chinese Academy of Sciences; Guangdong Heshan National Observation and Research Station for Forest Ecosystem, South China Botanical Garden, Chinese Academy of Sciences
11:30-11:45	32354	Investigating identification techniques and sample sizes effects on soil nematode community assessment	Lu Wang Helmholtz Centre for Environmental Research - UFZ; Leipzig University; German Centre for Integrative Biodiversity Research (iDiv) Halle-Jena-Leipzig
11:45-12:00	34617	Grassland management and time jointly shape the gut microbiome of soil collembolan Folsomia candida: A laboratory study	Meijun Sheng Inner Mongolia Agricultural University
12:00-12:15	36535	Ecotoxicity of Combined Thallium and Polylactic Acid Microplastics Pollution on the Functional Traits of Folsomia candida	Yuying Chen Guangzhou University; Rural Non-Point Source Pollution Comprehensive Management Technology Center of Guangdong Province

Thursday, June 11 Friday, June 12	Room: Convention Center, Nanjing 201
Session 402001	**Conservation and Restoration of Black Soils in Agro-Ecosystems** **Convener:** Xinhua Peng, Institute of Agricultural Resources and Regional Planning, CAAS, China **Co-Conveners:** Ole Wendroth, Department of Plant & Soil Science, University of Kentucky, UAS Zhongbin Zhang, Institute of Agricultural Resources and Regional Planning, CAAS, China Yanru Wen, Institute of Agricultural Resources and Regional Planning, CAAS, China

Schedule	ID	Title	Presenter
Thursday, June 11			
13:30-13:45	34308	Bio-tillage: A new perspective for sustainable agriculture	Zhongbin Zhang Institute of Agricultural Resources and Regional Planning of the Chinese Academy of Agricultural Sciences
13:45-13:58	35820	Long-term no-tillage farming mitigates waterlogging during extreme rainfall events in black soil region of NE China	Weida Gao China Agricultural University
13:58-14:11	35814	Short-term effects of overwintering on porosity of the compacted topsoil due to harvest traffic in Northeast China	Shijie Qin Hunan Institute of Agricultural Soil and Eco-Environment Institute
14:11-14:24	31632	Strip tillage combines the characteristics of conventional tillage and no-tillage in terms of soil macropore structure and hydrothermal conditions	Yongqi Qian Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences

Parallel Sessions

Thursday, June 11 (Session 402001)			
14:24-14:37	34461	Carbon-rich African dark earths have lower carbon footprint than adjacent land use types	Emmanuel Baidoo Kwame Nkrumah University of Science and Technology, Ghana
14:37-14:50	32804	Long-Term No-tillage Retains Intact Biopores in the Topsoil Compared to Conventional Tillage Based on the Soil Profile Study	Jiao Yan China Agricultural University
14:50-15:03	36360	Divergent Pathways of Soil Pore Structural Recovery under No-Till across a Semi-Arid to Semi-Humid Climatic Gradient	Wei Han, Jing Tan, Yanli Yi Shenyang Agricultural University
15:03-15:16	32215	Effects of Furrow Straw Mulch on Soil Erosion and Organic Carbon Redistribution in Soil Aggregates at Sloping Farmland	Libo Ye Jilin Agricultural University
15:16-15:29	31947	Microbial-Mediated Mechanisms Underlying Soil Fertility Stability in the Northeast Black Soil Region of China	Mengmeng Wang Shenyang Agricultural University
16:30-16:45	32786	Straw return combined with fertility enhances soil organic carbon and soil aggregate formation in Mollisol soils	Fenli Zheng Northwest A & F University
16:45-16:58	31760	Spatial Patterns of Ephemeral Gullies and Their Impacts on Farmland and Crop production in the Black Soil Region of Northeast China	Chunmei Wang Northwest University
16:58-17:11	31622	Gully Growth Rates in Northeast China	Yanru Wen The Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences

Parallel Sessions

Thursday, June 11 (Session 402001)			
17:11-17:24	32727	Integrated Assessment of Slope Erosion in the Mollisol Region of Northeast China Using ^{137}Cs Tracing and Improved RUSLE2 model	Yingli Shen the Research Center of Soil and Water Conservation and Ecological Environment, Chinese Academy of Sciences and Ministry of Education
17:24-17:37	36525	Coupling effects of freeze-thaw action and thawed soil depth on snowmelt erosion under near-surface hydrologic conditions in the Mollisol region of Northeast China	Bin Wang Beijing Forestry University
17:37-17:50	31951	Black Soil Degradation in Northeast China and its Driving Factors	Yili Meng Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences
17:50-18:03	32713	Effects of incorporated straw length on runoff and soil loss from black soil under simulated heavy rainfall	Yang Yang Beijing Normal University
18:03-18:16	32372	Benchmark and Near-Benchmark Chernozems: Assessing Human-Induced Transformation and Pedodiversity for Black Soils Conservation	Smirnova Maria Faculty of Geography, Lomonosov Moscow State University
18:16-18:29	33243	Soil Erosion Processes and Dynamic Mechanisms under Soil Compaction and Freeze-Thaw Cycles in the Black Soil Region of Northeast China	Renming Ma Shenyang Agricultural University

Parallel Sessions

Friday, June 12 (Session 402001)			
09:00-09:15	32439	Organic carbon loss process of black soil during cultivation	Weixin DING Institute of Soil Science, Chinese Academy of Sciences
09:15-09:30	34082	Mechanistic Insights into Cover Crops and Straw Incorporation: Root Traits, Soil Properties and Carbon Controls on Erosion Resistance across Degradation Gradients in Mollisols	Miaomiao Wang Northeast Forestry University
09:30-09:45	31968	Spatial heterogeneity of soil C-N-P stoichiometry and its controlling factors in agricultural soils across the Songnen Plain, Northeast China	Shihan Qin Shenyang Agricultural University
09:45-10:00	35290	Thermal Stability of Soil Organic Matter in Farmland Chernozems	Antonina Grigorova Laboratory of Carbon Monitoring of Terrestrial Ecosystems, Institute of Physicochemical and Biological Problems in Soil Science, the Russian Academy of Sciences, Pushchino, Russia
10:00-10:15	33139	The overlooked plant litter in the long-term biodiversity experiments	Wei-Ping Zhang China Agricultural University
10:15-10:30	34077	Multi-platform monitoring method for the quality of Black soils cropland and site specific application	Huanjun Liu Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
10:30-10:45	32084	Multi-temporal monitoring of crop residue cover for large-scale classification of tillage practices: linking deep learning of UAV images with satellite-based spectral modelling	Pu Shi Jilin University; UC Louavin
10:45-11:00	32947	A Comprehensive Framework for Assessing Land Degradation Neutrality in Northeast China's Black Soil Region: Multi-Source Fusion, Driver Analysis, and Scenario Prediction	Yuanfang Huang and Wentao Zhou China Agricultural University, College of Land Science and Technology

Parallel Sessions

Friday, June 12	Room: Expo Center, Hall 5, 5203
Session 402004	**Sustainable Management and Restoration of Black Soils: Global Experiences and Actions** **Convener:** Yuxin Tong, Global Soil Partnership, FAO **Co-Convener:** Zhongjun Jia, Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences

Schedule	ID	Title	Presenter
09:00-09:15	319B88	Intensification tradeoff for crop yield under different tillage scenarios towards agricultural sustainability of Black Soils	Jingying Fu Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences
09:15-09:30	32777	Assessment of the health of tropical black soils in the context of intensive agriculture: the case of the Vertisols of Tcheboa , Northern Cameroon	Ndzana Georges Martial Department of Soil Sciences, Faculty of Agronomy and Agricultural Sciences, University of Dschang
09:30-09:45	31572	Sambaquis as Records of Soil Management by Original Populations in the Holocene	Anjos, L.H.C. dos Department of Soils, Institute of Agronomy, Federal Rural University of Rio de Janeiro, UFRRJ
09:45-10:00	35828	Assessment of water resources carrying capacity and identification of obstacle factors in the Songnen Plain based on a combined weighting-matter-element extension model	Lei Wang Beijing Academy of Agriculture and Forestry Sciences
10:00-10:15	31776	Degradation severity shifts environmental controls and vegetation effects on soil respiration in restored Mollisols	Jia Yang School of Forestry, Northeast Forestry University
10:15-10:30	32009	Comparative Study on Conservation and Utilization of Black Soils in China and Argentina	Wenyou Hu Institute of Soil Science, Chinese Academy of Sciences

Parallel Sessions

Friday, June 12 (Session 402004)			
11:15-11:30	32041	DSS for Sustainable Management and Conservation of Black Soils in Russia	Ivan I. Vasenev Ecology Department, Russian State Agrarian University-Moscow Timiryazev Agricultural Academy
11:30-11:45	32175	Status of Black Soils in Rio de Janeiro: a legacy of mismanagement and recommended practices to reclaim their potential	João Pedro Coumendouros Scott Federal Rural University of Rio de Janeiro - UFRRJ
11:45-12:00	36185	Uncovering the Biophysical Mitigation Potential of Off-Season Croplands across Global Black Soil Regions	Yifeng Cui Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences
12:00-12:15	34266	Soil-landscape Modeling on Experimental Plots: RECSOIL on Black Soils in Central Russia	A. Sorokin Department of Soil Science, Lomonosov Moscow State University, Moscow, 119991 Russia
12:15-12:30	33782	Depth-dependent responses of soil microbial communities to subsoil tillage with straw enhance soil quality and crop yield	Xin Xu Shenyang Institute of Applied Ecology, Chinese Academy of Sciences

Parallel Sessions

Monday, June 8	Room: Expo Center, Hall 5, 5201
Session 402005	**Soil Security and Policy: Foundations for a Sustainable Future** **Convener:** Alex McBratney, University of Sydney, Australia **Co-Conveners:** Cristine Morgan, Soil Health Institute, USA Jae Yang, Kangwon University, South Korea Yong-Guan Zhu, Research Center for Eco-environmental Sciences, Chinese Academy of Sciences, China

Schedule	ID	Title	Presenter
13:15-13:30	34920	Advocating for Soil Security: or “First Catch Your Hare”	Penelope Wensley Global Soil Security Think Tank
13:30-13:45	32209	The Global Pedogenon Map: combining and Spatialising the Factors of Soil Formation	Nicolas Francos Sydney Institute of Agriculture & School of Life & Environmental Sciences, The University of Sydney
13:45-14:00	33091	European Union advances in soil protection with the Soil Monitoring Law, the Mission Soil and the Carbon farming	Panos Panagos European Commission - Joint Research Centre
14:00-14:15	31838	A Pedogenon Approach to Declining Soil Districts across Europe	Quentin Styc The University of Sydney
14:15-14:30	35299	Development of Canadian Soil Strategy	Alan Kruszel Soil Conservation Council of Canada

Parallel Sessions

Monday, June 8 (Session 402005)			
14:30-14:45	33070	Components of a national soil security strategy for sustainable soil use and management	Amin Sharififar the University of Sydney
14:45-15:00	31830	Implementing the Soil Security Framework to Assess National Soil Governance: The Case of France	Julie Celia Itey IUCN WCEL SoilSAL SG
15:00-15:15	31892	Quantifying Soil Security under Climate Change: Integrating Digital Soil Mapping and the Soil Security Assessment Framework	Thilini Jayasekara School of Life and Environmental Sciences, The University of Sydney
16:30-16:45	34864	Soil Genotype and Cultural Diversity in Jeju Island, Korea: Linking Soil Security with Societal Heritage	Jae Yang Department of Biological Environment, Kangwon National University
16:45-17:00	34540	Connecting Soils and Consumers - The Regulation of Undefined Food Label Agricultural Sustainability Claims in Australia	Christopher Wilmot PhD Candidate, (Faculty of Business, Justice and Behavioural Science, Charles Sturt University, Bathurst, Australia, the Soil CRC Newcastle Australia and the University of Newcastle Australia)
17:00-17:15	32155	Legislation in Australia working for soil security (LAWSS)	Julio C. Pachon Maldonado School of Life and Environmental Sciences, The University of Sydney
17:15-17:30	32208	Towards a Global Convention to Secure Soil	Wartini Ng School of Life and Environmental Sciences, The University of Sydney, NSW 2015, Australia,Aroura, Soil Security Think Tank, Secretariat
17:30-18:30	-	Panel Discussion	Alex McBratney, Jae Yang, Cristine Morgan (facilitators)

Parallel Sessions

Tuesday, June 9	Room: Expo Center, Hall 7, 7203
Session 402006	**Soil, Agriculture, and Human Futures: From Cold Frontiers to Global Challenges** **Conveners:** Chunwu Zhu, Institute of Soil Science, Chinese Academy of Sciences, China Giuseppe Corti, CREA - Council for Agricultural Research and Economics, Centre of Agriculture and Environment, Firenze, Italy Alma Guadalupe Barajas-Alcalá, National Autonomous University of Mexico campus Morelia **Co-Conveners:** Yongguan Zhu, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing, China Junguo Liu, North China University of Water Resources and Electric Power, Henan, China Ziska, Lewis H., Environmental Health Sciences, Mailman School of Public Health, Columbia University Peng Wang, Nanjing Agriculture University Yu Wang, Institute of Soil Science, Chinese Academy of Sciences Silvia Imhoff, ICiAgro Litoral - CONICET-UNL, Esperanza, Argentina Karen Vancampenhout, KU Leuven Association, Leuven, Belgium

Schedule	ID	Title	Presenter
09:00-09:15	33003	Towards Sustainable Rice Cropping Systems in a Changing Climate	Kees Jan van Groenigen University of Exeter
09:15-09:30	319B82	Research Progress and Prospects of Paddy FACE	Chunwu Zhu Institute of Soil Science, Chinese Academy of Sciences
09:30-09:45	32823	Bio-Composts and Soil Microbiomes under a One Health Approach: Assessing Microbial Shifts and Antimicrobial Resistance in an Ex-Situ Pilot Study	Adriano Sofo University of Basilicata

Parallel Sessions

Tuesday, June 9 (Session 402006)			
09:45-10:00	33750	Characteristics of paddy soil: specifics in dynamics in organic carbon cycling	Tida Ge Ningbo University
10:00-10:15	32809	Occurrence, Properties and Sustainable Management of Degraded Upland Soils Under a Changing Climate in the Philippines	Victor B. Asio Visayas State University
10:15-10:30	32665	Omics analysis reveals the antagonistic mechanism of foliar zinc-selenium application and its impact on wheat grain quality	Xiaohong Tian College of Natural Resources and Environment, Northwest A&F University
10:30-10:45	33202	Preservation of Patterned Ground in Permafrost Non-Affected Soils: Evidence form the Central Apennines (Italy)	Andrea Salvucci Department of Agriculture, Food and Environmental Sciences, Polytechnic University of Marche, Ancona (Italy)
10:45-11:00	33749	Optimizing Mineral Nutrition to Improve Soybean Yield and Quality under Elevated CO_2	Zhichang Chen Institute of Soil Science, Chinese Academy of Sciences
11:15-11:30	31556	From Soil to Grain: Organic Farming Improves Micronutrient Bioavailability	Xiaopeng Gao University of Manitoba
11:30-11:45	32461	Managing domestic trade for food security with environmental and economic equity in China	Chen Wang Zhejiang University
11:45-12:00	33906	Revisiting Food Security in the Context of Climate Change: How Co-Occurring Heatwaves and Atmospheric Lead Deposition Jeopardize Crop Production	Kai Xu Sun Yat-sen University
12:00-12:15	33558	The link between soil security and one health	Damien J Field The University of Sydney
12:15-12:30	319B81	Climate change intensifies phosphorus limitation in rice systems	Yu Wang Institute of Soil Science, Chinese Academy of Sciences

Parallel Sessions

Tuesday, June 9 (Session 402006)			
13:30-13:45	35673	Soil Health- Driven Improvements in Tropical Fruit Production: Insights from a Vietnam “Living Lab”	Chon Nguyen Quang Eurofins Agro Testing Competence Centre, Wageningen, The Netherlands
13:45-14:00	34433	Remediation of Degradaged Coastal Soil Using Biochar and Pyroligneous Acid	Hongyu Zhang Ocean University of China
14:00-14:15	36036	Soil pH controls cropland N2O responses to rising CO2	Yu Jiang Nanjing Agricultural University
14:15-14:30	35446	Leveraging Sulfate to Modulate Arsenic Accumulation in Rice	Shuqiong Kong Yangtze University
14:30-14:45	35796	Reduced Protein Content under Elevated CO2 Enhances Perfluorooctanoic Acid Bioaccumulation in Wheat	Fan Jiang Nanjing University
16:30-16:45	34470	Beyond constant CO_2: Asymmetric day-night elevation, arbuscular mycorrhizal fungi, and intercropping dynamics shape plant physiology and productivity	Xinhua He Shanxi Agr U\/Sichuan Agr U\/UWA\/UC Davis
16:45-17:00	34564	Integrated Physiological and Microbial Mechanisms Underlying Cold Tolerance in Japonica Rice: From Root Function to Rhizosphere Ecology	Jia Yan Northeast Agriculture University
17:00-17:15	36041	Active soil microbiomes link urbanization and climate to zoonotic pathogen risk in Chinese cities	Yi-Yue Zhang Institute of Urban Environment, Chinese Academy of Sciences

Parallel Sessions

Monday, June 8 Tuesday, June 9	Room: Convention Center, Nanjing 203
Session 403002	**Land Use and Management Effects on Soil Health and Environmental Quality** **Convener:** Gary Feng, USDA-ARS, United States **Co-Conveners:** Tingting Chang, Hohai University, China Yujie Zhang, Nanjing Hydraulic Research Institute, China

Schedule	ID	Title	Presenter
Monday, June 8 (Session 403002)			
13:15-13:30	31613	Signatures of soil structural degradation: exploring stable water isotopes in soil pores	Jessica Brook School of Biological Sciences, University of Aberdeen
13:30-13:45	31684	Ecological impacts of farming practices on soil quality in a Mediterranean agroecosystem	Rosangela Addesso Department of Agricultural, Forestry, Food and Environmental Sciences (DAFE), University of Basilicata
13:45-14:00	32230	Impact of organic mulch dose and type: A comprehensive Belgian case study	Rémy Willemet Plant Sciences Unit, Flanders Research Institute for Agriculture, Fisheries and Food (ILVO); Department of Environment - SENSE Unit, Ghent University
14:00-14:15	32357	Soil health in the vineyards of North-Western Italy: a story of terroirs	Sara Negri Department of Agricultural, Forest and Food Sciences, University of Turin

Parallel Sessions

Monday, June 8 (Session 403002)			
14:15-14:30	32437	Effects of Land-Use Change on Soil Infiltrability and Preferential Flow in Typical Low Hilly Area	Linlin Chu Hohai University
14:30-14:45	32567	Soil health and carbon sequestration dynamics in sandy soil within the Low Carbon Brazilian Beef protocol	Flávia Cristina dos Santos Embrapa Maize and Sorghum
14:45-15:00	32576	Improving Soil Health in An Irrigated Arid Agroecosystem	Omololu J. Idowu Department of Extension Plant Sciences, New Mexico State University
15:00-15:15	32659	Dynamic of soil organic carbon and phosphorus for different technological options in the Peruvian Amazon	Julio Alegre Universidad Nacional Agraria La Molina
16:30-16:45	32756	Effects of regenerative organic agriculture on soil quality and plant biochemistry	Pavel Chechenkov Department of Humanities, University of Ferrara
16:45-17:00	32775	Post-Agrogenic Ecosystem Recovery in the Smolensk Lakeland: a Comprehensive Study in Western Russia	Ivan Semenkov Isaev Centre for Problems of Forest Ecology and Productivity of the Russian Academy of Sciences
17:00-17:15	32808	Impact of Intensive Vegetable Production on the Properties of Andisol	Victor B. Asio Visayas State University

Parallel Sessions

Monday, June 8 (Session 403002)			
17:15-17:30	32875	Soil quality variation and its driving factors in rubber plantations of tropical China	Rui Sun Rubber Research Institute, Chinese Academy of Tropical Agricultural Sciences
17:30-17:45	32910	Distribution of Available Phosphorus in the Soils of Belgrade Across Urban Development Zones	Mirjana Tešić Department of Landscape architecture and horticulture, University of Belgrade Faculty of Forestry
17:45-18:00	33155	Tillage Intensity as a Driver of Soil Bacterial Composition and Functional Potential	Adriano Sofo Department of Agricultural, Forestry, Food and Environmental Sciences (DAFE), University of Basilicata, Potenza, Italy
18:00-18:10	31576	Soil health as a driver of yield patterns and management	Ricardo Canal Filho Laboratory of Precision Agriculture - Luiz de Queiroz College of Agriculture, University of São Paulo
18:10-18:20	32242	A Mixed-Methods Approach to Study Land Management and Soil Health in Urban Soils	Chengcheng Feng Wageningen University & Research
18:20-18:30	33541	The nonlinear response effect of arable land quality on arable land fragmentation in mountain areas	Ranran Pang Northeastern University

Parallel Sessions

Tuesday, June 9 (Session 403002)			
09:00-09:15	33206	Soil health and ecosystem services across land uses and biogeographical regions in Europe	Virginia Sánchez-Navarro Department of Agricultural Engineering, ETSIA, Universidad Politécnica de Cartagena, Cartagena, Spain
09:15-09:30	33342	Decades of Data: Evaluating soil dynamics under contrasting tillage systems in Fuchsenbigl, Austria, since 1988	Sophia Götzinger Austrian Agency for Health and Food Safety (AGES), Department for Soil Health and Plant Nutrition, Vienna, Austria
09:30-09:45	33350	Soil Health in U.S. Northern Great Plains Agriculture: A Comprehensive Review and Meta-Analysis	Carlos B. Pires School of Natural Resource Sciences, North Dakota State University
09:45-10:00	33618	Initial soil carbon status governs soil C stock changes, while pore characteristics improve after conversion of arable land to semi-natural grassland	Lars J. Munkholm Aarhus University
10:00-10:15	33801	Nitrogen dynamics, Soil Health, and Yield Responses under Long-Term Fertilizer and Manure Management in SAT of Central India	S. D. Jadhao Department of Soil Science, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola (Maharashtra), India
10:15-10:30	34085	Effects of protection time and stationary state on the fractal dimensions characteristics of the sandy soil in Hunshandake Sandy Land	Shuli Wang Northeast Forestry University
10:30-10:45	34225	Long-Term No-Tillage Effects on Plant Residue Decomposition and Soil Organic Carbon Formation and Accumulation Patterns in a Japanese Andosol	Daniel Asiamah Aboagye United Graduate School of Agricultural Science, Tokyo University of Agriculture and Technology, Tokyo, Japan
10:45-11:00	34346	Vegetation-Driven Soil Organic Carbon Regulate Mercury Accumulation in Karst Soil Profiles	Jicheng Xia Guizhou University

Parallel Sessions

Tuesday, June 9 (Session 403002)			
11:15-11:30	34467	The Legislative Basis for Soil Protection - The Red Soil Book	Bezuglova Olga Southern federal university
11:30-11:45	34475	Replacing periodic burning with improved forages reshapes soil carbon and nitrogen dynamics and tree-soil interactions in Colombian savannas.	Melanie Estrella Departamento de Producción Agraria, Escuela Técnica Superior de Ingeniería Agronómica, Alimentaria y de Biosistemas, Universidad Politécnica de Madrid, Madrid, Spain
13:30-13:45	34518	The effect of winter-sown oat catch crops on nitrogen leaching after livestock grazing	Brendon Malcolm New Zealand Institute for Bioeconomy Science Limited
13:45-14:00	34711	High standard farmland construction in typical agricultural areas of the Yellow River Basin based on cultivated land health quality evaluation	Peijia Liu Zhengzhou University
14:00-14:15	34912	Soil Properties of Oil Palm Based Agroforestry System	Yeong Wei Yan Universiti Putra Malaysia
14:15-14:30	35017	Soil carbon and nitrogen dynamics in mechanized maize-based intercropping	Pedro R. Soares Soil Physics and Land Management Group (SLM), Wageningen University & Research, Wageningen, The Netherlands; Research Centre for Natural Resources Environment and Society (CERNAS), Polytechnic Institute of Coimbra, Coimbra, Portugal
14:30-14:45	35224	Oil Palm Height, Frond Development and Chlorophyll Responses under Monoculture and Nauclea subdita Agroforestry	Nur Azleen Jamal Jaganathan Department of Land Management, Universiti Putra Malaysia, Selangor, Malaysia
14:45-15:00	32787	Assessing Black Soil Health and Ecosystem Functioning Change in Response to Agricultural Practices in Foumbot, Western Cameroon	Napoléon Amani Kagadju Department of Soil Sciences, Faculty of Agronomy and Agricultural Sciences, University of Dschang

Parallel Sessions

Tuesday, June 9 (Session 403002)			
16:30-16:45	35547	Decision support tool for improved nutrient and carbon management at farm level	Mengru Wang Earth Systems and Global Change, Wageningen University & Research, Wageningen, The Netherlands
16:45-17:00	35768	Optimized fertilization strengthens the soil health-yield relationship by enhancing biological activities	Junling Zhang china Agricultural University
17:00-17:15	319B41	Harnessing machine learning to improve nitrogen loss predictions in agroecosystems	Shu Kee Lam The University of Melbourne
17:15-17:30	34260	Land Use and Management Effects on Soil Health of Three Soil Types in the Republic of Serbia	Maja Manojlović University of Novi Sad, Faculty of Agriculture, Novi Sad, Republic of Serbia

Parallel Sessions

Thursday, June 11 Friday, June 12	Room: Expo Center, Hall 5, 5201
Session 404002	**Share Our Standpoints of Soil Teaching and Learning at School, University and Civil Society for the Future Development of Better Soil Education System** **Convener:** Takashi Kosaki, Aichi University, Japan **Co-Conveners:** Keiko Mori, Saitama Museum of Rivers, Japan Claudio Zaccone, University of Verona, Italy Taru Sanden, Austrian Agency for Health and Food Safety, Austria

Schedule	ID	Title	Presenter
Thursday, June 11			
11:15-11:20	-	Introduction	Takashi Kosaki
11:20-11:35	31980	From Soil Pits to Global Goals: Reimagining Soil Education for a Sustainable Future	Said Al-Ismaily Department of Soils, Water and Agricultural Engineering, Sultan Qaboos University
11:35-11:50	32179	EXPLORING THE SOIL: Learning and service guide to assess soil quality	Rosa M Poch Universitat de Lleida
11:50-12:05	33705	Asking once more; What is the essential knowledge of soil in early education, particularly in Monsoon Asian countries?	Keiko Mori Saitama Museum of Rivers
12:05-12:20	319B42	Soil Science Education in Kazakhstan Universities: Strengthening Soil and Geological Literacy for Sustainable Land Management	Aigul Zhapparova Kazakh National Agrarian Research University

Parallel Sessions

Thursday, June 11 (Session 404002)			
13:30-13:45	32691	Building Soil Science Literacy: Assessing Impact in K-12 Teacher Training	Jim Cudahy Soil Science Society of America
13:45-14:00	33462	Cultivating Soil Literacy in China: Assessing the Soil Collage as a Transformative Educational Tool	Yan Zhu Abovefarm
14:00-14:15	33085	Building Soil Literacy Through LADA: Teaching Soil Assessment, SOC Understanding, and Reliable Sampling	Maira Kussainova Kazakh National Agrarian Research University; Kazakh-German University (DKU); Kyoto University, Graduate School of Agriculture; Alfred University; Rakurs Tech
14:15-14:30	32755	Enhancing Soil Science Laboratory Learning through a Computer-Based Mineral Identification Program (MIP)	P. Trakoonyingcharoen Soil Science Department, Faculty of Agriculture at Kamphaeng Saen, Kasetsart University
14:30-14:45	35609	Pedagogical Fossilization in the Era of AI: The Risks of Algorithmic Bias in Soil Science Education	Alessandro Samuel-Rosa Federal Technological University of Paraná (Department of Agronomy, Santa Helena, Paraná, Brazil)
14:45-15:00	36368	It's the pits! Cementing theory through practice in soil science teaching	Paul Hallett University of Aberdeen
15:00-15:15	32337	Digging Deeper into the State of Collegiate Soil Judging in the United States	Elizabeth M. Eroshenko University of Nebraska-Lincoln

Parallel Sessions

Thursday, June 11 (Session 404002)			
16:30-16:45	32153	Experiential learning in the field: assessing the impact of the 2024 Moana Oceania Soil Judging Competition (New Zealand) on participants knowledge, skills and attitudes.	Carol Smith Lincoln University
16:45-17:00	32841	Fostering Soil Science: Insights from the 1st European Soil Judging Contest	Luis D. Olivares-Martinez Soil Science and Environmental Technologies Group (GETECMA), Department of Agrochemistry and Environment, Miguel Hernández University (UMH)
17:00-17:15	33141	An International Master school in Applied Soil Science. The EU project “Medsoils-challenge”	Simone Priori University of Tuscia, Department of Agriculture and Forest Sciences
17:15-17:30	33033	Co-developing soil science teaching and learning across North-South - a unique educational collaboration between The University of Melbourne and National University of Laos	Alexis Pang School of Agriculture, Food and Ecosystem Sciences, Faculty of Science, University of Melbourne
17:30-17:45	32132	Sustainable Land Management Study in Tertiary Institutions for Land Reclamation: Key to Sustainable Agriculture	Sifau Adejumo Department of Crop Protection and Environmental Biology, Faculty of Agriculture, University of Ibadan

Parallel Sessions

Friday, June 12 (Session 404002)			
09:00-09:15	319B80	Current Status and Future Trends of Soil Education in Mongolia	Khadbaatar Sandag Geography Department, Mongolian National University of Education
09:15-09:30	319B43	The World Soil of the Year: a way to promote and popularize soils	J.J. Lelis Leal de Souza Universidade Federal de Vicosa
09:30-09:45	33234	Sculpting the Campus, Cultivating Soil: An Eco-Art Pedagogy of Care and Action	Lipeng Jin Sichuan Fine Art Institute
09:45-10:00	33551	Soil: Eternal Heritage and Khayyam's Perspective	Seyed Kazem Alavipanah, Jafar Jafarzadeh Prof. of University of Tehran
10:00-10:15	-	Discussion	Takashi Kosaki

Parallel Sessions

Thursday, June 11 Friday, June 12	Room: Expo Center, Hall 6, 6202
	Soil and People: Culture, Education, and Intergenerational Connections
Session 406003	**Conveners:** Axel Cerón González, FWO Individual doctoral fellow - Vrije Universiteit Brussel and KU Leuven, Belgium Laura Bertha Reyes-Sánchez. National Autonomous University of Mexico Isabelle Verbeke, FAO, Land and Water Officer, Global Soil Partnership secretariat Sandén Taru, Austrian Agency for Health and Food Safety, Austria Nkosinomusa Buthelezi-Dube, University of KwaZulu-Natal, South Africa Rita Brara Mukhopadhyay, Visiting Professor, Ashoka University, Sonipat, India and Senior Fellow, Institute of Economic Growth, University Enclave, Delhi-110007 **Co-Conveners:** Arabela Vega Aguilar, Doctoral candidate - Autonomous University of Barcelona, Spain Javier Leonardo Toxqui Roldán, Soil Genesis, Morphology and Classification Research Group, Colegio de Postgraduados Campus Montecillo, Mexico Yannick Devos, AMGC - Archaeology, Environmental Change and Geochemistry Research Group, Vrije Universiteit Brussel, Belgium Ma. del Carmen Gutiérrez Castorena, Genesis, Morphology and Soil Classification Research Group, Colegio de Postgraduados Campus Montecillo, Mexico Xin Song, Institute of Soil Science, CAS Anna Krzywoszynska, University of Oulu Takuro Shinano, Hokkaido University Katsutoshi Mizuta, University of Kentucky

Parallel Sessions

Schedule	ID	Title	Presenter
Thursday, June 11 (Session 406003)			
11:15-11:20	-	Opening: Soils & Heritage	Axel Cerón González
11:20-11:40	31834	Two-Eyed Soil Seeing: Bridging Indigenous Knowledge and Science for Soil Security	Alex McBratney The University of Sydney; Sydney Institute of Agriculture; Aroura Global Soil Think Tank
11:40-11:55	31573	Indigenous Agricultural Terraces in Mexico	Javier L. Toxqui-Roldán Colegio de Postgraduados
11:55-12:10	33283	Soil Memory and Heritage: Foundations for Soil Literacy and the Codification of Soil Rights	Edoardo A.C. Costantini Academy of Georgofili, Florence; National Academy of Agriculture, Bologna CNR-IBE - Department of Biology, Agriculture and Food Sciences, Sesto Fiorentino 50019 (Italy)
12:10-12:25	31874	Soil Memory in Karstic Terraced Landscapes: A Geoarchaeology Study of Montefalco Castle, Central Italy	Axel Cerón González Vrije Universiteit Brussel
12:25-12:35	-	Closing & Discussion	Javier Toxqui-Roldan + Edoardo A.C. Costantini + Alex MacBratney + Axel Ceron

Parallel Sessions

Thursday, June 11 (Session 406003)			
13:30-13:35	-	2nd Part: Equity, Diversity & Inclusion	Laura Bertha Reyes + Nkosinomusa Buthelezi-Dube
13:35-13:50	32180	Profile of professor diversities (male and women) in Brazilian soil science	Risely Ferraz Almeida Universidade do Estado da Bahia
13:50-14:05	31732	Salary survey of soil science faculty in the United States of America: A gender comparison	Eric C. Brevik School of Agricultural Sciences, Southern Illinois University; School of Earth Systems and Sustainability, Southern Illinois University
14:05-14:20	32177	Gendered Dimensions of Soil and Agricultural Practices in Rajasthan's Arid Landscapes	Kanchan Mathur Professor and Officiating Director (Former) Institute of Development Studies
14:20-14:35	33554	Pathways to Inclusivity in Agricultural and Environmental Sciences	Jim Cudahy Soil Science Society of America
14:35-14:50	33780	Building the Future of Soil Science: Priorities in Workforce Development and Global Engagement	Michael Thompson lowa State University
14:50-15:00	-	Closing & Discussion	Laura Bertha Reyes + Nkosinomusa Buthelezi-Dube

Parallel Sessions

Thursday, June 11 (Session 406003)			
16:30-16:35	-	3rd Part: Education & Communication	Isabelle Verbecke
16:35-16:50	33406	Raising Soil Awareness through “Soil of the Year” Campaigns in Central Europe	Przemysław Charzyński Department of Soil Science and Landscape Ecology, Nicolaus Copernicus University in Toruń, Poland
16:50-17:05	34508	The Fun Soil Profiles according to the World Reference Base for Soil Resources	Adriana Ribon University of Goiás
17:05-17:20	32382	Digital resources and automated questionnaires for soil science education across secondary and higher education in Mexico	Axel Cerón-González Archaeology, Environmental Changes & Geochemistry Research Group, Vrije Universiteit Brussel; Department of Earth and Environmental Sciences, KU Leuven
17:20-17:35	32810	Operationalizing the Soil Information System Framework: a methodological approach to strengthening collaboration and strategic development applied through country roadmap workshops	David Rossiter ISRIC - World Soil Information
17:35-17:50	319B40	Publishing as an Early-Career Researcher in Soil and Water Conservation: Insights from International Soil and Water Conservation Research	Liqin Qu State Key Laboratory of Simulation and Regulation of Water Cycle in River Basin,China Institute of Water Resources and Hydropower Research
17:50-18:00	-	Closing & Discussion	Isabelle Verbecke

Parallel Sessions

Friday, June 12 (Session 406003)			
09:00-09:05	-	4th Part: Early Career Researchers	Takuro Shinano
09:05-09:20	31807	Crop identity modulates the homogenization of soil microbial functions induced by long-term fertilization	Guangren Zheng Northeast Institute of Geography and Agroecology Chinese Academy of Sciences Center for Agricultural Technology
09:20-09:35	31846	Digging Deeper: How Soil Re-engineering and Nitrogen Strategies Improve Root Growth and Yield in Barley and Triticale	Kanchana Wickramarachchi Department of Primary Industries and Regional Development
09:35-09:50	34720	Regional Assessment of Soil Compaction and Susceptibility in Salt-affected Arable Land in the Yellow River Delta	Dong Yuhao Modern Agricultural Engineering Laboratory, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences
09:50-10:05	35748	Multiscale Risks-Bioaccessibility Coupling Framework for Improving Derivation of Soil Cadmium Threshold	Shiyan Yang Shanghai Academy of Agricultural Sciences
10:05-10:20	35761	Soil Dashboards creation and soil information systems: The case for Ghana	Edward Yeboah CSIR-Soil Research Institute, Academy Post Office, Kwadaso, Kumasi, Ghana

Parallel Sessions

Friday, June 12 (Session 406003)			
10:20-10:25	-	5th Part: Soil Humanities	Rita Brara Mukhopadhyay
10:25-10:40	32572	Soil Justice: A Radical Black Marxist Framework for Addressing Soil Contamination	Salvatore Engel-Di Mauro SUNY New Paltz
10:40-10:55	35612	The evolution of soil science research in Portugal since the 19th century	João Horta Marques MED—Mediterranean Institute for Agriculture, Environment and Development and CHANGE—Global Change and Sustainability Institute, Universidade de Évora, Pólo da Mitra, Ap. 94, 7006-554 Évora, Portugal; CEF-Centro de Estudos Florestais and TERRA - Associate Laboratory, Instituto Superior de Agronomia, Universidade de Lisboa, Tapada da Ajuda, Lisbon 1349-017, Portugal
11:15-11:30	35044	Soil vocabularies: towards joint human and machine readable terminology	Maria Fantappie ISRIC - World Soil Information
11:30-11:45	-	Closing & Discussion	T. Shinano + I. Verbecke + N. Buthelizi-Dube + L.B. Reyes-Sanchez + R. B. Mukhopadhyay + A. Ceron-Gonzalez

Parallel Sessions

Monday, June 8 Tuesday, June 9	Room: Convention Center, Nanjing 201
Session 407001	**Soil Nitrogen Processes, Consequences, and Regulations**
	Convener: Feng Zhou, College of Urban and Environmental Sciences, Peking University **Co-Conveners:** Baojing Gu, College of Environmental & Resource Sciences, Zhejiang University Jinbo Zhang, School of Breeding and Multiplication, Hainan University Xu Zhao, Institute of Soil Science, Chinese Academy of Sciences Jun Shan, Institute of Soil Science, Chinese Academy of Sciences

Schedule	ID	Title	Presenter
Monday, June 8			
13:15-13:30	36210	The potential of optimized agricultural management to reduce global cropland nitrogen losses within safe boundaries	Wim de Vries Wageningen University and Research
13:30-13:45	35601	Reducing N-related environmental risk while achieving food security in China	Xuejun Liu China Agricultural University
13:45-14:00	31603	Global Soil Nitrogen Budget and Pollution hotspots (1980-2022)	Xiuming Zhang IIASA; Zhejiang University
14:00-14:15	33879	Estimating fractions of N_2O emissions from nitrification and denitrification using data assimilation	Baobao Pan University of Melbourne
14:15-14:30	34896	Optimizing the C: N Ratio of N-Enriched Biochar Enhances Soil Nitrogen Dynamics, Enzyme Activity, and Crop Productivity under Reduced Nitrogen Inputs	Muhammad Tauseef Jaffar Northwest A & F University
14:30-14:45	32023	SmartField Solutions: Advancing N2O Mitigation in Danish Agriculture	Meng Kong Department of Agroecology, Aarhus University, AU Viborg
14:45-15:00	32289	Modeling soil HONO emissions	Dianming Wu East China Normal University
15:00-15:15	32965	Balancing Productivity, Profitability, and Sustainability: Quantifying Nitrogen Fate and Optimizing Site-Specific Management in High-Rainfall Agroecosystems	Vaibhav Balasaheb Shelar Auburn University

Parallel Sessions

Monday, June 8 (Session 407001)			
16:30-16:45	32516	Evaluating the Fate of Nitrate in Deep Soils Using Dual Isotopes	Xia Zhu-Barker University of Wisconsin-Madison
16:45-17:00	32239	The disparity between canopy and understory N deposition in regulating soil N2O emissions in a Moso bamboo forest	Yanjiang Cai Zhejiang A&F University
17:00-17:15	36033	Free-living nitrogen fixation in paddy soils: integrating continental-scale drivers with phonologic dependent dissolved organic matter coupling	Jun Shan Institute of Soil Science, Chinese Academy of Sciences
17:15-17:30	34485	Long-term atmospheric nitrogen deposition and environmental impacts in a subtropical watershed in Central China	Jianlin Shen Institute of Subtropical Agriculture, Chinese Academy of Sciences
17:30-17:45	34724	Soil rather than fertilizer dominates N2 emissions in flooded paddy fields	Longlong Xia Institute of Soil Science, Chinese Academy of Sciences
17:45-18:00	35936	Contrasting effects of drought periods on grassland nitrous oxide emissions are attenuated by nitrogen deposition	Yujie Shi Northeast Normal University

Parallel Sessions

Tuesday, June 9 (Session 407001)			
09:00-09:15	319B49	Introduction of N2026 and a new journal Nitrogen Cycling	Kentaro Hayashi Research Institute for Humanity and Nature, Japan Xiaoyuan Yan Institute of Soil Science, Chinese Academy of Sciences
09:15-09:30	35116	Quantify gaseous nitrogen production from agricultural soils using a microbial-explicit model	Zhifeng Yan Tianjin University
09:30-09:45	33909	Effects of manure substitution on nitrous oxide emissions in a subtropical Ultisol	Yongxin Lin Fujian Normal University
09:45-10:00	33972	Effect of Soil Moisture on Nitrous Oxide Emission from Two Intensively Cultivated Agricultural Soils in Sri Lanka - A Microcosm Study	K.M.T.S. Kulathunga Department of Soil Science, Faculty of Agriculture, University of Peradeniya
10:00-10:15	34141	Global nosZ diversity informs microbial community profiling related to N_2O reduction in maize cropland soils	Gengbo Jiang Sun Yat-sen University
10:15-10:30	35255	Dynamic Hydrological Connectivity Regulates the Transport and Transformation of Soil Derived N2O in a Subtropical Karst Critical Zone	Nan Zou Tsinghua University
10:30-10:45	36548	Tracing nitrogen and carbon controls on urine-induced N2O emissions in regenerative and continuous grazing systems	Yuxue Cai 1 Global Agriculture and Food Systems, The Royal (Dick) School of Veterinary Studies, University of Edinburgh, Edinburgh, UK
10:45-11:00	36600	Role of particulate organic matter accrual in affecting 15N fate to grain corn comparing long-term vs. first-time vs. no cover cropping	Yajun Peng University of Guelph

Parallel Sessions

Tuesday, June 9 (Session 407001)			
11:15-11:30	34446	Mechanistic insights into microbial pathways for nitrate loss in forest ecosystems	Jinsen Zheng Japan International Research Center for Agricultural Sciences
13:30-13:45	319B48	Viruses of nitrifying prokaryotes and their impact on soil nitrogen cycling	Graeme W. Nicol Department of Microbial Ecology, University of Lyon
13:45-14:00	32274	Dissolved Organic Nitrogen Losses in Organic Systems: Challenging the Texture Paradigm	Eleanor Sangree University of California Santa Cruz
14:00-14:15	32457	Depth-Dependent Soil Compaction as a Modulator of Nitrous Oxide Fluxes in Cropping Systems	Elysia Lewis Department of Agronomy, Food, Natural Resources, Animals, and Environment, University of Padova
14:15-14:30	32751	Feasibility of gypsum by-products as soil amendment to mitigate nitrous oxide emission from arable soil	Chang Oh Hong Pusan National University
14:30-14:45	32766	Summer fallow drives leaching of legacy nitrogen in cereal land converted from old orchard	Mengzhen Zhao Northwest A&F University
14:45-15:00	32668	Flooding duration and temperature jointly drive soil nitrogen transformation rates in the floodplain wetlands of Poyang Lake during the dry season	Xinyi Jiang College of Life Sciences, Nanchang University; Jiangxi Provincial Key Laboratory of Carbon Neutrality and Ecosystem Carbon Sinks
16:30-16:45	32315	Coupled Carbon-Nitrogen Cycles with Global Change	Baojing Gu Zhejiang University
16:45-17:00	34227	A mechanistic framework to explain variability in nitrification inhibitor performance across soils	Ben A. Rigby The University of Melbourne
17:00-17:15	31662	Mineral-Microbial Interactions Drive Variation in Nitrogen Transformation Characteristics During Entisol (Purple Soil) Development	Ting Lan Sichuan Agricultural University
17:15-17:30	33629	Exogenous input stoichiometry regulates the spatiotemporal synchronization of soil nitrogen supply and maize demand: A microbiome-driven mechanism	Zhe Zhao Shenyang agricultural university
17:30-17:45	35753	Identifying active nitrate-assimilating bacteria that alleviate secondary salinization in facility soils	Cheng Han Nanjing Normal University
17:45-18:00	36430	Water content and pH thresholds jointly control the distribution pattern of soil nitrogen in arid zone ecosystems	Jia Guo Xinjiang University
18:00-18:15	32710	Patterns and mitigation mechanisms of dinitrogen emissions and ammonia volatilization from paddy under elevated CO_2 and warming	Yu Liu Institute of Soil Science, Chinese Academy of Sciences

Parallel Sessions

Monday, June 8	Room: Expo Center, Hall 5, 5202
Session 408001	**Harmonization of Soil Health Monitoring: Scientific, Institutional, and Societal Perspectives** **Convener:** Claudio Zucca, University of Sassari & Sustainable Management of Soil and Landscape (SMSL) Centre **Co-Convener:** Sergio Saia, University of Pisa

Schedule	ID	Title	Presenter
13:15-13:30	32985	The Soil Indicator Dichotomy - finding the common ground	Nathan Robinson Federation University
13:30-13:45	31815	Unpacking Cause and Effect in Soil Health Science	Yang Lin University of Florida
13:45-14:00	35764	Building a Grower Facing Portal for Soil Health Assessment and Decision Making	Elizabeth Rieke Soil Health Institute
14:00-14:15	36615	The role of SOILS4MED project in promoting soil information in the Mediterranean and a unique case study from Apulia Region in Italy	Pandi Zdruli CIHEAM Mediterranean Agronomic Institute of Bari
14:15-14:30	35506	Assessment and Long-Term Monitoring of Soil Quality in France and its Overseas Territories	Lilou VANOVERBEKE INRAE France

Parallel Sessions

Monday, June 8 (Session 408001)			
16:30-16:45	33443	From Soil Enzymes to Policy: The Soil Health BR Platform as a National Tool for Climate-Smart Agriculture in Brazil	Ieda Carvalho Mendes Embrapa Cerrados
16:45-17:00	33543	Study on the Trade-offs between Cultivated Land Soil Health and Cultivated Land Soil Quality	Huan Xu Northeastern University
17:00-17:15	35885	A Comparison of Two Soil Health Assessment Frameworks	Cristine L.S. Morgan Soil Health Institute
17:15-17:30	32197	Microbial Biodiversity and its role in Soil Health in Mediterranean Agricultural Landascapes of Sicily	Lino Sciurba Department of Agricultural, Food and Forest Sciences, University of Palermo
17:30-17:45	35003	Unveiling Soil Vitality in Morocco: A Comprehensive Evaluation of Soil Health Indicators in a semi-arid area	Zineb El Mouridi National Institute of Agricultural Research (INRA), BP 6356, CRRA Rabat, Av. Al Irfane, 10100 Rabat, Morocco.; Ibn Tofail University, Faculty of Sciences, Plant and Animal Productions and Agro-Industry Laboratory, Department of Biology, PO Box 133, Kénitra, Morocco.
17:45-18:00	32907	From fragmented legacy data to predictive hydraulics: PTF4MED for Mediterranean soils	Giacomo Belvisi Dipartimento di Scienze Agrarie, Alimentari e Forestali, Università degli studi di Palermo
18:00-18:15	35363	The Soil Health Indicator: A Scalable, Rapid Assessment Tool Linking Soil Science to Agricultural Sustainability	J.A. Reijneveld Eurofins Agro Testing Competence Centre

Parallel Sessions

Thursday, June 11	Room: Convention Center, Nanjing 303A
Session 408003	**Soil Management Practices on Soil Health in Plastic Greenhouses** **Convener:** Ju Min, Institute of Soil Science, CAS **Co-Conveners:** Yufeng Liu, Shenyang Agriculture University Tingting Chang, Hohai University, China Yujie Zhang, Nanjing Hydraulic Research Institute, China

Schedule	ID	Title	Presenter
16:30-16:45	32631	Soil of Plastic Greenhouse Vegetable in China: Problems and Countermeasures	Ju Min Institute of Soil Science, Chinese Academy of Sciences
16:45-17:00	31824	Balancing Crop Yield and Environmental Risk in Chinese Greenhouse Vegetable Production Systems: Insights from Phosphorus Management	Yusef Kianpoor Kalkhajeh Department of Environmental Science, College of Science, Mathematics and Technology, Wenzhou-Kean University; Center for Integrative Plant Sciences, Wenzhou-Kean University; Department of Biology, College of Science, Mathematics and Technology
17:00-17:15	31789	Farming system diversification enhances land use efficiency of China's protected horticulture	Jinlong Dong Institute of Soil Science, Chinese Academy of Sciences

Thursday, June 11 (Session 408003)			
17:15-17:30	35882	Organic substitution as a soil health management practice alleviates salinization and steers nematode assembly in plastic greenhouse soils	Xuefeng Hu Tianjin Normal University
17:30-17:45	32782	Effects and Mechanisms of Plastic Film Residue on N2O Emissions in Greenhouse Vegetable Soils	Yaqiong Hao Institute of Soil Science，Chinese Academy of Sciences
17:45-18:00	34149	Enhanced soil ecosystem multifunctionality and microbial community shifts following spent mushroom substrate application in protected vineyards	Xiaochi Ma Jiangsu Academy of Agricultural Sciences
18:00-18:15	35041	Enhancing silicon uptake and use efficiency in Piper nigrum L. against Fusarium disease on acidic soils using Calciprill and sodium silicate	Ng Ji Feng PS Global Sdn. Bhd., No. 12-5, Block 2, Jln Setia Prima S U13⁄S, Setia Alam, 40170 Shah Alam, Selangor, Malaysia

Parallel Sessions

Thursday, June 11 Friday, June 12	Room: Convention Center, Nanjing 202
Session 408004	**Soil & Environmental Health: Advancing Science for Human & Ecosystem Resilience** **Conveners:** Lizhong Zhu, Zhejiang University Yongguan Zhu, Research Center for Eco-Environmental Sciences **Co-Convener:** Lena Qiying Ma, Zhejiang University

Schedule	ID	Title	Presenter
Thursday, June 11			
11:15-11:18	**Starting** **Chairs: Fang-Jie Zhao and Montserrat Filella**		
11:18-11:43	33427	Arsenic biogeochemistry in paddy rice systems	Fang-Jie Zhao Nanjing Agricultural University
11:43-12:03	33539	A seminal paper: 25 years on enrichment factors cited rather than understood	Montserrat Filella Department F.-A. Forel, University of Geneva, Geneva, Switzerland
12:03-12:18	33429	Ecological and Human Health Risks of Heavy Metals in Coastal Sediments of Grand Bahama Island	Williamson Gustave School of Chemistry, Environmental & Life Sciences, University of the Bahamas
12:18-12:30	35065	Seeing is believing: Exploring metal interactions in rice paddies using chemical imaging tools	Dong-Xing Guan Zhejiang University

Parallel Sessions

Thursday, June 11 (Session 408004)			
13:30-13:33	**Starting Chairs: Yetao Tang and Xiaoming Zou**		
13:33-13:58	-	Ecological restoration of rare earth element mine sites in South China	Yetao Tang Sun Yat-sen University
13:58-14:18	34684	Calcium in Soil Health: Beyond pH Management to Mitigating Phosphorus Overuse and Enhancing Carbon Stabilization	Xiaoming Zou Jiangsu Academy of Agricultural Sciences
14:18-14:38	34686	Biochar laced with elemental sulfur restores microbial function in aridland soils	Daniel Blackburn Department of Soils, Water and Agricultural Engineering, Sultan Qaboos University
14:38-14:58	33679	Particle and mass characteristics influence in vitro and in vivo lead bioavailability from multiple sources	Xiaoping Li Shaanxi Normal University
14:58-15:15	33961	Harnessing Non-Conventional Salt-Accumulating Plants for Integrated Phytodesalination and Sustainable Salinity Management	Kashif Hayat Zhejiang Shuren University
15:30-15:33	**Starting Chairs: Xinbin Feng and Daniel Blackburn**		
15:33-15:58	33823	Mercury sources in soil of forest ecosystems and health risks to birds	Xinbin Feng Institute Of Geochemistry, Chinese Academy Of Sciences
15:58-16:13	33846	Dietary strategies to reduce bioavailability and toxicity of lead, cadmium, and arsenic following oral exposure: Mechanisms and health implications	Hongbo Li Nanjing University
16:13-16:28	35159	Heavy metals migration from soil to animal/human in heavy metal contaminated areas: Fate and risk of legacy Pb and Cd	Liping Li Henan University of Technology
16:28-16:40	34616	Health risk assessment of dietary cadmium exposure based on cadmium bioavailability in food: Opportunities and challenges	Di Zhao Nanjing Agricultural University
16:40-16:52	35376	From Predict to Control Cr(VI) Risk in Agricultural Soil: Aging Model and S- nZVI Stabilization for Crop Safety	Shi-Wei Li University of Jinan
16:52-17:02	34237	Luxury at a Cost: Linking Portable XRF-Based Bioaccessible Chromium to ICP-MS-Determined Chromate and Dermal Permeation Risk in Bright-colored Leather Products	Can Liu Zhejiang University
17:05-18:00	-	**Editorial board meeting of Soil & Environmental Health journal**	**Chair: Lena Q Ma**

Parallel Sessions

Friday, June 12 (Session 408004)			
09:00-09:05	**Starting Chairs: Jay Gan and Benny Chefetz**		
09:05-09:30	35425	PFAS in Agro-Food Systems: Risk Management Strategies	Jay Gan Zhejiang University
09:30-09:50	33847	Agricultural Water Reuse: Effects on Soil and Ecosystem Health	Benny Chefetz Agricultural Research Organization - Volcani Institute; Hebrew University of Jerusalem
09:50-10:10	36071	Reinventing Soil Health in the Plastic Age: Fungal-Nano Synergies for Microplastic Remediation	Nasir Mehmood Academy of Biology and Medicine, Southern Federal University, Rostov on Don, Russia
10:10-10:25	34786	Variation in Arsenic Accumulation and Remediation Potential among Different Genotypes of Pteris vittata	Yue Cao Sun Yat-sen University
10:25-10:37	34137	Hyphospheric Phosphorus Enhances Arsenic Hyperaccumulation in Pteris vittata via Coordinated Mycorrhizal and Root Uptake Pathways	Chenjing Liu Zhejiang University
10:37-10:48	35652	Phytate-Mediated Arsenic Hyperaccumulation in Pteris vittata: Synthesis, Sequestration, and Exudation	Chunyan Hu Zhejiang University
10:48-11:00	34606	Multi-dimensional Drivers for Urban Soil Microbial Diversity: Insights from the Species-area Relationship	Xinyue Yang School of Geographical Sciences, Faculty of Science and Engineering, University of Nottingham Ningbo China; State Key Laboratory of Regional and Urban Ecology, Ningbo Observation and Research Station, Institute of Urban Environment, Chinese Academy of Sciences

Parallel Sessions

Friday, June 12 (Session 408004)			
-	Chairs: Ganga M Hettiarachchi and Lena Q Ma		
11:15-11:35	35469	Phosphorus and cover crop management practices alter phosphorus speciation in soils and eroded sediments	Ganga M Hettiarachchi Kansas State University
11:35-11:50	35721	Re-thinking Climate Resilience in Smallholder Agriculture: Insights from Technology, Economics, and Policy Interactions in Eastern India	Shubham Anil Durgude International Maize and Wheat Improvement Centre CIMMYT, New Delhi, India
11:50-12:02	34622	How Does Vegetation Cover Alter Mercury Accumulation and Mobility in Soils of Guizhou?	Namu Moduzuo GuizhouUniversity
12:02-12:14	35780	Adapting to Climate Change: Sustaining Soil Health through Carbon- Nitrogen Cycle Management	Jinglan Cui Zhejiang University
12:14-12:25	36387	Digital Characterization of the Spatial Distribution of the Albic Horizon in the Northeast Black Soil Region	Shou-Xi Lv Shenyang Agricultural University

Parallel Sessions

Thursday, June 11 Friday, June 12	Room: Convention Center, Nanjing 403A
Session 409001	**Advances in Best Management Practices for Achieving Climate-Smart Agriculture** **Convener:** Yuchuan Fan, Professor, College of Jiyang, Zhejiang A&F University, Zhejiang, China **Co-Conveners:** Xi Zhang, Assistant Professor, Biosystems Engineering and Soil Science Department, The University of Tennessee, Knoxville, TN, USA Xun Wu, Associate Professor, College of Land Science and Technology, China Agricultural University, Beijing, China Liujun Xiao, Associate Professor, College of Agriculture, Nanjing Agricultural University, Nanjing, China

Schedule	ID	Title	Presenter
Thursday, June 11			
11:15-11:30	33082	A Framework for Agricultural Best Management Practices (BMPs): Guidelines, Database, and Future Directions	Yuchuan Fan Zhejiang A&F University
11:30-11:45	31631	Optimizing sampling protocols for agriculture and soil science: introduction of a spatial machine learning decision support tool	Alon Ben-Gal Soil, Water, and Environmental Sciences, Agricultural Research Organization - Volcani Institute
11:45-12:00	36370	Regional variation in the potential to reach net zero emissions in global agriculture	G.H. Ros Wageningen University, the Netherlands

Parallel Sessions

Thursday, June 11 (Session 409001)			
12:00-12:15	33240	Enhancing Soil Resilience and Climate Adaptation through Site-Specific Agroecological Strategies - AGROSUS Project	Alicia Morugán-Coronado Universidad Politécnica de Cartagena
12:15-12:30	34633	Soil Organic Carbon Buffers Wheat Yield Against Warming by Regulating Phenological Sensitivity	Yang Yan xianghu lab; zhejiang univerfsity; Xianghu lab; Zhejiang univerfsity
13:30-13:45	36493	Optimizing soil improvement and nitrogen management for sustainable crop production	Liujun Xiao Nanjing Agricultural University
13:45-14:00	31584	Effect of cover crops on carbon and nitrogen stocks in perennial crops under Mediterranean conditions	Raul Zornoza Universidad Politecnica de Cartagena
14:00-14:15	33152	Mechanism of soil carbon sequestration in cover cropping systems	Jun Wang Northwest University, PR China
14:15-14:30	33670	Functional legume rotations optimize global synergies between soil organic carbon accrual and crop yield	Huadong Zang China Agricultural University
14:30-14:45	34549	Effects of manure and agronomic practices on particulate, dissolved, and mineral-associated organic matter in a long-term integrated crop-livestock system	Inoka Amarakoon The University of Manitoba
14:45-15:00	34155	Effects of Plant Density, Nitrogen Rate and Supplemental Irrigation on Maize Source-Sink Relationship and Water-Nitrogen Use Efficiency Under Straw Mulch in Northeast China	Yuning Li China Agricultural University
15:00-15:15	33275	Nitrogen use for improved profitability and sustainability of rice production in central Myanmar	Xia Liang School of Agriculture, Food and Ecosystem Sciences, Faculty of Science, The University of Melbourne

Parallel Sessions

Thursday, June 11 (Session 409001)			
16:30-16:45	35629	Including water-salinity stress hysteresis and compensation to empirical root water uptake models	Xun Wu China Agricultural University
16:45-17:00	34823	Root-zone Water and Salt Transport Dynamics and Irrigation Optimization in Mulched Drip-Irrigated Cotton Fields in Arid Regions	Chong Fu China Agricultural University
17:00-17:15	32069	Neglecting Non-Rainfall Water Contributions Results in an Overestimation of Crop Water Use Efficiency	Anqi Wang College of Jiyang, Zhejiang A&F University
17:15-17:30	31637	Pathways to resilience in dryland agricultural systems	Zhihao Tan The University of Queensland
17:30-17:45	32598	Interactive effects of straw and biochar amendments on soil organic carbon stabilization and bacterial community dynamics	Ninghui Xie College of Agriculture, Inner Mongolia Minzu University
17:45-18:00	34818	Decadal biochar legacy alters soil physicochemical properties but not microbial C turnover	Mingming Zong Aarhus University
18:00-18:15	36230	Evaluation of ultra-fine lime to manage soil acidity using reactivity and eluviation assays	Erinne Stirling Adelaide University; CSIRO
18:15-18:30	31582	EcoPond - A nature-based mitigation technology for methane emissions from animal effluents	Hong J Di Lincoln University

Parallel Sessions

Friday, June 12 (Session 409001)			
09:00-09:15	31849	Innovative Pasture Diversification Trials to Enhance Soil Health, Carbon Dynamics, and Climate Resilience	James O'Connor The UWA Institute of Agriculture, The University of Western Australia; UWA School of Agriculture and Environment, The University of Western Australia
09:15-09:30	35509	Silvopastoral Systems as a Strategy to Increase Carbon Stocks and Improve Soil Health in Brazilian Drylands	Leidivan Almeida Frazão Federal University of Minas Gerais; Center for Carbon Research in Tropical Agriculture
09:30-09:45	31806	Impacts of Corn Hybrid and Fertilization Strategies on Plant Carbon Allocation and Soil Carbon Dynamics Under Variable Moisture Conditions	Yichao Rui Purdue University
09:45-10:00	32052	Does a long-term no-till corn-soybean rotation decrease nitrous oxide emissions in Alfisols?	Amir Sadeghpour Crop, Soil, and Environment Program, School of Agricultural Sciences, Southern Illinois University
10:00-10:15	35208	Evaluating BMPs that reduce GHGs (N20) and improve water quality: A case study in southern Ontario, Canada	Prasad Daggupati Department of Civil, Environmental and Water Resource Engineering, University of Guelph, Canada
10:15-10:30	32945	Greenhouse gas emissions as influenced by integrated conservation management practices under organic production in a sandy soil	Frank Oliver Clemson University
10:30-10:45	33447	Sustainable Pathways for Southeast Asia's Rice Systems	Yunrui Li School of Agriculture, Food and Ecosystem Science (SAFES), Faculty of Science, The University of Melbourne, Melbourne, Australia
10:45-11:00	36619	Controlled-Release Fertilizers in BMPs for Sustainable Agriculture	Bin Gao Rensselaer Polytechnic Institute

Parallel Sessions

Tuesday, June 9	Room: Expo Center, Hall 5, 5201
Session 409002	**Advancing Soil Organic Carbon Science for Sustainable Land Management** **Convener:** Zhongkui Luo, Zhejiang University **Co-Conveners:** Budiman Minansy, University of Sydney Zhou Shi, Zhejiang University Qiangyi Yu, Chinese Academy of Agricultural Sciences Songchao Chen, Zhejiang University

Schedule	ID	Title	Presenter
09:00-09:15	34020	Global estimation of soil microbial-derived carbon stocks and its implications for the carbon cycle	Han Hu Institute of Soil Science, Chinese Academy of Sciences
09:15-09:30	32672	Divergent drivers of soil organic carbon factions across global pedoclimatic zones	Songchao Chen Zhejiang University
09:30-09:45	33992	Advancing soil organic carbon assessment by integrating fractionated pools, biology, and land-use history across managed landscapes	Louis-Pierre Comeau Agriculture and Agri-Food Canada, Government of Canada
09:45-10:00	34742	Response of soil organic carbon to the changes in plant productivity under warming	Mingming Wamg Zhejiang University
10:00-10:15	34641	Unraveling the Interconnections of Soil Organic Carbon Dynamics in Sustainable Land Management	Qiangyi Yu CAAS; CAAS
10:15-10:30	32378	Whole-profile soil organic carbon simulation in China using SOILcarb model	Yuanyuan Du Zhejiang University
10:30-10:45	33327	Soil organic carbon buffers crop yields against climate extremes	Haoyu Zhang Zhejiang University
10:45-11:00	32475	Modelling climate change impacts on soil organic carbon dynamics in dryland croplands	Jorge Álvaro-Fuentes CSIC

Parallel Sessions

Tuesday, June 9 (Session 409002)			
11:15-11:30	32387	Coupled geomorphic and climate-driven biogeochemical processes regulate soil organic carbon stocks in agricultural terraces	Pengzhi Zhao Earth & Life Institute, Université catholique de Louvain
11:30-11:45	34368	Quantifying non-linear relationships and causal effects of soil organic carbon on crop productivity stability	Yuyang Huang ZhejiangUniversity
11:45-12:00	34524	National Scale Mapping of Soil Organic Carbon Vulnerability Indicators in New Zealand	Pierre Roudier Bioeconomy Science Institute
13:30-13:45	33187	Crushed basalt application shows soil improvement and potential carbon capture in wheat field	Binoy Sarkar Future Industries Institute, Adelaide University, Mawson Lakes, SA 5095, Australia
13:45-14:00	34460	Integrating Remote Sensing and Process-Based Modeling to Assess Grassland Soil Organic Carbon Change	Marmar Sabetizadeh Earth and Life Institute, Université catholique de Louvain,Louvain-La-Neuve, Belgium
14:00-14:15	31956	Optimal Selection of Soil Organic Carbon Prediction Models and Their Implications for Potential Soil Erosion Estimation (RUSLE)	Qian Zou Jiangxi University of Finance and Economics
16:30-16:45	31383	Comprehensive Review: Insights into the Dynamics of Soil Organic Carbon Stocks in Vineyards	Mukkaram EJAZ Silesian University of Technology, Institute of Physics - Centre for Science and Education, Division of Geochronology and Environmental Isotopes, Konarskiego 22B, Gliwice 44-100, Poland
16:45-17:00	33089	Cover crop species and mixtures drive contrasting vertical distribution of root- and residue-derived C and N in conservation-tilled sandy Ultisols	Rongzhong Ye Clemson University
17:00-17:15	34967	Urban soils carbon across the scales and regions: who and what drive the spatio-temporal variability of soil carbon in urban areas	Viacheslav Vasenev Wageningen University
17:15-17:30	33798	Soil Organic Carbon Assessment Across Land- Use and Management Scenarios in a Metropolitan Urban-Rural Territory	C. Walter SAS, Institut Agro, INRAE
17:30-17:45	35295	Depth Variations and Drivers of Soil Organic Carbon in Croplands of the Black Soil Region, Northeast China	LI Liang College of Land Science and Technology, China Agricultural University

Parallel Sessions

Thursday, June 11 Friday, June 12	Room: Convention Center, Nanjing 203
Session 409003	**Climate Change and Soil Microbial Control Carbon Sequestration** **Convener:** Yang Yang, State Key Laboratory of Loess Science, Institute of Earth Environment, Chinese Academy of Sciences **Co-Conveners:** Shaoshan An, State Key Laboratory of Soil Erosion and Dryland Farming on the Loess Plateau, Northwest A&F University Anna Gunina, Peoples' Friendship University of Russia/Institute of Applied Ecology, Chinese Academy of Sciences Baorong Wang, State Key Laboratory of Soil Erosion and Dryland Farming on the Loess Plateau, Northwest A&F University Yanxing Dou, State Key Laboratory of Soil Erosion and Dryland Farming on the Loess Plateau, Northwest A&F University

Schedule	ID	Title	Presenter
Thursday, June 11			
11:15-11:30	32981	Activation energy of soil organic matter decomposition and Consequences of Global Warming	Yakov Kuzyakov University of Goettingen
11:30-11:45	32114	Mechanism of increased drought intensity stimulating the extracellular polymeric substance (EPS) accumulation and their contribution to soil organic carbon	Shaoshan An Northwest A&F University
11:45-12:00	34463	Symbiosis in an asymmetrical day-night high-CO_2 world: Interactive effects of arbuscular mycorrhizal fungi and elevated CO_2 on legume nutrition and soil fertility	Xinhua He Shanxi Agr U\/Sichuan Agr U\/UWA\/UC Davis
12:00-12:15	33508	Exploring drivers of microbial drought sensitivity through combined laboratory and field approaches	Alberto Canarini Department of Biological, Geological and Environmental Sciences, University of Bologna, Bologna, Italy

Parallel Sessions

Thursday, June 11 (Session 409003)			
12:15-12:30	35864	Effects of warming on SOC	Yuan Sun Nanjing Forestry University
13:30-13:40	32307	Fungal Necromass Carbon: Insights into Global Soil Carbon Sequestration and Its Practical Implementation in Circular Agricultural Systems	Dong Liu Kunming Institute of Botany, Chinese Academy of Sciences
13:40-13:50	32701	Linking the diversity of soil CO2-fixing microorganisms with soil organic carbon accumulation along biological soil crust chronosequence	Baorong Wang Northwest A&F University
13:50-14:00	33132	Grassland degradation-induced soil organic carbon loss associated with micro-food web simplification	Yang Hu Xinjiang Agricultural University
14:00-14:10	33469	Arbuscular mycorrhizal fungi hyphal density rather than diversity stimulates microbial necromass accumulation after long-term Robinia pseudoacacia plantations	Chunhui Liu Northwest A&F University
14:10-14:20	32883	Quantifying microbial controls on particulate and mineral-associated organic matter in cropland soils	Meixia Gao Institute of Applied Ecology, Chinese Academy of Sciences
14:20-14:30	31356	Aridity-driven soil carbon vulnerability to drought shapes future carbon-climate feedbacks	Baoku Shi Northeast Normal University
14:30-14:40	32080	Soil carbon mineralization decreased in desert steppe by light grazing but not fencing management	Tianqi Zhao Institute of Water Resources for Pastoral Area, Ministry of Water Resources
14:40-14:50	32081	Grazing disturbance reduces soil organic carbon sequestration and stability in desert steppe	Naijing Lu Institute of Water Resources for Pastoral Area, Ministry of Water Resources
14:50-15:00	35294	Thermal acclimation of soil microbial respiration across permafrost ecosystems: contrasting roles of autotrophic and heterotrophic microorganisms	Ning Tian Institute of Applied Ecology, Chinese Academy of Sciences
15:00-15:10	36406	Recognizing the role of soil microorganisms in organic carbon accumulation in drylands	Xiaoguo Zhou Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences

Parallel Sessions

Thursday, June 11 (Session 409003)			
16:30-16:45	34594	Global warming decreased soil organic carbon stock via increasing organic matter lability and heterotrophic respiration	YoungHo Seo Division of Applied Life Science (BK21+ Program), Gyeongsang National University, 501 Jinju-daero, Jinju, 52828, Republic of Korea
16:45-17:00	32340	Community, metabolic pathways and fixation potential of soil CO2-fixing microorganisms on the Loess Plateau	Yimei Huang Northwest A&F University
17:00-17:15	33025	Microbial Intracellular Carbon Storage: A Missing Link in Global Soil Carbon Sequestration Framework	Guanglong Tian Biosolids Utilization and Soil Science Section, Monitoring and Research Department, Metropolitan Water Reclamation District of Greater Chicago
17:15-17:30	33653	Global Change Reshapes Microbial Residues and Plant Lignin Components in Soils	Jiwei Li Northwest Agriculture & Forestry University
17:30-17:42	32266	Microplastics from conventional and biodegradable mulch films alter microbial necromass accumulation and organic carbon sequestration	Zhang Haixin HENAN INSTITUTE OF SCIENCE AND TECHNOLOGY
17:42-17:54	32267	Shifts in C-degradation genes and microbial metabolic activity with vegetation types affected the surface soil organic carbon pool	Huang Qian Northwest A&F University
17:54-18:06	32339	Orchard soils exhibit the highest microbial CO2 fixation potential and contribution to soil organic carbon across land-use types in Qaidam Basin	Fadan Lei Northwest A&F University
18:06-18:18	33733	Turnover of microbial biomass residues to soil organic matter and its contribution mechanism	Tiantian Zheng Shenyang Normal University
18:18-18:30	33824	Mechanisms underlying rhizosphere regulation of soil organic carbon components and stability by leguminous plants in subtropical karst and non-karst forests	Shuting Chen Guangxi Normal University

Parallel Sessions

Friday, June 12 (Session 409003)			
09:00-09:10	33886	Soil organic carbon formation from plant and microbial residual carbon: Effects of home-ffeld advantage and root litter quality	Huijun Li Qinghai University
09:10-09:20	34193	Substrate availability modulates the thermal responses of soil microbial respiration and growth	Tengyue Du Institute of Applied Ecology, Chinese Academy of Sciences
09:20-09:30	34247	Coupled temperature sensitivity of microbial carbon and nitrogen use efficiencies in forest soils on a continental scale	Yang Zhang Institute of Applied Ecology, Chinese Academy of Sciences
09:30-09:40	34336	Divergent responses of plant lignin phenols and microbial residues to global change: a global meta-analysis	Linjie Fan Zhejiang University
09:40-09:50	32309	The influence and mechanism of the interaction between Mineral-associated Organic Carbon and soil aggregates on soil carbon sequestration	Zijia Zuo Shaanxi Normal University
09:50-10:00	34630	Decades of no-till coupled with warming improves topsoil soil organic matter accrual via stimulate microbial carbon use efficiency	Xiaoying Jin China Agricultural University
10:00-10:10	35269	Context-dependent dominance of plant detritus or microbial necromass in soil organic carbon accrual	Tao Wang Institute of Mountain Hazards and Environment, Chinese Academy of Sciences, Chengdu 610041, China

Parallel Sessions

Thursday, June 11	Room: Expo Center, Hall 5, 5202
Session 409004	**Evolution of Soil Organic Matter: Impacts of Climate Change and Land Use Change** **Convener:** Nan Sun, Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences, China **Co-Conveners:** Xiujun Wang, Shanxi Agricultural University, China Lili Zhang, Institute of Applied Ecology, Chinese Academy of Sciences, China

Schedule	ID	Title	Presenter
11:15-11:35	31933	Differences of Soil Carbon Sequestration Efficiency of Typical Cropland in China, UK and USA	Minggang Xu State Key Laboratory of Efficient Utilization of Arid and Semi-arid Arable Land in Northern China, Key Laboratory of Arable Land Quality Monitoring and Evaluation, Ministry of Agriculture and Rural Affairs\/Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences; Institute of Eco-Environment and Industrial Technology, Shanxi Agricultural University
11:35-11:55	32406	Soil Carbon Change under Land Use and Climate Change	Pete Smith Institute of Biological & Environmental Sciences, University of Aberdeen
11:55-12:10	32305	Does elevated atmosphere CO2 facilitate soil carbon sequestration?	Caixian Tang La Trobe University

Parallel Sessions

Thursday, June 11 (Session 409004)			
12:10-12:25	320B40	Reconstruction of Rhizosphere Soil Microenvironments: Synergistic Plant-Microbe Purification Mechanisms and Practices	Lijuan Cui State Key Laboratory of Wetland Conservation and Restoration, Chinese Academy of Forestry Sciences, Beijing 100091, China
13:30-13:45	31934	To reduce CH4 and N2O emissions whilst maintaining crop yield in rice-wheat system in China with climate change using SPACSYS model	Nan Sun State Key Laboratory of Efficient Utilization of Arable Land in China, Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences
13:45-14:00	33728	Nitrogen addition effects on soil organic carbon accrual in cropland land	Tian Jing State Key Laboratory of Nutrient Use and Management, College of Resources and Environmental Sciences, China Agricultural University
14:00-14:15	33068	Decadal extreme drought reduces alpine subsoil carbon stocks	Jinsong Wang, Ronglei Zhou, Shuli Niiu Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences
14:15-14:30	33205	Crop diversification as a climate-smart strategy: A model-based assessment in Mediterranean orchards for soil carbon sequestration and greenhouse gas emissions mitigation	Virginia Sánchez-Navarro Department of Agricultural Engineering, ETSIA, Universidad Politécnica de Cartagena, Cartagena, Spain
14:30-14:45	36461	Long-term Grassland Conversion Reshapes Deep Soil C and N Cycling: Thermodynamic Destabilization and Microbial Drivers	Xiang Wang China Agricultural University
14:45-15:00	31501	Soil Microbial Diversity and Carbon Stability for Climate Resilient Land Management in the Western Ghats	Jagadesh Muthumani Department of Soil Science and Agricultural Chemistry, Tamil Nadu Agricultural University
15:00-15:15	34199	Mechanisms of soil organic carbon sequestration within aggregates of black soil under long-term land use change	Na Li Northeast Institute of Geography and Agroecology, CAS

Parallel Sessions

Thursday, June 11 (Session 409004)			
16:30-16:45	34091	Fertilizer-N recovery links to SOC stabilization and fractionation in straw-mulched soil: Insights from 15N-tracing and 13C natural abundance	Cong Xu Institute of Agricultural Resources and Environment, Jiangsu Academy of Agricultural Sciences
16:45-17:00	33770	Quantifying soil organic matter effects on nitrogen use efficiency and fate in wheat-maize cropping systems: a 15N tracer approach	Lin Liu Changzhi University
17:00-17:15	34382	Contrasting effects of long-term fertilization on pore structure and POM in upland and paddy soils revealed by X-ray CT	Zichun Guo Institute of Soil Science, Chinese Academy of Sciences, Nanjing
17:15-17:30	34588	Evolutionary Characteristics of Stable Organic Matter in Lateritic Red Soils under Long-Term Rotation and Fertilization Systems	Yingting Gong Institute of Agricultural Resources and Environment, Guangdong Academy of Agricultural Sciences
17:30-17:45	33392	Photocatalytic generation of reactive oxygen species from dissolved black carbon: Identification of photoproduction sites	Lin Wang Institute of Agricultural Resources and Environment, Sichuan Academy of Agricultural Sciences, Chengdu, 610066, China
17:45-18:00	33931	Organic fertilization under conservation tillage enhances biopore formation and particulate organic matter accumulation via fraction-specific pore relationships in a Vertisol	Tianyu Ding Institute of Soil Science, Chinese Academy of Sciences
18:00-18:15	34976	Distribution Characteristics and Influencing Factors of Carbon and Nitrogen Content in Mineral-Associated Organic Matter in Mollisols (Phaeozems) of Northeast China	Jiayi Duan Northeast Normal University; Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
18:15-18:30	35026	Long-term organic farming alters soil organic matter molecular composition through divergent microbial processing pathways	Zhanlonggang Yu China Agricultural University

Parallel Sessions

Monday, June 8	Room: Convention Center, Nanjing 205
Session 409006	**One Carbon Metabolism in Terrestrial Ecosystems** **Convener:** Jingjing Peng, China Agricultural University **Co-Conveners:** Werner liesack, Max Planck Institute for Terrestrial Microbiology Lei Cheng, Biogas Institute of Ministry of Agriculture and Rural Affairs Diana Z. Sousa, Wageningen University and Research

Schedule	ID	Title	Presenter
13:15-13:30	34487	Functional Diversity and Interactions of CO-utilizing Microbial Communities	Diana Z. Sousa Wageningen University & Research
13:30-13:45	34490	Culturing the Uncultured Anaerobes from the Perspective of Microbial Growth Curves	Lei Cheng Biogas Institute of Ministry of Agriculture and Rural Affairs
13:45-14:00	33914	Exploring Aerobic Methanotroph Diversity in Terrestrial Habitats: Recent Advances and Challenges for Further Studies	Svetlana N. Dedysh Winogradsky Institute of Microbiology, Research Center of Biotechnology of the Russian Academy of Sciences
14:00-14:15	34130	Life under Limiting Methane Metabolic Flexibility, Hydrogen Use, and Starvation/Revival of Methylocystis spp.	Werner Liesack Max Planck Institute for terrestrial Microbiology, 35043 Marburg, Germany; College of Resources and Environmental Sciences, China Agricultural University, Beijing 100083, China
14:15-14:25	33044	Optimizing and Simulating the Soil Carbon Fractions within the Beps-mend Framework	Mousong Wu Nanjing University

Parallel Sessions

Monday, June 8 (Session 409006)			
14:25-14:35	34061	Ozone-driven Spatial Divergence of Methane Production in Rice Paddies	Yang Ji Nanjing University of Information Science and Technology
14:35-14:45	34363	Vertical Profiles of Community and Activity of Methanotrophs in Large Lake and Reservoir of Southwest China	Quan Yuan Institute of Geochemistry, Chinese Academy of Science
14:45-14:55	34370	Elevational Patterns and Temperature Sensitivity of Soil Methane Oxidation in Southeastern Tibetan Forests	Yongcui Deng Nanjing Normal University
14:55-15:05	34136	Temperature-Driven Virus-Host Interactions Regulating Methane Production in Paddy Fields	Ruiliang Xu College of Resources and Environmental Sciences, State Key Laboratory of Nutrient Use and Management; Key Laboratory of Plant-Soil Interactions; National Academy of Agricultural Green Development, China Agricultural University, Beijing, China
15:05-15:15	34900	Cascading Regulation of Soil Micro-food Web on Carbon Stability in Camellia oleifera Intercropping Systems	Xiaohong Wu Central South University of Forestry and Technology

Parallel Sessions

Thursday, June 11 Friday, June 12	Room: Convention Center, Nanjing 205
Session 409007	**Physical, Chemical, and Biological Drivers for Soil Greenhouse Gas Fluxes**
	Convener: Zhifeng Yan, School of Earth System Science, Tianjin University **Co-Conveners:** Dani Or, Dept. of Civil and Environmental Engineering, University of Nevada, Reno, USA Yonghong Wu, Institute of Soil Science, Chinese Academy of Sciences, China Shuli Niu, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, China Pete Smith, Institute of Biological and Environmental Sciences, School of Biological Sciences, University of Aberdeen, UK

Schedule	ID	Title	Presenter
Thursday, June 11			
13:30-13:45	32538	Greenhouse Gas Emissions from Soils and Ways to Reduce Them	Pete Smith University of Aberdeen
13:45-13:55	32474	Soil greenhouse gas emissions under different land uses across Europe	Jorge Álvaro-Fuentes CSIC
13:55-14:05	32703	Recent stabilization of agricultural non-CO_2 greenhouse gas emissions in China	Songbai Hong Peking University
14:05-14:15	35183	Static Chamber Protocol Optimization for Soil Greenhouse Gas Flux Measurements under Pulse Events	Lifang Wu Tsinghua university

Parallel Sessions

Thursday, June 11 (Session 409007)			
14:15-14:25	32960	Effect of no-tillage based cover crop management on greenhouse gas emissions, and greenhouse gas balance in organic soybean field in Hokkaido, Japan	Bishal Subedi Graduate School of Agriculture, Hokkaido University
14:25-14:35	32293	Agricultural Management and Soil Leakiness: Drivers of Methane Oxidation and Nitrification	Ruchen Tian Netherlands Institute of Ecology (NIOO-KNAW)
14:35-14:45	35278	Microbial regulation of soil CO_2 and CH4 emissions during rewetting of degraded peatlands	Jiye Cai Northeast Normal University
14:45-14:55	35720	Belowground Cross-trophic Networks Impact CH4 and CO_2 Emissions in Degraded Alpine Peatlands	Dengbo Chen Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
14:55-15:05	36385	Iron-carbon coupling mechanisms during soil organic carbon dynamics under climate-change conditions in long-term biochar-amended soils	Haohua He Fudan University; EPFL
15:05-15:15	34530	Coupling of nocturnal water vapor and CO_2 uptake in arid soils: Comparative analysis from three arid soils	Thuc T. Nguyen The Jacob Blaustein Institutes for Desert Research, Ben-Gurion University of the Negev, 84990, Israel
16:30-16:45	35084	Slowing down the strong ammonia oxidation is the key to reduce N2O emission in alkaline agricultural soils	Xiaotang Ju Hainan University
16:45-16:55	33167	Coupling expression of nitrifying and denitrifying genes induce high N2O emissions in strong ammonia oxidizing soils	Xiaotong Song Chinese Academy of Sciences, Research Center for Eco-Environmental Sciences
16:55-17:05	34717	Organic amendments regulated the pattern and product stoichiometry of nitrate reduction processes in arable soils	Zhijun Wei Institute of Soil Science, Chinese Academy of Sciences

Parallel Sessions

Thursday, June 11 (Session 409007)			
17:05-17:15	33820	N2O fluxes after application of organic and mineral fertilizers to acidic tea soils in Kenya	Thomas Smith Cranfield University
17:15-17:25	319B89	A “naturally dominant” chemo-denitrification pathway drives N2O emissions in Tibetan glacier retreat zones	Lei Zhong School of Earth System Science, Tianjin University
17:25-17:35	36193	Mechanistic controls of nitrous oxide emissions revealed by flux-gradient measurements and site-specific incubations	Sarah Demers University of Saskatchewan
17:35-17:45	33305	Effects of Elevated CO2 Concentrations and Temperature on Soil Inorganic Nitrogen and Greenhouse Gas Emissions in Winter Wheat	Danni Lv Inner Mongolia Agricultural University
17:45-17:55	34456	Effect of soil structure on N2O production and emission	Baoxuan Chang Tianjin University
17:55-18:05	31891	Carbon Dioxide Emissions from Soil Can Serve as a Sustainable Characteristic of the Forest-Steppe Biome	Olga Sukhoveeva Institute of Geography, Russian Academy of Sciences

Parallel Sessions

Friday, June 12 (Session 409007)			
09:00-09:15	35280	Effect of soil structure on CO_2 production and emission	Zhifeng Yan Tianjin University
09:15-09:25	36153	Effects of Three-Dimensional Surface Area Correction on Soil CO_2 Flux and Biomass Accounting in a Gully Landscape	Peiyu Sun Northwest A&F University
09:25-09:35	34188	Microbial phosphorus cycling: A key driver of CO_2 emission in phosphorus-supplied subtropical forest soils	Muhammed Mustapha Ibrahim South China Botanical Garden, Chinese Academy of Sciences, Guangzhou, China
09:35-09:45	32862	Global Response and Mechanism of Methane Cycling in Wetlands Under Elevated Atmospheric CO_2 and Warming	Siyu Chen Research Center for Eco-Environmental Sciences; University of Chinese Academy of Sciences
09:45-09:55	34312	The Carbon-Iron Coupling Mechanism of Organic Carbon Turnover in the Rice Root Zone Under Redox Gradients	Yan Li Institute of Subtropical Agriculture, Chinese Academy of Science
09:55-10:05	31717	Understanding methane emission dynamics in temperate rice fields through systematic review and statistical modeling	Lucia Crosetto Department of Agricultural, Forest and Food Sciences, University of Torino
10:05-10:15	34629	Carbon Flux Responses of Rice Paddy to Coupled Heatwaves and Droughts in the Jianghan Plain	Xiaorui Liu Key Laboratory for Geographical Process Analysis and Simulation of Hubei Province, College of Urban and Environmental Sciences, Central China Normal University; Hubei Jianghan Plain Scientific Observation and Research Station of Farmland Ecosystem, Central China Normal University
10:15-10:25	35029	Contrasting warming responses of anaerobic microbial communities explain variation in methane Q10 across paddy soils	Ye Liu State Key Laboratory of Bioactive Substance and Function of Natural Medicines, Institute of Medicinal Plant Development, Chinese Academy of Medical Sciences & Peking Union Medical College, Beijing 100193, China
10:25-10:35	35129	Inhibition and the mechanisms of ethene on methanogen	Jingjing Wang Institute of Applied Ecology, Chinese Academy of Sciences

Parallel Sessions

Monday, June 8 Tuesday, June 9	Room: Convention Center, Nanjing 205
Session 409008	**Soil Carbon Dynamics and Impacts of Land Use and Management**
	Convener: Xiujun Wang, Shanxi Agricultural University, China **Co-Conveners:** Jianbin Zhou, Northwest A&F University, China Kazem Zamanian, Leibniz University, Germany

Schedule	ID	Title	Presenter
Monday, June 8			
16:30-16:45	31915	Cover crop quantity and quality jointly drive priming effects and new soil organic carbon formation across soil fertilization histories	Zhi Liang Department of Agroecology, Aarhus University
16:45-17:00	32562	The conversion of paddy to upland soils triggers the loss of soil organic carbon stocks by promoting Fe oxide crystallization	Dong Wu Hebei Academy of Agriculture and Forestry Sciences
17:00-17:15	34183	Impact of burning cessation on soil carbon stocks and organic matter fractions in semi-natural grasslands	Hajime Sakurada Graduate school of agriculture, Hokkaido University

Parallel Sessions

Monday, June 8 (Session 409008)			
17:15-17:30	33258	Soil carbon stocks and sequestration rates in Northern Irish grasslands	Selva Dhandapani Agri Food and Biosciences Institute
17:30-17:45	33938	Long-Term Variability of Peat Soil Properties and CO_2 Flux in a Planted Forest Ecosystem	Putri Oktariani IPB University; Indonesian Peat Community Association
17:45-18:00	34059	Effects of Eucalyptus robusta afforestation on soil carbon fractions and the underlying mechanisms	Xin Zhou Guangxi Normal University
18:00-18:15	36088	Tree proximity effects on soil organic carbon, bulk density and soil moisture in a dryland landscape	Ana Paula Ferreira de Brito School of Agriculture, Food and Wine, Faculty of Sciences, Engineering and Technology, The University of Adelaide, Waite Campus, Glen Osmond, SA 5064, Australia; CSIRO, Adelaide, SA, Australia
18:15-18:30	34657	Long-term impact of integrated crop-livestock-forest systems on soil organic carbon sequestration and edaphic health in the Brazil	Alberto C. de Campos Bernardi Embrapa

Parallel Sessions

Tuesday, June 9 (Session 409008)			
09:00-09:15	31842	Carbon-Nitrogen Dynamics and Soil Aggregation in Terrace Soil of Rice-Wheat Cropping System	Md. Mizanur Rahman Department of Soil Science, Gazipur Agricultural University
09:15-09:30	31878	Soil C and N storages response to land-use and management changes: A comparison of various plant-soil ecosystems in Eastern Japan	Cheng Weiguo Yamagata University Japan
09:30-09:45	32034	Land-use pattern influenced quality and climate-resilience of soil in the Brahmaputra valley at Himalayan foothill in India	Prabhat Pramanik NRM Division, ICAR - Indian Agricultural Research Institute
09:45-10:00	32545	Global response of soil organic carbon pools to land management and climate change	Shui-Qing Chen Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences","University of Science and Technology of China
10:00-10:15	32822	Soil Carbon-Nitrogen Pools in Different Land Use Types and Varying Time Scales: Implications for Soil Health and Sustainable Agriculture	Samuel Ayodele Mesele International Institute of Tropical Agriculture
10:15-10:30	33185	Linking the Chemical Composition of Soil Organic Carbon with the Formation, Stability, and Carbon Accumulation of Soil Aggregates under Divergent Land Uses	Kiattisak Sonsri Department of Soil Science, Faculty of Agriculture at Kamphaeng Saen, Kasetsart University, Kamphaeng Saen Campus, Nakhon Pathom 73140, Thailand
10:30-10:45	34539	Digging Deeper: Increasing Precision in quantifying Soil Organic Carbon Losses After Forest-to-Cultivated Land Conversion	Nastaran Chalabianlou University of Guelph
10:45-11:00	34997	Evaluating Carbon Stock Shifts Following Land-Use Change: Secondary Land to Plantation in Azamgarh, India	Jitendra Ahirwal Centre of Environmental Studies, University of Allahabad, Prayagraj- 211002, Uttar Pradesh, India

Parallel Sessions

Tuesday, June 9 (Session 409008)			
11:15-11:30	32520	Integration of artificial intelligence and remote sensing reflectance spectra for regional SOC Mapping	Yiping Wu Institute of Global Environmental Change, Xi'an Jiaotong University","School of Soil and Water Conservation, Central South University of Forestry and Technology
11:30-11:45	31639	Divergent carbon stabilisation pathways in Australian soils	Yijia Tang Sydney Institute of Agriculture & School of Life and Environmental Sciences, the University of Sydney
11:45-12:00	35188	Soil organic carbon stocks under no-tillage on farms in European Russia	Kristina Ivashchenko Institute of Physicochemical and Biological Problems in Soil Science, Russian Academy of Sciences
13:30-13:45	32980	Soil Acidification in the Anthropocene	Yakov Kuzyakov University of Goettingen
13:45-14:05	34731	Vulnerable Zone of Soil Inorganic Carbon Loss in Intensive Agricultural Regions	Zhou Jianbin College of Natural Resources and Environment, Northwest A&F University
14:05-14:25	31805	Biologically driven short-term inorganic carbon changes in calcareous soils	Rosa M Poch Universitat de Lleida","Universidad Pública de Navarra
14:25-14:40	32410	Dynamics of soil organic and inorganic carbon in aggregates under straw and biochar amendments	Amar Ali Adam Hamad Shanxi Agricultural University
14:40-14:55	32412	Coupling mechanism of soil organic carbon and inorganic carbon	Tongping Lu Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences
14:55-15:10	32408	Synergistic Relationships Between Soil Organic and Inorganic Carbon in North China's Croplands: A Mini-review and Prospective	Xiujun Wang Shanxi Agricultural University

Tuesday, June 9 (Session 409008)			
16:30-16:45	33452	Biochar-loaded NH+ 4-N effectively reduces carbon emissions by changing the composition of soil organic carbon and microbial community	Xuebo Zheng Tobacco Research Institute of Chinese Agricultural Sciences
16:45-17:00	33460	Contrasting microbial C dynamics under different long-term P fertilization regimes in non-allophanic Andosols.	Koizumi Wako Graduate School of Agricultural Science, Tohoku University Miyagi Japan
17:00-17:15	34764	Using Natural $\delta^{13}C$ Signature from Both Soil Profiles and Topsoils to Understand Organic Carbon Transformation in Mollisols (Phaeozems) of Northeast China	Kangning Geng Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
17:15-17:30	34789	Soil carbon dynamics and microbial associations across the soil profile under regenerative management in Northern California vineyards	Connie T. F. Wong Department of Land, Air and Water Resources, University of California, Davis, CA, USA
17:30-17:45	35135	Trade-offs between soil organic carbon input and mineralization driven by high-level phosphorus fertilization: 30-year field evidence	Jianguo Li College of Resources and Environment, Interdisciplinary Research Center for Agriculture Green Development in Yangtze River Basin, Southwest University
17:45-18:00	151705	Initial organic carbon content controls the depth-dependent soil organic carbon responses to liming	Yang Li Sichuan Agricultural University

Parallel Sessions

Friday, June 12	Room: Expo Center, Hall 5, 5202
Session 409009	**Soil Carbon Fluxes for Climate and Soil Health** **Convener:** Yafei Li, Agroecology and Environment, Agroscope, Switzerland **Co-Conveners:** Yuqiao Wang, Henan Agricultural University, China Ruikun Gou, Northwest Agricultural and Forestry University, China

Schedule	ID	Title	Presenter
09:00-09:05	-	Session Introduction	Conveners
09:05-09:20	32314	Management practices to mitigate long-term soil organic carbon losses in temperate arable soils	Martin Wiesmeier Bavarian State Research Center for Agriculture
09:20-09:35	31767	A model-based tool for supporting sustainable management of soil organic carbon in Swiss croplands	Yafei Li Agroecology and Environment, Agroscope, Zürich
09:35-09:50	34904	Soil Carbon Fluxes in Agroecosystems with Annual and Perennial Grasses in the Moscow region of Russia	Svatlana Kulachkova Lomonosov Moscow State University
09:50-10:05	33659	Contrasting effects of inorganic vs. organic nitrogen deposition on soil respiration: Evidence from a 10-year field experiment	Lili Dong Shenyang Agricultural University; Chinese Academy of Sciences
10:05-10:20	32574	Blue Carbon Stocks in Brazilian Mangroves	João Pedro Coumendouros Scott Federal Rural University of Rio de Janeiro
10:20-10:35	32690	Mangrove Biomass and Soil Carbon Stocks: Spatial Approach in the Cananéia Region	Anjos, L.H.C dos Department of Soils, Institute of Agronomy, Federal Rural University of Rio de Janeiro
10:35-10:50	33484	How temperature controls methane fluxes and methanogenic pathways at polygonal tundra of Samoylov Island in the Lena River Delta (Northern Siberia)	Nikita B. Ustinov Laboratory of Greenhouse Gases, A.M. Obukhov Institute of Atmospheric Physics, RAS, Moscow, Russia

Parallel Sessions

Friday, June 12 (Session 409009)			
11:15-11:30	34294	Greenhouse Gas Fluxes and Their Environmental Drivers in a Coastal Peatland of the Kamchatka Peninsula	Liudmila A. Krivenok A.M. Obukhov Institute of Atmospheric Physics, RAS, Moscow, Russia
11:30-11:45	36265	Linking Seasonal Controls and Biological Degradation in the Chihuahuan Desert, Mexico	Dulce Flores-Renteria SECIHTI-Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional, Unidad Saltillo, Ramos Arizpe, Mexico; Laboratorio Nacional MexFlux, Monitoring of Greenhouse Gases in Ecosystems. Sede regional Saltillo, México.
11:45-12:00	34492	Evaluating global soil carbon sequestration and loss: an expert assessment of their role in climate mitigation and adaptation	Budiman Minasny College of Science and Engineering, James Cook University, Cairns, Queensland, Australia
12:00-12:15	33060	Soil carbon fluxes as indicator of Healthy urban soils in a Mediterranean city	Teresa Alía Soil Science Unit, Chemistry in Pharmaceutical Science Department. Universidad Complutense de Madrid.

Parallel Sessions

Thursday, June 11 Friday, June 12	Room: Convention Center, Nanjing 402A
Session 409010	**Soil microbial life and death: impacts on soil organic carbon dynamics under global change**
	Convener: Qing-Fang Bi, Max-Planck Institute for Biogeochemistry, Jena, Germany **Co-Conveners:** Alberto Canarini, Department of Biological, Geological and Evironmental Science, University of Bologna, Bologna, Italy Xiuli Hao, Huazhong Agricultural University, Wuhan, China Ke-Qing Xiao, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences Yuting Liang, Institute of Soil Science, Chinese Academy of Sciences, Nanjing, China

Schedule	ID	Title	Presenter
Thursday, June 11			
11:15-11:20	-	5-minute convener introduction	-
11:20-11:35	32195	Global viral auxiliary metabolic genes drive carbon sequestration under climate change	Mao Ye Institute of Soil Science, Chinese Academy of Sciences (Nanjing)
11:35-11:50	34154	Viral mediation of microbial turnover governs soil organic matter allocation	Weigen Huang State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences, Nanjing, China

Parallel Sessions

Thursday, June 11 (Session 409010)			
13:30-13:35	-	5-minute convener introduction	-
13:35-14:05	34639	Microbes as engineers in modulating and preserving soil organic carbon	Qiaoyun Huang Huahzhong Agricultural University
14:05-14:20	34562	Pathway-aware microbial phosphorus traits predict carbon-use efficiency and soil organic carbon turnover across urban gradients	Bangxiao Zheng Xiamen University of Technology
14:20-14:35	34170	Protist predation shifts bacterial life strategies and increases carbon use efficiency across contrasting soils	Silin Ma National Key Laboratory of Agricultural Microbiology, Huazhong Agricultural University, Wuhan, China.
14:35-14:50	35052	Microbial respiration, growth, and CUE - The roles of Land use, management, and environmental factors	Jarin Jose Max Planck Institute for Biogeochemistry (MPI-BGC), Jena, Germany
14:50-15:05	35876	Microbial growth rate is a stronger predictor of soil organic carbon than carbon use efficiency	Xianjin He South Chian Botanical Garden, Chinese Academy of Sciences

Parallel Sessions

Thursday, June 11 (Session 409010)			
16:30-16:45	34421	Response of Microbial Necromass and Extracellular Polymeric Substances under Multifaceted Global Change	Ke Shi German Centre for Integrative Biodiversity Research (iDiv) Halle-Leipzig-Jena, Puschstr. 4, 04103 Leipzig, Germany; Department of Biology, Leipzig University, Puschstr. 4, 04103 Leipzig, Germany; Department of Ecology, Co-Innovation Center for Sustainable Forestry in Southern China, Nanjing Forestry University, Nanjing, 210037, China
16:45-17:00	34600	From expansion to endurance: persistent warming reshapes soil active microbial communities in forest ecosystems	Jieying Wang NorthwestUniversity
17:00-17:15	34364	Thermal adaptation reshapes soil microbial carbon use efficiency under prolong warming	Lingrui Qu Institute of Applied Ecology, Chinese Academy of Sciences
17:15-17:30	33259	Soil microbial community structure and soil carbon dynamics in fields and hedgerows of Northern Irish Grasslands	Selva Dhandapani Agri Food and Biosciences Institute
17:30-17:45	33934	Soil microbial life-history strategies covary with ecosystem multifunctionality across aridity gradients	Tao Zhou NORTHEAST FORESTRY UNIVERSITY

Parallel Sessions

Friday, June 12 (Session 409010)			
09:00-09:05	-	5-minute convener introduction	-
09:05-09:30	32278	Multi-Scale Evidence for Declining Microbial Carbon Fixation Along Forest Succession Gradients	Shu-Yi-Dan Zhou South China Botanical Garden, Chinese Academy of Sciences
09:30-09:45	34405	Influence of nitrogen fertilization and cover crops on soil microbial dormant fraction	Simeng Wang Northwest University
09:45-10:00	34347	Microbial Enhancement of Soil Inorganic Carbon and Its Synergy with Organic Carbon Stabilization	Yishu Hu Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences; Sino-Danish College, University of Chinese Academy of Sciences; Department of Plant and Environmental Sciences, University of Copenhagen, Thorvaldsensvej 40, Frederiksberg 1871, Denmark
10:00-10:15	34834	Vertical distribution and controlling factors of soil microbial necromass carbon (MNC) under erosion-deposition processes	Qilin Yang Huazhong Agricultural University
10:15-10:30	34041	Microbial sequestration pathways of soil organic carbon in meadow steppes under long-term nitrogen and phosphorus application: Analysis based on aggregate scale residual carbon	Zhendan Wu Inner Mongolia Agricultural University
10:30-10:45	32141	Unlocking Carbon Management Sustainability by Quantifying Microbial Necromass and SOC Asynchrony	Xuefeng Zhu Institute of Applied Ecology, Chinese Academy of Sciences (Shenyang)
10:45-11:00	33849	Fenton reaction facilitates chitin degradation and nitrogen acquisition in the ectomycorrhizal fungus Suillus luteus	Bowen Zhang Centre for Environmental and Climate Science, Lund University; Research Center for Mountain Environment and Ecological Security, Institute of Mountain Hazards and Environment, Chinese Academy of Sciences

Parallel Sessions

Friday, June 12 (Session 409010)			
11:15-11:30	32444	Patterns and drivers of soil microbial residue carbon responses to precipitation changes in grassland ecosystems	Yingchao Yu Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences; University of Chinese Academy of Sciences
11:30-11:45	34013	Resolving the microbial processes underpinning necromass pools across landuses	Yao LI Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
11:45-12:00	34206	Clay-organic matter interactions drive microbial necromass preservation in soils	Xu Wang Institute of Applied Ecology, Chinese Academy of Sciences
12:00-12:15	34269	Soil organic matter persistence emerges from recursive microbial necromass and mineral feedbacks	Bin Zhang Nanjing Agricultural University

Parallel Sessions

Monday, June 8 Tuesday, June 9	Room: Convention Center, Nanjing 202
Session 409011	**Soil Organic Matter Transformation, Stabilization and Storage**
	Convener: Claudio Zaccone, Dept. of Biotechnology, University of Verona, ITALY **Co-Conveners:** Boris Jansen, University of Amsterdam, Institute for Biodiversity and Ecosystem Dynamics, Amsterdam, THE NETHERLANDS Cesar Plaza, Consejo Superior de Investigaciones Científicas, Instituto de Ciencias Agrarias, Madrid, SPAIN

Schedule	ID	Title	Presenter
Monday, June 8			
13:15-13:30	32582	Soil Carbon Dynamics and the Observer Effect	Ronald Amundson University of California, Berkeley
13:30-13:45	32655	Toward a standardized and ecologically relevant framework for soil organic matter physical fractionation	Xinnan Li Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
13:45-14:00	31863	Multi-element evidence that soil organic matter persistence is not attributed to selective preservation or loss but an ecosystem property	Wenxiang Zhou The University of Queensland, School of Agriculture and Food Sustainability
14:00-14:15	34515	Ancient radiocarbon-free organic carbon as a pervasive bias in soil ^{14}C-based turnover estimates	Yoann COPARD Univ Rouen Normandie, Université Caen Normandie, CNRS, Normandie Univ, M2C UMR 6143, F-76000 Rouen, France

Parallel Sessions

Monday, June 8 (Session 409011)			
14:15-14:30	35265	A mechanistic investigation into the influence of mineral surface carbon loading on the formation of soil organic carbon	YaLu Wang Institute of Mountain Hazards and Environment, Chinese Academy of Sciences; University of Chinese Academy of Sciences
14:30-14:45	36149	The Interaction between Mineral Transformation and Mineral-Associated Organic Matter (MAOM) Degradation	Jiahui Wu University of Vienna, Division of Environmental Geosciences, Vienna, Austria
14:45-15:00	34745	Particulate pathway dominates mineral-associated organic matter formation and transformation	X. Chen Anhui Agricultural University
15:00-15:15	32719	Controls on the mineralization and stabilization of exogenous organic matter in volcanic soils	Dalin Wang Kyoto University
16:30-16:45	33711	^{13}C tracing reveals organo-mineral regulation of carbon stabilization under ambient and elevated CO_2 levels	Lukas Van Zwieten NSW Department of Primary Industries and Regional Development
16:45-17:00	34337	Dual and divergent formation pathways govern the composition and origins of mineral-associated organic carbon	Mengqiang Zhu University of Maryland College Park; University of Wyoming
17:00-17:15	36470	Soil Erosion and Organic Matter Stabilization Mechanisms	Xiang Wang China Agricultural University
17:15-17:30	33634	Manganese oxides direct polyphenol carbon toward abiotic polymerization or oxidative decomposition: Effect of pH and molecular structure	Hui Li Department of Crop and Soil Sciences, North Carolina State University
17:30-17:45	32377	Ferrihydrite-mediated carbon stabilization and plant responses in an alkaline soil	Zeinab Ghasemzadeh The University of Adelaide
17:45-18:00	35062	Iron oxides promote stable soil organic carbon sequestration in rice paddies	So Yeong Park Division of Applied Life Science (BK21), Gyeongsang National University, Jinju, Republic of Korea
18:00-18:15	36538	Iron-Mediated Carbon Dynamics in Coastal Wetlands under Seawater Intrusion	Chunmei Chen Tianjin University
18:15-18:30	33518	Hydrothermal-driven iron reduction-mineralization and organic carbon sequestration	Liulong Cheng South China Agricultural University

Parallel Sessions

Tuesday, June 9 (Session 409011)			
09:00-09:15	31817	Roots enhance the accrual of mineral-associated organic carbon via new carbon formation and microbial conversion of native soil carbon	Juan Jia State Key Laboratory of Forage Breeding- by- Design and Utilization, Key Laboratory of Vegetation and Environmental Change, Institute of Botany, Chinese Academy of Sciences
09:15-09:30	31819	Organic acid-mediated destabilization overrides warming effect on soil carbon mineralization	Xiaojuan Feng State Key Laboratory of Forage Breeding-By-Design and Utilization, and Key Laboratory of Vegetation and Environmental Change, Institute of Botany, Chinese Academy of Sciences
09:30-09:45	32001	Insights from soil-aggregate microbiome and in-field soil respiration for improved carbon sequestration assessment of land use practices	Anil Somenahally Texas A&M AgriLife Research
09:45-10:00	32666	Organic materials combined with microbial inoculants suppress priming effect and enhance SOC sequestration in sandy soil	Xiaohong Tian College of Natural Resources and Environment, Northwest A&F University
10:00-10:15	35962	Microbial mediation of deep soil inorganic carbon accumulation under long-term straw return in alkaline agricultural soils	Jianying Shang China Agricultural University
10:15-10:30	35198	Fresh Plant Residues Drive Fungal Necromass Carbon Turnover to Stabilize Organic Carbon throughout the Soil Profile	Dabin Zhang College of Natural Resources and Environment, Northwest A&F University
10:30-10:45	33285	Discovering the molecular basis for carbon storage in soil for food security and climate change mitigation	Wanyue Zhao University of Bristol
10:45-11:00	32758	Amplifying the soil mineral pump for carbon sequestration	Ke-Qing Xiao Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences

Parallel Sessions

Tuesday, June 9 (Session 409011)			
11:15-11:30	35162	Tree species traits interact with site properties to shape soil organic matter composition	Delphine Derrien INRAE, BEF, F-54000 Nancy, France; (11)\tINRAE, Institut Agro, SAS, 35000 Rennes, France
11:30-11:45	32593	Rapid soil formation and carbon accumulation along a Little Ice Age soil chronosequence in southeast Alaska	Diogo Spinola University of Northern British Columbia
11:45-12:00	33528	Controls on Temperature Sensitivity of Soil Organic Carbon Decomposition Along a Volcanic Elevation Gradient in California	Ze Jingwen Graduate School of Agriculture, Kyoto University, JAPAN; Institute of Agriculture, Tokyo University of Agriculture and Technology, JAPAN; Faculty of Agriculture, Tokyo University of Agriculture and Technology, JAPAN; Department of Land, Air and Water Resources, University of California, USA
12:00-12:15	33752	Conversion of coastal marshes to croplands shifts the pool, composition and functional groups of soil organic matter	Yidong Wang, Wei Xu, Qiang Li Tianjin Normal University
13:30-13:45	33145	Global warming and soil management impact on organic carbon stocks and dynamics in vineyard soils	Giorgio Galluzzi Department of Biotechnology, University of Verona
13:45-14:00	35145	Assessment of carbon stock, stabilization, and soil aggregate structure in different Mediterranean agro-ecosystems	Martina Grattacaso Research Institute on Terrestrial Ecosystems (IRET), National Research Council (CNR), Via Madonna del Piano 10, 50019 Sesto Fiorentino, Italy; Department of agricultural, food, environmental and forestry science and technology (DAGRI), University of Florence, Piazzale delle Cascine 18, 50144 Firenze, Italy
14:00-14:15	32669	Reframing Manure Amendments and Nitrogen Inputs as Co-Determinants of Persistent Soil Organic Carbon in Semi-Arid Agroecosystems	Xiangtian Meng College of Natural Resources and Environment, Northwest A&F University

Parallel Sessions

Tuesday, June 9 (Session 409011)			
14:15-14:30	32514	Long-term organic amendment in a maize cropping system enhanced CO2 emissions via stimulation of oligotrophic microbial decomposition of chemically recalcitrant dissolved organic matter compounds	Hongqin Zou Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences, Beijing
14:30-14:45	32579	A repeat-pulse field labeling study to trace the fate of 13C and 15N labelled canola and durum crop residues in plant and soil organic matter on the Canadian Prairies	Hongjie Zhang Swift Current Research and Development Centre, Agriculture and Agri-Food Canada
14:45-15:00	32681	Molecular signatures of soil organic matter diverge under long-term manure versus straw amendments in agricultural Mollisols	Meng Zhou, Yang Xiao, Yansheng Li, Xiaobing Liu Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
16:30-16:45	32802	Straw incorporation stimulated the intercropping effect to enhance soil carbon sequestration	Yi-Wen Zhao China Agricultural University
16:45-17:00	36109	Application of Clay and Iron Oxide-Amended Compost: Linking Emission Reductions to Enhanced Soil Aggregation, Necromass, and Plant Performance	Benedikt Boppré Utrecht University; NIOO-KNAW
17:00-17:15	35151	From waste to carbon sink: mineral-organic coupling in technosols	Yujia Tang SichuanUniversity
17:15-17:30	32889	The Long-Term Impact of Excess Phosphorus Saturation on Soil Organic Carbon Sequestration in Agricultural Soils	Marie Tuerlinckx Ghent University
17:30-17:45	34264	Soil organic matter formation from high P organic amendments	Mario Alvarez Salas University of Copenhagen
17:45-18:00	36174	Rapid versus delayed stabilization of residue-derived carbon by amorphous aluminum hydroxide and rice-husk biochar in alkaline soils	Tetsuhiro Watanabe Kyoto University
18:00-18:15	35659	Effects of silicon modified biochar with different pyrolysis temperatures on carbon stabilization pathways in saline alkali soil	Xin Gao Qingdao Agricultural University
18:15-18:30	36062	Sewage Sludge Biochar Is Less Persistent Than Plant-Based Biochars in Soil	Haichao Li Department of Soil and Environment, Swedish University of Agricultural Sciences, Uppsala, Sweden; Institute of Crop Science and Resource Conservation, University of Bonn, Bonn, Germany

Parallel Sessions

Thursday, June 11 Friday, June 12	Room: Convention Center, Nanjing 402B
Session 409012	**The Challenge and Opportunity for Precise Assessment and Prediction of Soil Carbon Sequestration and Storage Across Spatial and Temporal Scales** **Convener:** Aizhen Liang, Northeast Institute of Geography and Agroecology, CAS **Co-Conveners:** Michael Thompson, Iowa State University William Horwath, University of California, Davis Zhongjun JIA, Northeast Institute of Geography and Agroecology, CAS

Schedule	ID	Title	Presenter
Thursday, June 11			
Chair: Michael Thompson, Past President of SSSA			
11:15-11:35	34444	How spatial resolution shapes soil carbon estimates	Michael Thompson Iowa State University
11:35-11:55	35013	Climate-vegetation interactions regulate decadal dynamics of soil organic carbon fractions across Europe	Yuntao Wu Zhejiang University
11:55-12:10	32801	Microscale soil organic matter patches shaped by carbon- and nitrogen-rich microdomains	Yahan Hu TUM School of Life Sciences, Technical University of Munich

Parallel Sessions

Thursday, June 11 (Session 409012)

Chair: Aizhen Liang, Northeast Institute of Geography and Agroecology, CAS

13:30-14:00	35371	Soil carbon sequestration: Realism versus potential	William R. Horwath University of California Davis
14:00-14:30	33228	Long-term field trials as a tool to evaluate the potential of fertilizers to maintain soil carbon persistence	Evgenia Blagodatskaya Department of Ecology of Agroecosystems, Helmholtz Centre for Environmental Research - UFZ
14:30-14:45	36110	Cultivation management reshapes soil profile configuration and organic carbon sequestration: Evidence from a 45-year field study	Si-Yu Cui Shenyang Agricultural University
14:45-15:00	32987	An approach to carbon credit finance feasibility assessment of SOC sequestration projects	Andrei Rozanov Stellenbosch University
15:00-15:15	34428	Estimating sequestration potentials of soil organic carbon in black soils of Northeast China	Jiubo Pei Shenyang Agricultural University

Parallel Sessions

Thursday, June 11 (Session 409012)			
Chair: Evgenia Blagodatskaya, Department of Ecology of Agroecosystems Helmholtz Centre for Environmental Research - UFZ			
16:30-17:00	34727	An integrated framework combining spatial soil carbon information and a calibrated Roth C model for improving cropland SOC estimation	Kyeongyeong kim National Institute of Agricultural Sciences, Republic of Korea
17:00-17:15	34162	Impact of long-term tillage on the soil organic carbon storage and its composition in black soil	Pengxiang Sui Jilin Academy of Agricultural Sciences (Northeast Agricultural Research Center of China)
17:15-17:30	31858	How no-tillage and cropping systems shape soil organic carbon formation and stabilization over time: Evidence from a 16-year chronosequence	Yan Zhang Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
17:30-17:45	32207	Equilibrium levels for SOC stocks under different environmental regimes	Jonathan Gray Retired (formerly NSW Dept Planning & Environment)
17:45-18:00	36017	Driving factors and spatiotemporal variations of soil organic carbon in the Northeast China Plain	Honghong Ma Institute of Geophysical and Geochemical Exploration, Chinese Academy of Geological Sciences
18:00-18:15	36504	From diagnosis to management: informing low-carbon policy for tea plantations in Jiangsu, China	Xiao Han School of Tea and Food Science and Technology, Jiangsu Vocational College of Agriculture and Forestry
18:15-18:30	33354	Enhancing soil carbon sequestration and straw utilization through optimized microbial decomposition strategies	Shuaimin Chen Jilin Academy of Agricultural Sciences

Parallel Sessions

Friday, June 12 (Session 409012)			
Chair: William Horwath, UC Davis			
09:00-09:30	35588	Dynamics of soil organic carbon and its mineralization in black soils of Northeast China	Lu-Jun Li Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
09:30-10:00	33320	Coupling of microbial carbon and energy fluxes in soil	Sergey Blagodatsky Karlsruhe Institute of Technology
10:00-10:15	35356	The carbon sequestration potential of arable soils in Russia based on dynamic modeling	Vladimir A. Romanenkov Soil Science Faculty, Lomonosov Moscow State University, Moscow, Russia; Pryanishnikov Research Institute of Agrochemistry, Moscow, Russia
10:15-10:30	35012	Using a historical a soil properties database (INFOSOLO) to analyse long-term variations in SOC, SOC fractions, and soil structure: a case study	J. Antunes LEAF —Linking Landscape, Environment, Agriculture and Food Research Center, Associate Laboratory TERRA, School of Agriculture, University of Lisbon, Lisboa, Portugal ; National Institute for Agricultural and Veterinary Research (INIAV), Soil Lab, Oeiras, Portugal
10:30-10:45	36133	Reconstructing rangeland soil carbon erosion using sediment trapped behind small reservoir dams	LU LI University of Basel
10:45-11:00	33746	Latitude-dependent temperature thresholds reverse soil organic carbon losses in global Mollisol croplands	Xiangtian Meng Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences

Parallel Sessions

Friday, June 12 (Session 409012)

Chair: Xiaobin Guo, Institute of Subtropical Agriculture, CAS

11:15-11:30	33883	Field experiment reveals varied earthworm densities boost soil organic carbon more than they increase carbon dioxide emissions	Ronggui Tang Zhejiang A&F University
11:30-11:45	33087	Straw return depth and tillage intensity drive changes in organic carbon fractions and their stability in black soil	Lei Zhang Northeast Institute of Geography and Agroecology Chinese Academy of Sciences
11:45-12:00	34273	Stover incorporation enhances soil carbon sequestration by improving the hydrophobicity of humic acid and soil water repellency	Boyan Zhang Jilin Agricultural University
12:00-12:15	34173	Soil biogeochemical models current applications and future directions	Wenjun Wang Northeast Institue of Geography and Agroecology, Chinese Academy of Sciences

Parallel Sessions

Thursday, June 11	Room: Expo Center, Hall 5, 5203
Session 409014	**Soil Organic Carbon: Accounting, Mechanisms, and Sustainable Management** **Conveners:** Jianming Xu, Zhejiang University, China Yanfen Wang, University of the Chinese Academy of Sciences (UCAS), China **Co-Conveners:** Johannes Lehmann, Cornell University, USA Yu Luo, Zhejiang University, China Yash Dang, University of Queensland, Australia Jianqing Du, University of the Chinese Academy of Sciences (UCAS), China Songchao Chen, Zhejiang University, China Anquan Xia, Development and Research Center (National Geological Archives of China), China Geological Survey, Beijing, 100037, China Francesco Fava, Department of Environmental Science and Policy, Università degli Studi di Milano, Via Celoria 2, Milan, Italy Tong Li, University of Queensland, Australia Kai Xue University of the Chinese Academy of Sciences (UCAS), China

Schedule	ID	Title	Presenter
11:15-11:30	34134	A simple gravimetric proxy for rapid, low-cost estimates across diverse subtropical soils	Jeff Ellis Griffith University, School of Environment and Science, Australian Rivers Institute
11:30-11:45	34351	Biochar at scale needs long-term proof: LTE field trials supporting the green transition of Danish agriculture	Lars Elsgaard Department of Agroecology, Aarhus University, Tjele, Denmark

Parallel Sessions

Thursday, June 11 (Session 409014)			
11:45-12:00	31698	Enhancing spectral estimation accuracy of soil organic carbon by using geographic region and clay content as covariates	Wenxu Zhang College of Agriculture, Shihezi University
12:00-12:15	32076	Integration of Smartphone Imagery with Topographic Parameters for Soil Organic Carbon Prediction in the Indo-Gangetic Plains: An Interpretable Machine Learning Approach	Pragati Pramanik Maity ICAR-Indian Agricultural Research Institute
13:30-13:45	32425	Differences in the physical protection mechanisms of soil organic carbon with 13C-labeled straw and biochar	Caidi Yang Northwest University
13:45-14:00	33645	Engineered biochar amendments to address multiple soil constraints: Results from 12 field studies	Lukas Van Zwieten NSW Department of Primary Industries and Regional Development
14:00-14:15	32473	The influence of natural and anthropogenic pyrogenic history of the landscape on soil carbon stocks on example of Komi Republic	Alexey Dymov Institute of Biology Komi Scientific Center, Ural Branch of the RAS
14:15-14:30	32581	Underestimating Soil Carbon Dynamics: The Missing Role of Vertical Transport	Ronald Amundson University of California, Berkeley
14:30-14:45	33199	A long-term global Mollisols SOC content prediction framework: integrating prior knowledge, geographical partitioning, and deep learning models with spatio-temporal validation	Xiangtian Meng Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
14:45-15:00	33242	Field NIR Spectroscopy for Soil Carbon Monitoring in Hazelnut Orchards	Leonardo Pace University of Tuscia

Thursday, June 11 (Session 409014)			
16:30-16:45	32445	Recognizing and Reducing Effects of Moisture-Salt Coexistence on Soil Organic Matter Spectral Prediction：From Laboratory to Satellite	Danyang Wang Nanjing Agricultural University
16:45-17:00	34034	Can we grow food on the Moon? Engineering biological systems in lunar regolith	Katherine Weigh Department of Primary Industries and Regional Development, NSW
17:00-17:15	34723	Life Cycle Assessment of Traditional Japanese Thatched Roofs with Biochar End-of-Life Integration: Implications for Carbon Mitigation	Tawiah Joseph Kotey Graduate School of Science and Technology, University of Tsukuba, Ibaraki, Tsukuba Japan
17:15-17:30	35729	Intercropping to Enhance Agricultural Production and Increase The Level of Carbon in The Soil	Juline Diken Malounghou Bounangnan Laboratory of Biotechnology, Agri-food, Materials and Environment, Faculty of Science and Technology, Hassan II University of Casablanca, Morocco 2 Higher Institute of Agronomy and Biotechnology, University of Science and Technology of Masuku, Gabon
17:30-17:45	35772	Uncertainty of Vis-NIR-based models for predicting soil organic carbon using Monte Carlo simulation	Po-Hui Wu Department of Agricultural Chemistry, National Taiwan University, Taipei 10617, Taiwan
17:45-18:00	31616	Mid-Infrared Spectroscopy for Soil Organic Carbon Estimation: Global Insights and Case Studies	Tong Li The University of Queensland
18:00-18:15	35854	Innovation and Application of Targeted Humification of Agricultural Wastes and Targeted Soil Improvement Technologies	Wei Dan Beijing Academy of Agriculture and Forestry Sciences

Parallel Sessions

Thursday, June 11	Room: Expo Center, Hall 6, 6201
Session 502002	**From Dirt to Destiny: Communicating Soil Science for Global Sustainability and Cultural Understanding** **Convener:** Neng-Chang Chen, Institute of Eco-environmental and Soil Sciences, Guangdong Academy of Sciences **Co-Convener:** Yuan-Ming Song, University of Science and Technology Beijing

Schedule	ID	Title	Presenter
11:15-11:30	319B50	Soil Survey in Modern China from the Perspective of Sino-American Academic Exchange: A Case Study of the University of Nanking and the Geological Survey of China	Yongguan ZHU Research Center for Eco-environmental Sciences, Chinese Academy of Sciences
11:30-11:45	34880	On Shishi Wanwusheng Soil Science Communication Hall	Zaifa Dong Shishi Wanwusheng Soil Science Communication Hall
11:45-12:00	34469	From Soil to Screen: Storytelling and Digital Media to Boost Soil Literacy	Stephan Mantel ISRIC World Soil Information, Wageningen, the Netherlands
12:00-12:15	31997	Soil as Component of Ancient Adobe, Mudbricks, Mortar, and Plaster: Investigation of Engineering Structures of The Past in Oman	Said Al-Ismaily Department of Soils, Water and Agricultural Engineering, Sultan Qaboos University
12:15-12:30	36178	Soil aesthetics in the popularization of soil science	Maria Chepurnova Lomonosov Moscow State University

Parallel Sessions

Thursday, June 11 (Session 502002)			
13:30-13:45	33410	Optimal Organic Amendment Strategies for Safe Utilization of Heavy Metal-Contaminated Soils via Interpretable Machine Learning and Multi-Objective Optimization	Qifeng Min Agro-Environmental Protection Institute, Ministry of Agriculture and Rural Affairs
13:45-14:00	34849	Past, Present and Perspective of Soil Science Communication in China	Nengchang CHEN Guangdong Institute of Eco-Environmental and Soil Sciences
14:00-14:15	33306	Analysis and Exploration on the Paths of Experiential Soil Science Popularization towards Primary School Students	Chen-yang Xu Northwest A&F University
14:15-14:30	34987	Siliceous restrictive layer: a new soil constraint in Northeast China's Black Soil Region	Zhong-Xiu Sun Shenyang Agricultural University
14:30-14:45	34413	“Fertile Land with Childlike Heart”-Science Popularization Action of Little Guardians for Soil Protection	Nan Zhao Institute of Eco-environmental and Soil Sciences, Guangdong Academy of Sciences
14:45-15:00	34990	Biochar-based fertilizers alter the ecological components of organic carbon in the soil aggregates of red soil tea gardens	Junming Hu Guangxi Academy of Agricultural Sciences
15:00-15:15	34080	From Soil Healing to System Thinking: Repositioning Sustainability through Nature's Logic	Enheng Wang Northeast Forestry University
15:15-15:30	36546	Performance: Open Hands	Cristina Angueira Soil consultant, Former Soil researcher INTA
15:30-15:45	330B03	Addressing the pains of chemical agriculture with traditional farming wisdom	Yuyan Guo Nanjing Forestry University
15:45-16:00	35282	How Can Traditional Farming Wisdom Address the Challenges of Modern Chemical Agriculture? - Qinbang Farm's Model in Practice	Yuyan Guo Nanjing Forestry University

Parallel Sessions

Tuesday, June 9	Room: Expo Center, Hall 6, 6201
Session 503005	**The Digital Transformation of Soil Science** **Conveners:** Richard J Heck, University of Guelph, Canada Fernando Ayala Niño. Laboratorio de edafología aplicada y Servicios Ambientales Unidad de Biotecnología y Prototipos (UBIPRO). Facultad de Estudios Superiores Iztacala-UNAM. Tlalnepantla de Baz Estado de México, México Giuliano Langella, Department of Agriculture, University of Naples Federico II, Piazza Carlo di Borbone 1, 80055 Portici NA, Italy **Co-Conveners:** Fabio Terribile, Università di Napoli Federico II, Italy Francisco Bautista. Centro de Investigación en Geografía Ambiental, Universidad Nacional Autónoma de México-UNAM, Morelia 58190, Michoacán, Mexico Héctor Estrada-Medina. Campus de Ciencias Biológicas y Agropecuarias. Universidad Autónoma de Yucatán. Mérida 97315, Yucatán, México Piero Manna, Institute for Mediterranean Agricultural and Forestry Systems (ISAFOM), National Research Council (CNR), Piazzale E. Fermi, 1, Portici, NA, 80055, Italy Marialaura Bancheri, Institute for Mediterranean Agricultural and Forestry Systems (ISAFOM), National Research Council (CNR), Piazzale E. Fermi, 1, Portici, NA, 80055, Italy

Schedule	ID	Title	Presenter
09:00-09:05	-	Welcoming mesage	-
09:05-09:17	31890	Classifying Soils with Artificial Intelligence	Estrada-Medina Héctor Universidad Autónoma de Yucatán

Parallel Sessions

Tuesday, June 9 (Session 503005)			
09:17-09:29	32002	Artificial Intelligence Assisted Soil Description and Inference	Sandra Evangelista The University of Sydney
09:29-09:41	32200	Mixed reality for soils monoliths: an example from the National Museum of Soils of Mexico	Fernando Ayala-Niño Laboratorio de Edafología Aplicada y Servicios Ambientales, UBIPRO. Facultad de Estudios Superiores Iztacala-UNAM
09:41-09:53	32268	Technology in Soil Science Education in the 21st Century: Web, Software, and Apps for Generation Z	Francisco Bautista and Angeles Gallegos Centro de Investigaciones en Geografía Ambiental, Universidad Nacional Autónoma de México.
09:53-10:05	32613	The Algorithmic Lens: Unraveling Soil Structure with Artificial Intelligence	Yongwei Fu China Agricultural University
10:05-10:17	32836	Machine learning-based prediction of plant-available nutrients in soils using multiple variable selection strategies	Seung Jun Lee Chung-buk National University
10:17-10:29	33599	Automatic segmentation of soil micromorphological images using a Convolutional Neural Network	Komkova Daria Federal Research Centre V.V. Dokuchaev Soil Science Institute, Moscow, Russia
10:29-10:41	33640	AI Enabled Soil Moisture Monitoring for Real Time Drought Detection in the Western United States	John Blackwell Colorado State University
10:41-10:53	33969	AI-Driven Data Mining of Scientific Literature: A Framework for Soil Research	Yikang Cheng Nanjing TAG-HUB Innovation Technology Co., Ltd.
10:53-11:05	34931	SpecSINFERS: Soil Inference Systems in the AI era	José Padarian The University of Sydney

Parallel Sessions

Tuesday, June 9 (Session 503005)			
11:12-11:24	34132	3D Two-stage Multi-modal Soil Pore Segmentation based on Flow Field	Yinkai Fu School of Technology, Beijing Forestry University
11:24-11:36	34165	Multi-Class Segmentation of Soil Structure from CT Images based Deep Learning	Zihan Huang Beijing Forestry University
11:36-11:48	34477	AI-Assisted Applications for Soil Science Education: Tools for Teaching and Learning	Héctor Estrada-Medina Autonomous University of Yucatán
11:48-12:00	35074	Segmentation of soil structural domains in thin-section images a deep learning approach	Carlo Perreca University of Naples Federico II - Department of Agricultural Sciences
12:00-12:12	35833	Precise Source Apportionment and Spatial Distribution Prediction of Soils Heavy Metals Pollution in the Largest Magacity in China Based on Multi-source Data and Machine Learning	Lian Wang Shanghai Academy of Agricultural Sciences
12:12-12:30	-	General comments	-

Parallel Sessions

Monday, June 8 Tuesday, June 9	Room: Convention Center, Yangtze Room	
Session 505005	**Soil Feeds Life**	
Schedule	**Title**	**Presenter**
	Monday, June 8	
	Part 1: Ecological Protection, Restoration and Sustainable Development of Gobi Chair：Lixing Yuan	
13:30-13:45	The Classification, Regionalization and Mapping of Gobi in China	Yiming Feng Institute of Desertification Studies，Chinese Academy of Forestry
13:45-14:00	Soil Characteristics and Utilization Routes of the Gobi Desert in Xinjiang	Hongfei Zhou Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences
14:00-14:15	Soil Survey and Damage Analysis of Gobi Gravel layer in Hami City	Junli Li Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences
14:15-14:30	Research on Collaborative Paths of Gobi Ecological Protection and Regional High-Quality Development in Hami City, Xinjiang Uygur Autonomous Region	Rong Dai Nanjing Institute of Environmental Sciences, Ministry of Ecology and Environment/ Hami Municipal Bureau of Ecology and Environment, Xinjiang Uygur Autonomous Region/Xinjiang Hami Desert-Gobi Station, Ministry of Ecology and Environment
14:30-14:45	Research on Gobi Ecological Quality Assessment and Its Driving Mechanism in Hami City	Chaoran Li Nanjing Normal University
14:45-15:00	Exploration of Near-Zero Carbon Restoration Pathways for the "Mining-Photovoltaic-Greening" model in Gobi Mining Areas: A case of Xinjiang Hami Yinggema No.2 Coal Mine	Wenlong Yao Xinjiang Hami Yinggema Coal Power Investment Co., Ltd.
15:00-15:15	Effects of Photovoltaic Infrastructure Development and Operation on Soil Ecosystem Dynamics in Extremely Arid Regions	Chunbo Chen Xinjiang Institute of Ecology and Geography, Chinese Academy of Sciences
15:15-15:30	A Research on Spatio-temporal Evolution and Driving Mechanisms of Vegetation in Typical Arid and Semi-Arid Regions - A Case Study of Ningxia	Yangyang Gu Nanjing Institute of Environmental Sciences, Ministry of Ecology and Environment

Parallel Sessions

Monday, June 8		
Part 2: Curb Land Degradation, Protect Soil Health Chair: Rong Dai		
15:45-16:00	Desert Ecosystems in China: Past, Present and Future	Xunming Wang Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences
16:00-16:15	Advances in the Application of Bio-based Materials for Sand Fixation	Daihui Zhang Institute of Chemical Industry of Forest Products, Chinese Academy of Forestry
16:15-16:30	Synergy Between Abandoned Mine Restoration and Gobi Conservation in Desert Areas: An Environmental Boundary Perspective	Haidong Li College of Forestry and Grassland, College of Soil and Water Conservation, Nanjing Forestry University
16:30-16:45	Risk Assessment, Source Apportionment and Driving Mechanism of Soil Heavy Metals in Coal Mining Areas of Xinjiang, China	Fei Zhang Zhejiang Normal University
16:45-17:00	Spatio-temporal Mapping and Multi Scenario Prediction of Soil Organic Carbon of Grassland Ecosystems in China	Changming Zhu Jiangsu Normal University
17:00-17:15	Stabilization Study on Synergistic Disposal of Arsenic-Contaminated Soil by Ceramsite Kiln	Yifan Yan Nanjing Institute of Environmental Sciences, Ministry of Ecology and Environment
17:15-17:30	Effect and Quantitative Simulation of Watershed Buffer Zone on Prevention and Control of Agricultural Non-point Source Pollution	Ruozhu Yang Nanjing Institute of Environmental Sciences, Ministry of Ecology and Environment

Parallel Sessions

Tuesday, June 9 (Session 505005)	
Nature-Based Solutions for Soil Health and Sustainable Crop Production Chair: Junling Zhang	
09:00-09:15	Welcome Address: Jie Yu, Vice Chairperson, Agricultural Committee, China Democratic League Lixing Yuan, Professor, Dean of the College of Resources and Environmental Sciences, China Agricultural University Hongye Wang, Division Director, Cultivated Land Quality and Farmland Construction Monitoring and Protection Center, Ministry of Agriculture and Rural Affairs
09:15-09:25	Speech: Ray R Weil, Professor of University of Maryland
09:25-09:50	Plenary Speech: Minggang Xu, Academician of Chinese Academy of Engineering, Professor of Shanxi Agricultural University Contribution of soil fertility to crop yield and its increased major technologies in arable land of China
09:50-10:05	Keynote Speech: Zhixian Zhang, Executive Vice Mayor of Hami Municipal People's Government Empowering high-quality development in Hami City by developing new quality productive forces in the Gobi Region
10:05-10:20	Keynote Speech: Weifeng Zhang, Professor/Director of Quzhou Experimental Station, China Agricultural University Agricultural green development model based on resource efficiency and environmental emission reduction in North China - a case study in Quzhou

Parallel Sessions

Tuesday, June 9 (Session 505005)

Part 1 Crop Diversification for Sustainable Agriculture
Chair: Didier Lesueur, Guangzhou Wang

Schedule	ID	Title	Presenter
10:35-10:50	36195	Intercropping increases soil multifunctionality potentially by increasing the abundance of functional genes: evidence from a long-term field experiment	Long Li State Key Laboratory of Nutrient Use and Management, Beijing Key Laboratory of Biodiversity and Organic Farming, College of Resources and Environmental Sciences, China Agricultural University, Beijing, China
10:50-11:05	35743	Maize/peanut intercropping advantages: evidence for soil biota-mediated nitrogen transfer	Xiao Wang Institute of Applied Ecology, Chinese Academy of Sciences, Shenyang 110016, China
11:05-11:20	34480	Agronomic constraints limit the climate change mitigation potential of winter cover crops in Europe	Renske Hijbeek Plant Production Systems group, Wageningen University, Wageningen, the Netherlands
11:20-11:35	33239	Optimizing Soil Health in Tropical Peatlands through Coconut-based Agroforestry	Safira Eka Aprianti Tay Juhana Foundation, North Jakarta, 14440 Indonesia
11:35-11:50	33513	Restoring soil health and managing soilborne pathogens in Vietnam's intensified coffee and black pepper systems	Didier Lesueur The Centre de coopération internationale en recherche agronomique pour le développement (CIRAD), UMR Eco&Sols, Hanoi, Vietnam
11:50-12:05	33975	Evaluation of the soil quality improvement potential through basalt rock dust amendment	Angelique Daniell Unit for Environmental Sciences and Management, North-West University, Potchefstroom, South Africa

Parallel Sessions

Tuesday, June 9 (Session 505005)			
13:30-13:45	33784	Faba bean-wheat intercropping sustains soil water and nutrient cycling, and the carbon availability for microbes in the short term.	Shamina Imran Pathan Department of Agriculture, Food, Environment and Forestry (DAGRI), University of Florence, Piazzale Delle Cascine 28, 50144, Florence, Italy
13:45-14:00	36599	Copper – amendment interactions drive molecular and physiological stress responses in Vitis vinifera	Beatriz Fernandes GreenUPorto\/INOV4Agro, Campus de Vairão, Vairão, Portugal
14:00-14:15	35355	Cover copping for soil health improvement in North-western Canada	Bharat Shrestha Agriculture and Agri-Food Canada, Beavelodge Research Farm, Beaverlodge AB T0H 0C0
14:15-14:30	31339	Cover crop-driven anaerobic soil disinfestation enhances weed suppression and collard greens productivity	Mahmoud Rady Department of Plant and Environmental Sciences, Clemson University, Charleston, USA
14:30-14:45	32077	Productive grassland: influence of mixture composition on yield and nitrogen response efficiency in a temperate region	Danielle Varley Agri-Food and Biosciences Institute (AFBI), Northern Ireland, United Kingdom
14:45-15:00	34942	Soil natural productivity: A Path to self-regeneration and sustainability - Empirical Insights from Hechuren's "Natural Mulching and No-Tillage"	Yi Zhu Natural Mulching and No-Tillage Empirical Laboratory Chongqing Hechuren Farming Culture Heritage and Development Center Chongqing,China
15:00-15:15	36582	Phytoremediation potential of native plant species for improving soil health in vineyards with high levels of arsenic and copper	Cristiana Paiva GreenUPorto\/Inov4Agro - Sustainable Agrifood Production Research Centre, University of Porto, Vairão, Portugal","Department of Geosciences, Environment and Spatial Plannings, University of Porto, Porto, Portugal

Parallel Sessions

Tuesday, June 9 (Session 505005)			
Part 2 Soil Health Solutions for Sustainable Agriculture Chair: Guangzhou Wang, Didier Lesueur			
15:30-15:45	32333	Biochar and compost as nature-positive solutions to semi-arid agriculture: Multi-level assessments of soil health, nutrient cycling, and greenhouse gas emissions	Rajan Ghimire New Mexico State University, Agricultural Science Center, Clovis, NM, USA
15:45-16:00	35851	Microbial solutions for reducing soil nitrous oxide emissions	Guang He Affiliation of Guang He (Ecology, East China Normal University, Shanghai, China
16:00-16:15	36607	What matters to detect early soil health change in integrated cover crop systems?	Yajun Peng School of Environmental Sciences, University of Guelph, Ridgetown Campus, Ridgetown, ON Canada N0P 2C0
16:15-16:30	32037	Changes in Soil Bacterial and Fungal Community Characteristics in Response to Biochar Treatments	Nicholas Clarke Norwegian Institute of Bioeconomy Research, Ås, Norway
16:30-16:45	34999	Soil-crop-fertilization interactions drive the effects of Fusarium oxysporum FO12 on soil properties and plant nutrition	Jesús Sevillano-Caño Departamento de Agronomía, Universidad de Córdoba, Córdoba, España
16:45-17:00	34669	The issue of soil pollution solved using organic farming-case studies for solved the soil damaged by flood disaster problem	Pathawit Chongsermsirisakul SiPa Research Organisation, Bangkok, Thailand
17:00-17:15	34374	Identification of soil health-related problems in apple orchards: preliminary results from the Grójec Living Lab	Jerzy Jonczak Department of Soil Science, Warsaw University of Life Sciences-SGGW, Warsaw, Poland
17:15-17:30	33337	Ecological regulation function of soil microorganisms: Synergistic eEffects of arbuscular mycorrhizal fungi and Trichoderma in biotic and abiotic stress tolerance	Zhipeng Hao State Key Laboratory of Regional and Urban Ecology, Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences, Beijing 100085, China
17:30-17:45	-	Optimizing manure application and straw return to enhance ecosystem multi-functions	Jiyu Jia State Key Laboratory of Nutrient Use and Management, College of Resources and Environmental Sciences, China Agricultural University

Poster Session

Expo Center, Hall 4, 1st level Poster Area	Monday, June 8, 15:30-16:30 Tuesday, June 9, 15:30-16:30 Thursday, June 11, 15:30-16:30 Friday, June 12, 15:00-16:30

No.	ID	Title	Presenter
001	36038	Micro-morphological characterization of dry-farming soils at Yangshao site in China about 5000 B.P.	Zha lisi Guangdong University of Finance and Economics
002	35788	Effects of grass hedgerow measures on physical crust development and slope runoff and sediment of southern Quaternary red clay in China	Huiyun Xu China Agriculture University
003	35694	Dynamic safe nitrogen boundary for maintaining surface water quality in China	Yiyang Zou Zhejiang University
004	35865	Effect of dynamic salt precipitation on water and heat transport in unsaturated saline soil: Experiments and simulations	Hongchao Wang Xinjiang Institute of Ecology and Geography,Chinese Academy of Sciences
005	33747	Evaluation of Greenhouse Gas Emission Characteristics by the Use of Organic Resources and No-Tillings in Organic Agricultural-Based Corn Plantations	Da-Eun Kim Kangwon National University
006	35511	Microbial Hydrogen Cycling as a Potential Driver of Drought Resistance in Agricultural Soils	Lijun Hou Xinjiang Academy of Agricultural Sciences
007	32879	Arbuscular Mycorrhizal Fungi in Rare Earth Mining Areas: Community Vulnerability and Functional Roles in Runoff Regulation	Hongguang Liu Jiangxi Academy of Water Science and Engineering
008	33840	High resolution mapping of carbon dioxide pollution in the Xi'an megacity using plant carbon isotopes	Yilong Ren Xi'an Jiaotong University
009	36258	Study on the Impact of River-Sea Position on Water Sources of Tamarix chinensis Vegetation in the Yellow River Delta before the Rainy Season	Xiangyu Hu LuDong University
010	35101	Environmental Behaviors and Effects of Micro- and Nanoplastics and Phthalate Esters in Farmland Environments	Yu Wang Institute of Soil Science, Chinese Academy of Sciences
011	35027	Enhanced weathering technology using blast furnace slag(BFS) for carbon sequestration in soil	Seong-hyeon Nam Kangwon National University

Poster Session

012	33742	Influence of a tailored composite amendment on soil health and wheat productivity in reclaimed tidal land	Chae Youn Won Kangwon national university college of agriculture and life sciences school of natural resources and environmental sciences
013	34602	Enhancement of soil physical properties through the use of cover crops: A systematic review for the Argentinean Pampas	Walter D. Carciochi Facultad de Ciencias Agrarias (Universidad Nacional de Mar del Plata) Instituto de Innovación para la Producción Agropecuaria y el Desarrollo Sostenible
014	32991	Rate of decomposition of litter fall and nutrients recycling in three soil use systems in the Peruvian Amazon	Julio Alegre Universidad Nacional Agraria la Molina
015	31680	Phytoremediation of Cd-Contaminated Soil: Role of Tropical Grasses in Modulating Cadmium Speciation	Flávio Henrique Silveira Rabêlo University of São Paulo
016	33721	Effect of Pusa Decomposer-mediated rice residue management on soil phosphorus dynamics in a rice–wheat system of the Indo-Gangetic Plains	Ranjan Bhattacharyya Indian Agricultural Research Institute, New Delhi, India
017	33359	Culture-Dependent Bacteriome Analysis Reveals PGPB Candidates for Okra Biopriming under Salinity Stress	Felix Tokyo University of Agriculture and Technology
018	319B83	Integrating Soil Remediation and Land Valuation Comparative Evidence from the UK and China	WANG FENG Independent researchers
019	33816	Advancing Corn Yield Prediction through Cross-Scale Integration Approaches	Solmaz Fathololoumi University of Guelph
020	33817	Enhancing Precision Nitrogen Management through Integration of Soil Properties and Remote Sensing	Solmaz Fathololoumi University of Guelph
021	32430	Cadmium uptake by maize grown with microplastics and their effect on water content and grain quality	Mary Beth Kirkham Kansas State University
022	33384	Multivariate Analysis of Biomass Production and Nutritional Efficiency of Marandu Palisadegrass Fertilized with Bioinputs	Reges Heinrichs São Paulo State University - UNESP
023	30652	Making Darcy visible: A simple apparatus for teaching Saturated flow in Soil	Roger McLenaghen Lincoln University

Poster Session

024	32157	Tradeoffs between microbial life-history strategies drive soil carbon cycling during revegetation in karst ecosystems: A metagenomic perspective	Xiaoyi Cai Xishuangbanna Tropical Botanical Garden
025	32842	In karst fragile habitats, abiotic factors, particularly soil organic carbon, dominate over microbial communities in determining soil multifunctionality	Zhen Han College of Forestry, Guizhou University
026	31882	Monitoring spatial changes in soil organic carbon in response to land-use and slope direction	Morteza Gheysouri Xi'an University of Technology
027	34653	Simulating Soil-Plant-Climate Interactions and Greenhouse Gas Exchange in Boreal Grasslands Using the DNDC Model	Daniel Forster Fukushima Institute for Research, Education and Innovation (F-REI)
028	33300	Immobilization of Arsenic and Cadmiumin Alkaline Soil Using Combined Red Mud-Phosphogypsum Amendment	Namhee Yi Gyeongsang National University
029	32375	Innovating Truffle Agroforestry for Sustainable Mediterranean Landscapes: The TAIE Project	Luisa Massaccesi Institute for Agricultural and Forest Systems in the Mediterranean, National Research Council, Italy
030	32617	Soil organic C composition and microbial community regulate soil enzymatic stoichiometry in Camellia oleifera land with cover crops	JiaJunTian Central South University of Forestry and Technology
031	320B44	Hydrochar amendment under controlled irrigation enhance microbial carbon use efficiency by regulating turnover dynamics in paddy soils	Kechun Wang Northwest A&F University
032	33748	Effects of Microplastics on Litter Decomposition in Shengjinhu Wetlands	Ziyuan Liang Anhui University
033	31982	Carbon dioxide emissions from technogenic soils of the Central forest steppe	Tikhonova Elena Voronezh State University of Forestry and Technologies named after G.F. Morozov
034	32529	Climate Change Effects on Nitrogen Cycles in Global Grasslands	Miao Zheng Zhejiang University
035	32259	Soil development on coal-waste dump in southern Poland	Agnieszka Czajka University of Silesia, Faculty of Natural Science
036	33493	Monitoring Cadmium in Soils, Fertilizers, and Baby Leaf Vegetables in Southern Italy: Regulatory and Environmental Insights	Paola Adamo Department of Agricultural Sciences, University of Naples Federico II

Poster Session

037	33494	Soil–Plant Isotopic Coupling in Support of PDO Agri-Food Traceability	Paola Adamo Department of Agricultural Sciences, University of Naples Federico II
038	34297	Rhizosphere bacterial communities mediate host genetic effects on agronomic traits in soybean	Jia zhongjun Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, Changchun, China
039	33536	Evaluating the phosphorus release efficiency of duo-biochar to spring wheat	Christina van Midden Agri-Food and Biosciences Institute
040	33535	Field evaluation of biochar on soil and crops in Northern Ireland (NI)	Christina van Midden Agri-Food and Biosciences Institute
041	32931	Short-term organic fertilization enhances soil microbial diversity in common bean cultivation	Glacy Jaqueline da Silva Paranaense University
042	32347	Nutrients Leaching In A Maize Stover Biochar Amended Soil	Prof. Olubunmi Samuel SHITTU Federal University Oye-Ekiti, Oye-Ekiti, Nigeria.
043	32303	Heavy Metal Immobilization Potentials of Some Agricultural Wastes in Contaminated Arable Soil	Dr. Augustus O. A. ILORI Federal University Oye-Ekiti, Oye-Ekiti, Nigeria.
044	33853	Regulatory Effects of Nitrogen and Acetate on Arsenic Adsorption by Bentonite in an Anaerobic System	Xinyun Meng Southwest University
045	33709	SoilBio Reveals the Power of Forage Grasses to Improve Biological Functioning, Soil Health and Long-Term Soybean Yield in Maranhão, Brazil	Fábio Bueno dos Reis Junior Embrapa Cerrados
046	32351	Aligning nitrogen form with rice preference raises yield and cuts emissions	Shending Chen College of Environmental and Resource Sciences, Zhejiang University, Hangzhou, China
047	34680	AMF modulation of sweet potato plant performance and rhizosphere microecology depends on soil potassium availability: shared and differential strategies	Jie Yuan Jiangsu Academy of Agricultural Sciences
048	35079	Soil Profile Horizon Classification Integrating Point-Based Hyperspectral Data and Machine Learning Algorithms	Liuxiang Nanjing University of Information Science and Technology
049	32863	Scale-dependent mechanisms of grazing-induced soil carbon sequestration: Mediated by soil nitrogen quantity vs. heterogeneity in grasslands	Yue Bai Northwestern Polytechnical University

Poster Session

050	32856	Enrichment of metastable iron minerals in global coastal wetlands	Ma Hua Institute of Geochemistry, Chinese Academy of Sciences (IGC CAS)
051	32770	Integrated Modelling and Technological Tools to prevent Agricultural Non-Point Source Nitrate Pollution of Shallow Groundwater in Arborea Area, Sardinia, Italy	Andrea Vacca University of Cagliari
052	35799	Spatio-temporal patterns and environmental controls of soil organic carbon stocks in global tidal wetlands since 2009	yang chenconghai Nanjing university
053	35849	Reactive oxygen species in paddy rice systems: Links with environmental parameters and soil microbial communities	Jidong Ying South China Agricultural University
054	319B35	Revealing Microplastic Contamination in Coastal Soils in Southern Italy via ATR-FTIR and SEM	Martina Cusano University of Molise
055	31888	The Virtual Soil Museum of Northern Paraná: A Space for Soil Education	Jully Gabriela Retzlaf de Oliveira UENP
056	35672	Changes in Soil Biological Activity Induced by Increasing Doses of Aged Microplastics in Agricultural Soil	Humberto Aponte Universidad de O'Higgins
057	31868	SOIL MANAGEMENT AND CONSERVATION FOR AGRICULTURAL SUSTAINABILITY IN MALI VILLAGES	MARX LEANDRO NAVES SILVA Department of Soil Science, Federal University of Lavras
058	35679	Field Evaluation of Vegetation with Contrasting Root Traits for Runoff and Soil Erosion Control on Sloping Agricultural Land	INTAN NADHIRAH BINTI MASRI Malaysian Agricultural Research and Development Institute
059	32441	Rhizosphere-triggered viral lysogeny mediates microbial metabolic reprogramming to enhance arsenic oxidation	Xinwei Song Zhejiang University
060	32629	Gradient virtual sampling along pedogenetic sequences improves soil taxonomic mapping in low-relief regions	Zhidong Zhao College of Land Science and Technology, China Agricultural University
061	33179	Soil pH Modulates the Global Stabilized Soil Organic Carbon	Cuijuan Liao Key Laboratory of Ecosystem Network Observation and Modeling, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, China

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062	35589	Keystone microbes mediate root plasticity and phosphorus uptake to enhance maize crop productivity in intercropping systems	Yi-Wen Zhao China Agricultural University
063	36423	Research on Soil Reconstruction Technology Based on Red Clay-Sandy Soil Compounding in Grassland Open-Pit Mining Areas	Qiao Yang 1.Land Consolidation and Rehabilitation Center, Ministry of Natural Resources, Beijing, China.2 Technology Innovation Centerfor Land Engineering, Ministry of Natural Resources, Beijing, China. 3 China University of Geosciences, Beijing, China.
064	33720	CONTROL AND EVALUATION OF ALUMINUM METAL COMPONENTSIN SALINE ACID SULFATE SOIL BY ECO-FRIENDLY AMENDMENTS	Tung Xuan Tan Nguyen Department of Informatics, Natural Resources and Environment (DINRE), Institute for Environment and Resources (IER), Vietnam National University Ho Chi Minh City (VNU-HCM), Ho Chi Minh City, Vietnam
065	32604	Sulfur enhances iron plaque formation and stress resistance to reduce the transfer of Cd and As in the soil-rice system	Fei Miao Huazhong Agricultural University
066	32609	Fe-S mineral evolution drives colloidal restructuring and reshapes Cd and As migration pathways in paddy soils	Fei Miao Huazhong Agricultural University
067	34744	Transformation of Aluminum Forms During Andosol Genesis in Japan	Syuntaro Hiradate Kyushu University
068	32185	The mineralogical mechanisms of solid phase aluminum mobilization during soil acidification	Kewei Li Institute of Soil Science, Chinese Academy of Sciences
069	32301	The “Reactive Mineral Sink" Model for Reframing Soil Organic Carbon Stabilization	Songlin Wu Research Centerfor Eco-Environmental Sciences, Chinese Academy of Sciences
070	33214	Tracing soil microbial life–death dynamics through Intra- and extra-cellular DNA divergence across the Tibetan Plateau	Ting Li University of Chinese Academy of Sciences
071	32817	Prediction of Soil Structural, Hydraulic, and Chemical Properties: A Comparison of NIR and MIR Across the Critical Zone	Yasas Gamagedara Mississippi State University
072	33806	Uracil as an alternative plant nitrogen source affecting plant growth and shaping plant-soil-microbe interactions	Qing Zheng University of California, Davis

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073	32102	Pedogenic Carbonates and Calcimetry Near Detection Limits: Field-scale weathering dynamics in wollastonite-amended clayey/acidic soils	Rafael M. Santos University of Guelph
074	31829	Transferring Global Pedogenon Insights for Soil Security in Australia	Wartini Ng The University of Sydney
075	34099	Ecological strategies govern fungal performance on soil carbon cycling in agroecosystems	Wenxin Zou Southwest University
076	34328	Urban soil virus homogenization reshapes microbial organic matter decomposition and carbon sequestration potential	Panpan wang Huazhong Agricultural University
077	319B38	Digital Mapping for Spatial Prediction of Soil Properties Using Machine Learning Models for Soil Management in Rice Cultivation Areas Affected by Salt: A Case Study of Mueang Phia, Ban Phai, Khon Kaen, Bangkok	Waramporn Wongwarapas Land Development Department
078	33993	Trait-mediated rhizosphere phosphorus strategies among coexisting desert shrubs	Jing Zhou, Mingzhu He, Chunming Xin, Huijun Qin, Shengzhong Du, Huihui Niu Northwest Institute of Eco-Environment and Resources, CAS
079	32057	Arenization in the Bauru Basin, Mato Grosso do Sul, Brazil	Viviane Capoane, Robert A. Burrow UEMS and UFSM
080	33814	Organic rice cultivation boosts microbial CUE by modulating soil nutrient availability and microbial resource acquisition strategies	Guanghua Wang Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
081	34003	Nitrogen fertilization increases rice productivity at the expense of endophytic bacterial community stability and diversity	Guanghua Wang Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
082	33362	Soil Calcium Carbonate Leaching Process of Millennial Soil Chronosequence in Coastal Regions	Yajing Cai School of Geographic Sciences, Nanjing University of Information Science & Technology
083	33069	Microbial driven soil carbon cycling in red soil aggregates under different fertilization	Liu Ming State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences, Nanjing
084	33262	Age-related shifts in soil microbial community structure and metabolic pathways in Picea schrenkiana var. tianschanica plantations	Liu Li Xinjiang Agricultural University

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085	33470	Accuracy improvement of spatial prediction for soil organic matter using receptive field fusion module in hilly areas	Yangfan Xie Hunan Agricultural University
086	34283	Appraisal of Soil Taxonomy and the World Reference Base for Soil Resources Applied to Classify Purple Soils from the Eastern Sichuan Basin, China	Siyu Liu College of Resources and Environment, Southwest University, Chongqing, China
087	34681	Soil Carbon Stocks and Stable Isotope Profiles in South Korean Forested Wetlands across Successional Stages	Tae Kyung Yoon Kookmin University
088	31597	Humate Boosts Liming Value? Insights into humate-assisted lime dissolution across acidic environments	Oshadi Hettithanthri UWA School of Agriculture and Environment, The University of Western Australia
089	32166	Improving soil organic carbon sequestration through conservation tillage incorporating legume-based crop rotations	Wenxuan Liu China Agriculture University
090	35758	Biochar-based microbial fertilizer enhances cucumber growth and yield by improving soil quality in protected agriculture	Dongliang Fan Xi'an University of Technology
091	33592	Ciprofloxacin- driven purifying selection on viral genomes accelerates soil N2O production	Linfa Fang China Agricultural University
092	35007	Initial soil organic C and mean annual precipitation regulate black soil C dynamics under different tillage regimes in Northeast China	Jianyu Tao State Key Laboratory of Efficient Utilization of Arable Land in China, Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences, Beijing 100081, China
093	32660	Short rotation coppice on degraded and fertile soils	Vladimir Ivezic Faculty of Agrobiotechnical sciences Osijek
094	33930	Accumulation, Distribution, and Migration Patterns of PAHs in Typical Coal Fire Zones	Pengcheng Zhang China University of Mining and Technology
095	34656	Acidification Discrepancy in Soils with Contrasting Surface Charge	Zhanyu Guo Ludong University
096	32633	Biohydrogen utilization in legume-rhizobium symbiosis reveals a novel mechanism of accelerated tetrachlorobiphenyl transformation	Yongfeng Xu Institute of Soil Science, Chinese Academy of Sciences, Nanjing, China

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097	35890	Estimation of Salinization in the Yellow River Delta Based on BO-XGBoost and a Four-Dimensional Feature Space, with Spatiotemporal and Trade-off/Synergy Factor Analysis	Jicun Yang Shandong University of Technology
098	35892	Interpretable salinization estimation model for Dongying City based on integrated multidimensional spectral indices with XGBoost-driven transformations	Xinyu Che Shandong University of Technology
099	35889	INSIGHT: A Spatially-Explicit Watershed Model Integrating Biogeochemistry and Hydrology to Track Nitrogen Fate and Transport	Hao Liang Hohai University
100	33997	Wheat and faba bean intercropping enriches nitrogen-cycling taxa, shifting networks to enhance nitrogen mineralization	International Union of Soil Sciences Yunnan Agricultural University, Kunming
101	33949	Regulation of methane oxidation in natural grassland by animal urine addition gradients	Wang Yufang Key Laboratory of Microbial Resources Exploitation and Application of Gansu Province, Institute of Biology, Gansu Academy of Sciences, Lanzhou 730000, P.R. China
102	35623	Typical mineral additions promote soil MAOC sequestration: Interactions between Fe oxides and microbial-derived peptides	Qi Li 1Institute of Agricultural Resources and Environment, Guangdong Academy of Agricultural Sciences, Guangzhou, China. 2Key Laboratory of Plant Nutrition and Fertilizer in South Region, Ministry of Agriculture and Rural Affairs, Guangzhou, China.
103	32921	Rhizosphere strategies of maize: Effects of drought type on root and rhizosphere traits in different soil textures	Andreas J. Wild University of Bayreuth
104	35847	Disentangling plant community and environmental controls on soil-borne pathogens in grassland ecosystems	Junsheng Ke Lanzhou University
105	35306	Microbial activity and biomass in a cultivated and bioinoculated soil under water and nutritional deficit conditions	Erika Lorena Blanco Carrero Universidad Nacional Experimental del Táchira
106	35845	Mild to moderate drought stress reinforces the role of functional microbiome in promoting growth of a dominant forage species (Neopallasia pectinata) in desert steppe	Zhenzhen huang Inner Mongolia Agricultural University

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107	320B90	Differences in the forms of bidirectional nitrogen transfer facilitate species coexistence in maize-green manure mixture systems	Runfu Li Beijing Forestry University
108	34008	Soil Type Prediction in Jianshi County, China Based on Soil Formation Factors and Random Forest	Yao Lu School of Geography and Information Engineering, China University of Geosciences, Wuhan, China
109	32920	Symbiotic N2 fixation drive nitrogen-phosphorus synergy in maize-lablab mixture	Runfu Li Beijing Forestry University
110	34853	Earthworms enhance soil phosphorus cycling but plant responses differ among earthworm ecological categories	Wenli Ding Beijing Forestry University
111	34386	Spatial distribution of medium and trace elements in tea garden soil of Laoshan District, Qingdao	Zhenghuan Kong Qingdao Agricultural University
112	31337	Degradation of Sugar Beet Pulp by Klebsiella sp. HDJT1 and Pseudomonas sp. C27: A Metabolic Cross-Feeding Strategy for Soil Health Improvement	Yanli Liu Heilongjiang university
113	35843	Synthetic DNA Fragments as High-Resolution Tracers for Hydrological Parameter Inversion	XinLin Li China Agricultural University
114	35874	Methane production potential in winter flooded rice paddy	zhijie sun China West Normal University
115	33180	Adopting wheat-legume intercropping enhances crop productivity and soil quality: Evidence from living labs across Pakistan under LEGUMINOSE Project	Muhammad Riaz Government College University Faisalabad, Pakistan
116	35746	Cutting global nitrogen emissions by one-third forbalanced and achievable SDGs by 2030	Yi Zhou Zhejiang University
117	34755	Soil organic matter effects on interfacial water thermodynamic behavior revealed by isothermal thermogravimetric analysis	Zizheng Deng College of Land Science and Technology, China Agricultural University
118	35793	Nitrogen addition promotes soil microbial-derived carbon storage: A meta-analysis	Junjie Guo Sun Yat-sen University
119	34349	The influence of the application of sewage sludge compost on the yield of winter oilseed rape	Jovica Vasin Institute of Field and Vegetable Crop, Novi Sad, Serbia

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120	31914	Methylmercury Accumulation and Risk Mitigation in Chinese Paddy Soils	Yusef Kianpoor Kalkhajeh Wenzhou-Kean University
121	36311	Green-Ampt infiltration model calibration on a Peruvian Andean hillslope under different land uses	Diego Armando Fernandez Ibarra Universidade de Sao Paulo
122	34582	Straw- decomposing inoculants strengthen the mitigation effect of straw on N2O emissions via synergistically inhibiting the abundance and activity of AOB in a wheat field	Cheng Ji Institute of Agricultural Resources and Environment, Jiangsu Academy of Agricultural Sciences, Nanjing, China
123	34635	Multi-benefits of wastewater phosphorus recovery for croplands in China	Zijie Tang Zhejiang University
124	34030	Microbiomes hold the key to build up high soil fertility beyond organic fertilization	Chunkai Li Nanjing Forestry University
125	35281	Modeling of Carbon Sequestration in Future Climate Conditions in a Long-Term Field Experiment on Light-Textured Retisol in the Tver Region, Russia	Igor Ilichev Lomonosov Moscow State University
126	34306	Rethinking Watershed Delineation in Human-Modified Plain Farmlands: FromTopographic Units to Process-Oriented Hydrological Systems	Jiahao Liu Northeast Forestry University
127	33269	Study on the Coupled Processes of Cd and Fe Transfer in the Soil-Rice System: a Remedial Strategy Using Functional Fertilizer	Li Yichun Institute of Agricultural Resources and Environment, Guangdong Academy of Agricultural Sciences, Guangzhou, China
128	35929	Soil carbon quality modulates the responses of soil respiration and its heterotrophic and autotrophic components to fertilization under straw return and extreme rainfall	Shiqi Xu 1 State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences, Nanjing, China 2 State Key Laboratory of Environmental Geochemistry, Institute of Geochemistry, Chinese Academy of Sciences, Guiyang, China
129	35866	The spatial distribution characteristics of microbial community in soda saline-alkali paddy with flue gas desulfurization gypsum reclamation	Bangyan Liu Tsinghua University
130	33902	Organic amendments exacerbate fertilization-induced reduction in microbial NUE across China	Xinran Wang Chinese Academy of Agricultural Sciences

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131	33544	Vegetation Biodiversity and Microbial Communities Drive Carbon Cycling during Secondary Succession in the Longmen Mountain Seismic Belt	Yingyan Wang Mianyang Teachers ‘ College
132	34441	Microbial necromass outperforms the chemical stability of SOC in predicting soil multifunctionality under 44-year of organic amendment in red paddy soil	No Jiangxi Institute of Red Soil and Germplasm Resources
133	33778	Differences in water erosion between in-row and inter-row positions of maize in sloping farmland	Shuai Chen College of Land Science and Technology, China Agricultural University, Beijing, China.
134	33574	Oral Exposure of Arsenic-Contaminated Soils Triggers Hepatic Ferroptosis via Iron Dysregulation and Glutathione Metabolism Disruption: From Bioavailability to Mechanisms	Cheng-Chen Wang Southwest Forestry University
135	35398	Response of soil erosion resistance capacity to different vegetation restoration measures and driving mechanisms in the Three Gorges Reservoir Area	Ruyuan Hu Ecology and Nature Conservation Institute,Chinese Academy of Forestry
136	31833	Technical Feasibility of Biomass Buffer Strips for Capturing Excess Nutrients from Agricultural Runoff	Tianying LI University of Guelph
137	36332	Effects of Spatial Resolution on Spectral Characteristics of Soil Salinity in Plastic-Mulched Farmland	Weitong Ma College of Hydraulic and Civil Engineering, Ludong University
138	33326	Soil microbial community structure in reclaimed and unreclaimed post-mining areas	Andres Rodriguez Seijo Universidade de Vigo
139	33146	Effects of alley cover crops on soil carbon and nitrogen along the soil profile in almond orchards under a Mediterranean climate	Jesús Aguilera Huertas Universidad Politécnica de Cartagena
140	31875	Rotational grazing with no-till can efficiently maintain soil carbon stocks in Mediterranean woody pastures but results in lower microbial abundance and fungal diversity than grazing abandonment	Jesús Aguilera Huertas Universidad Politécnica de Cartagena
141	34109	Influence of species diversity and soil cementing substances on the stability of agglomerates in three forest types of Zhangguangcailing Mountains	Yang fengjiao Northeast Forestry University

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142	34899	Sustainability of mountainous olive orchards: evaluation of soil microbial diversity and functionality of organic, integrated and conventional agroecosystems.	Victoria Ochoa Esteban University of Jaén
143	321B04	Drivers of soil health of olive groves and their impact on the sustainable production of olive oil in the Mediterranean	Victoria Ochoa Esteban Universidad de Jaén
144	32201	The impact of agricultural land use on soil hydraulic properties and hydrological functioning across the lowlands of England and Wales	Yong Wang University of Reading
145	35336	Mitigation of Heavy Metal Transfer from Soil to Lettuce Using Pyrophyllite: A Soil–Plant Study	Emina Sijahović University of Sarajevo-Faculty of Agriculture and Food Sciences
146	31866	Patterns of formation of the soil cover of historical urban parks (using the example of St. Petersburg, Russia)	Kseniia bakhmatova Saint Petersburg State University
147	33296	Insight in the characteristics of humicsubstances with cotton straw derived organicmaterials amendments	Xiangyun Song Qingdao Agricultural University
148	33048	Identification of Key Factors for Soil Drainage Classification via Color Metric Comparison from Soil Images	Danbi Lee National Institute of Agricultural Sciences
149	34583	Crop rotation and residue management enhance banana health by enriching core antagonistic microbes	Shan Hong Hainan Academy of Agricultural Sciences
150	34655	Organic Compounds in Organically Managed Farmland in Fukushima and Their Effects on Roots of A. Thaliana	Marcel Pascal Beier Fukushima Institute for Research, Education and Innovation
151	33713	Initial changes in soil microbial community structure after combined biochar and straw application to agricultural soil: evidence from a 180-day incubation experiment	Xiaodong Zheng Institute of Agricultural Resources and Environment, Guangdong Academy of Agricultural Sciences
152	36235	Conservation tillage and wheat straw managements improve soil organic carbon sequestration via calcium-mediated microbial communities and aggregate stability in Calcaric Cambisols	Xueping Wu Institute of Agricultural Resources and RegionalPlanning, Chinese Academyof Agricultural Sciences
153	31836	Soil Security Indicator Classes: Reframing soil indicators for effective governance	Sandra Evangelista The University of Sydney

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154	32116	Development of carrier-based microbial inoculant and the assessment of soil application impact on Faba bean (Vicia faba) growth	Sajeevee S. Sarathchandra University of Western Australia, Imtrade CropScience
155	31480	Evaluating the Applicability of the RothC Model for Soil Organic Carbon Dynamics in Canadian Prairie Grasslands Using Physical Fractionation	Ruitian Chen University of Guelph
156	32533	Spatiotemporal divergence of soil acidification in China's cropland	Xi Wang Zhejiang University
157	33289	Effects of microplastics on microbial communities and antibiotic resistance genes in the soil-plant system	Nuo Chen Anhui University
158	33805	Seasonal Soil Hydraulic Function and Pore Size Dynamics throughout Cover Crop–Corn Rotation in a Reduced-Tillage System	Rui Peng The University of Tennessee
159	34298	Comparative Analysis of Soil Microbial Community Structures in Rhizosphere of Two Texture-Differentiated Lotus Root Varieties	Xinni Li Guangxi University
160	35948	Pollution characteristics, sources and risk assessment of per- and polyfluoroalkyl substances (PFASs) in river water, sediments, soils of the Inner Mongolia Section of the Yellow River	Xuehui Xu Inner Mongolia Agricultural University
161	32930	The SIMULATE Project: evaluating climate-warming impacts on metalliferous mine tailings to guide restoration strategies in semiarid landscapes	María Nazaret González-Alcaraz Technical University of Cartagena
162	32908	Quantifying Metal Transport by Water Erosion: A Field-Based Assessment in a Semiarid Mediterranean Former Mining Area (SE Spain)	María Nazaret González-Alcaraz Technical University of Cartagena
163	34305	Gynoecious and monoecious cucumbers drive the assembly of different rhizosphere microbial communities	Liyuan Liao Guangxi University
164	32961	Phosphate-Solubilizing Bacteria Enhance Sugarcane Growth: High-Potential Candidates for Sustainable Biofertilizer Development	Pechrada Pinjai Kasetsart University, Thailand
165	33941	State-Dependent Thresholds and Ecological Safety Boundaries for Vegetation Restoration on the Loess Plateau Under Root-Zone Soil Moisture Constraints	Guiming Hu Chang'an University

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166	34040	Reseeding Caragana korshinskii recovers soil microbiome structure but not stability or complexity after eight years in degraded desert steppe	Huhaina Inner Mongolia Agricultural University
167	32951	Halophytes reclamation soil through improving soil structures, decreasing salinity and enhancing SOC storage in coastal saline land	Huanyu Chen Jiangsu Coastal Area Institute of Agricultural Sciences
168	31641	Microbial Community Assembly, Network Resilience, and Nitrogen Functional Stability Under Canopy Gap Disturbance in Karst Forest Soils	Guangqi Zhang Guizhou University
169	32918	Short-term intercropping reduces total symbiotic N2 fixation and alters the fate of nitrogen derived from free-living fixation	Runfu Li Beijing Forestry University
170	34005	Responses of Runoff and Sediment Yield to Natural Rainfall Characteristics and Vegetation Configuration in a Loess Hill–Gully Slope System	Hongjie Peng Chang'an University
171	33466	MOF-303 Reinforced Bio-based Coatings for Precision Nitrogen Release in Agriculture	Mingchuan Yang Shandong Agricultural University
172	33704	Iron engineering unlocks carbon sequestration potential in salinized drylands	Bin Jia College of Natural Resources and Environment, Northwest A&F University
173	33939	Regulatory effects of vegetation configuration on erosion hydrodynamic thresholds for hill-gully slopes in the loess hilly and gullied region	Chenyu Cui Chang'an University
174	33769	Screening of microplastic-degrading bacteria and their effect on lettuce growth under pollution stress	Qiming Lu Anhui University
175	35138	Influence of Soil Microstructure on Capillary Rise in Disturbed and Undisturbed Sandy Arid Soils, Oman	Afrah Al-Shukaili Sultan Qaboos University
176	32342	Increasing maize yield and rhizosphere soil organic carbon content via combined application of humic acid and microbial agents	Yue Yuan Shangqiu Normal University
177	34437	Assessment of Livestock Carrying Capacity in Typical Agro-Pastoral Transition Zones Based on Heavy Metal Pollution in Cultivated Land: The Case of Chifeng City	Ru Bai Inner Mongolia Agricultural University

178	34631	Soil Organic Carbon Storage Patterns and Environmental Drivers in Large-Diameter Timber Plantations of Southern China	Hongting Quan South China Agricultural University
179	34661	Response of soil microbial metabolites to repeated freeze-thaw cycling in a temperate forest	Maki Miura F-REI
180	34024	Combined effects of biochar and milk vetch with 20% N reduction on rice yield, soil aggregation and C- N allocation in reddish paddy soil	Xie Zhijian College of Land Resources and Environment, Jiangxi Agricultural University
181	34350	Dual Benefits of Nano-Iron Oxide: Enhancing Rice Yield and Mitigating Greenhouse Gas Emissions Across Diverse Paddy Soils	Lihong Xue Jiangsu Academy of Agricultural Sciences
182	35777	Dual-Dimension Spectral Reconstruction: Spatiotemporal Mapping of Soil Organic Matter under Complex Cropland Surface Conditions	He Rongpeng Chinese Academy of Sciences Aerospace Information Research Institute
183	319B46	Rice straw return by water-logged press-bury in autumn Enhanced Black Soils Carbon Stability in Northeast China Paddy Fields	Dongju Bai Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences
184	34319	The influence of organic materials on the chemical structure of humus in salt crust aggregates in the Yellow River Delta	Zichen Xu Qingdao Agricultural University
185	32938	Can soil magnetism affect the soil response to the magnetized water?	Alshymaa M. Guda National Research Institute of Astronomy and Geophysics (NRIAG)
186	35918	Multi-stressor environments reshape soil microbial biodiversity and genomic strategies, favoring stress-adapted and unknown taxa	Shuxun Cheng Zhejiang University, Institute of Soil and Water Resources and Environmental Science
187	34994	Structured Mini-Dunes (SMDs): Engineered Soil Structures for Moisture Retention and Salinity Control in Arid Sabkha Soils	Afrah Al-Shukaili Sultan Qaboos University
188	32290	Differences in soil organic carbon among soil layers caused by microbial necromass carbon accumulation under different tillage and carbon input regimes	Ximing Liu Institute of Agricultural Resources and Environment, Jilin Academy of Agricultural Sciences
189	33411	Evaluation of EnvironmentallyImportant Elements from Glacial Ice-Water and Associated Glacial Sediments	Kashmala Jadoon Nanjing University
190	34397	Effects of compost application on rhizosphere microbial communities in sandy soil under different tillage practices	Xinyu Ma Qingdao Agricultural University

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191	34216	Elevated ozone alters methane emissions in straw-amended paddy fields via plant–soil–microbial regulation	Yijia Zhang Nanjing University of Information Science and Technology
192	32276	Synergistic Mitigation of Crop Rhizosphere Soil Microbial Nitrogen Limitation by Maize-Peanut Intercropping and Straw Return in Black Soil Region: Insights from Extracellular Enzyme Stoichiometry	QilaSa Jilin Agricultural University and Jilin Academy of Agricultural Sciences (Northeast Agricultural Research Center of China)
193	34174	Combined Effects of Elevated Ozone and Warming on Methanogenesis in Paddy Soil Across Depths	Jinfeng Ma Nanjing University of Information Science and Technology
194	33708	Lab evaluation of the SoilVUE10 time domain reflectometry sensor under drying and wetting conditions of saline soils	Xuan Yu Institute of Soil Sciences, CAS
195	320B10	The silent season: Rapid increases in non-growing season soil respiration on the Tibetan Plateau	Qinlu Li， Weibo Kong Northwest A&F University
196	34076	Warming alters fresh-carbon assimilating bacterial community relevant to priming effect in Mollisols	Gao Yan Northeast Institute of Geography and Agroecology
197	33439	Predicting the interaction of a coated moldboard plow and soil compared to the conventional one using adaptive neuro-fuzzy inference system (ANFIS)	Mohammad Askari Sari Agricultural Sciences and Natural Resources University, Sari, IRAN
198	31986	Optimization of Ethyl Cellulose-Coated Urea for High-Performance Controlled Release	Yuanfang Zhou Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences
199	31638	How soil food web composition and stoichiometry regulate ecosystem function and soil health	Yang Bai Institute of Applied Ecology, Chinese Academy of Sciences
200	33715	Speciation of Heavy Metals in Soil and Their Influencing Factors in a Tailings-Affected Area of Eastern Inner Mongolia	Yibo Ma Inner Mongolia Agricultural University
201	32708	Soil β-Diversity responses to global change mediated by assembly processes and multi-trophic interactions	Zhenxin XU Institute of Applied Ecology, Chinese Academy of Sciences, Shenyang, China
202	319B45	Trade-off between Pore-Throat Structure and Mineral Composition in Modulating the Stability of Soil Organic Carbon	Lingke Guo Hunan Agricultural University

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203	33652	Combined Application of Straw and Biochar: A Synergistic Strategy to Enhance Fertilizer Efficiency, Boost Yield, and Reduce Greenhouse Gas Emissions in Northeast China	Aizheng Yang Northeast Agricultural University
204	35240	Spatio-Temporal Variations in Soil Organic Carbon Stocks in Erosion Zones Under Future Climate Change	Xinyu Zhang Shenyang Agricultural University
205	36316	Evolution of Global Soil Science Collaboration Networks and Its Implications for Journal Development	Ping Lu Institute of Soil Science, Chinese Academy of Sciences
206	34344	Mechanisms of Biochar and Cattle Manure in Regulating the Microstructure of Humic Substances within Saline Fluvo-Aquic Soil Aggregates	Rui Zhang Qingdao Agricultural University
207	35769	The potential role of groundwater microplastics on arsenic cycling in alluvial aquifers: insights from links of DOM characteristics and microbial community	Shengfeng Liu State Key Laboratory of Geomicrobiology and Environmental Changes, China University of Geosciences (Wuhan)
208	32159	Bacterial modification of the root cell wall facilitates rice aluminum resistance in acidic soils	Zhang li State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences
209	32235	Going Deep Vertical Migration of Biodegradable vs. Conventional Film Microplastics and Responses of Soil C–N Dynamics	Diego Pinzon Tsinghua University
210	31984	Sample storage conditions impact extracellular DNA yield and subsequent soil biodiversity assessments	Philippe Belliard Universität Innsbruck
211	33605	Breaking the Size Barrier: Surface Roughness Enables Oversized Chromium Colloids to Penetrate Plant Cell Walls	Xu, Kai Sun Yat-sen University
212	31710	Biochar application ameliorates soil and water loss on the soil-mantled karst slopes: mechanisms and benefits	Longshan Zhao Guizhou University
213	34143	Effects of crop type on the soil anti-scourability index of sloping farmland in the black soil region of northeast China	Fei Yu China Agricultural University
214	34179	Study on the Effects of Different Organic Materials on Soil Humus and Nutrients	Liming Sun Jilin Agricultural University

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215	36347	Driving Mechanisms of Antibiotic Resistance Genes in Urban Forest Soils	Ying Zhang Central South University of Forestry and Technology
216	32726	Neighbor-dependent isoflavonoid signaling triggers microbial decomposition of recalcitrant carbon in soybean rhizosphere	Rong Jia China Agricultural University
217	34624	Different parts of corn plant residue returning to field caused the differences of humus composition in quantity and humic acid in molecular level in black soil	Liu yuanbo College of Resource and Environmental Science, Jilin Agricultural University
218	31876	Reassessment of the anthropogenic soils' classification of Slovakia – basic principles and criteria	Jaroslava Sobocká National Agricultural and Food Centre, Soil Science and Soil Conservation Department Bratislava, Slovakia
219	34124	Counteracting warming-induced soil organic matter loss via cyanobacteria enhanced glomalin-mediated aggregation	Haowei Ni, Weigen Huang, Sen Li, Chengrong Peng, Xiaoyue Wang, Jixian Ding, Jizhong Zhou, Jiabao Zhang, Yuting Liang Institute of Soil Science, Chinese Academy of Sciences
220	36083	Soil drying accelerates CO2 emissions in global cold and wet ecosystems	Shaobo Sun Tianjin University
221	32012	Root-soil interactions govern soil organic nitrogen dynamics under acid rain and nitrogen deposition	Xiongfei Zhang 1Nanjing Forestry University
222	34748	Future Soil Nutrient Dynamics and Acidification Risk in Subtropical China under SSPs	Chao Xiao Jiangxi Agricultural University
223	35053	Mechanisms and machine learning–based load estimation of phosphorus runoff losses in Chinese rice cropping systems	Junjia Qi Ludong university
224	32551	Response Of Maize Growth and Phosphorus Uptake to Phosphorus Application in Maize/Alfalfa Intercropping System	Ziqi Li Inner Mongolia Agricultural University

225	33481	Long-Term Organic Fertilization Enhances Particulate Organic Matter Accumulation through Macroaggregate Formation in the Loess Plateau	Ting Shi 1 Soil Health Laboratory in Shanxi Province, Institute of Eco-environment and Industrial Technology, Shanxi Agricultural University, Taiyuan 030031, China 2 College of Resources and Environment, Shanxi Agricultural University, Taigu 030801, China 3 School of Environmental and Resource Sciences, Shanxi University, Taiyuan 030006, China
226	35576	An open-path nitrous oxide laser analyzer for eddy covariance flux and mobile monitoring	Ruisheng Jiang HealthyPhoton Technology Co., Ltd
227	33298	Mechanisms of low carbon sequestration efficiency in the croplands of the eastern Loess Plateau	Xinyue Su 1State Key Laboratory of Efficient Utilization of Arid and Semi-arid Arable Land in Northern China, Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences, Beijing 100081, China. 2Soil Health Laboratory in Shanxi Province, Institute of Eco-environment and Industrial Technology, Shanxi Agricultural University , Taiyuan 030031, China. 3College of Resources and Environment, Shanxi Agricultural University, Taigu 030801, China
228	34577	Hyperspectral imaging explains the leaf base to tip nitrogen spatial dynamics in maize	Yuzhe Tang Inner Mongolia Agricultural University
229	34415	Two-stage heavy metal enrichment during carbonate rock weathering-pedogenesis: Micro-scale evidence from soil-rock interface	Jian Wu Sichuan University
230	34276	Easily biodegradable organic materials serve as soil biostimulants to rapidly enhance soil aggregate stability by increasing fungal biomass	Zheng Ma Southwest University
231	34313	Straw Returning in Cooperation With Legume-Based Cover Crops A Potential Path to Promote Both Soil Organic Carbon and Total Nitrogen	Fengqiang Yan Northeast Forestry University
232	32031	Soil Erosion Characteristics and Mechanisms Affecting Maize Yield on Sloping Farmland in the Chinese Mollisol Region	Yuwen Jin Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences

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234	32452	One-time root-zone nitrogen application enhances nitrogen utilization and yield of faba bean by reducing nitrogen loss in the plateau of Southwest China	Xinyuan Lu Insititute of soil science,CAS
235	35829	Effects of Crop Association on Soil Extracellular Enzyme Stoichiometry in Erosion-Prone Sloping Farmlands in the Rocky Mountainous Region of North China	Lei Wang Beijing Academy of Agricultural and Forestry Science
236	31941	Interactive Effects of Compost, Clay, and Plant Presence on Soil Aggregate Fractions and Biochemical Properties in Sandy Soil	Linda Ernawati Lindongi The University of Wastern Australia
237	36324	Synergistic Effects of Irrigation Regimes and Duckweed Species on Microplastic Dynamics in Paddy soil	Zhenchang Wang Hohai University
238	33053	From High-REE Backgrounds to Global Oceans: Coordination Chemistry Drives Lanthanide Substitution in Calcium-Binding Domains	Hanpu Yu School of Environmental Science and Engineering, Sun Yat-Sen University
239	36082	Upcycling Rare Earth Element Hyperaccumulator Biomass toward High-Performance Catalysts	Cuiling Huang School of Environmental Science and Engineering, Sun Yat-sen University
240	33952	Spatiotemporal Evolution of Cropland Soil Organic Carbon Stocks in the Tuojiang River Basin over the Past Century	Qi Wang Sichuan Agricultural University
241	320B11	How organic slow-release nitrogen fertilizer controls rice yield and greenhouse gas emissions under intermittent irrigation regime in paddy fields	Shurong Hao Hohai University
242	33756	Mapping Soil Cadmium Pollution with Explainable Deep Learning: A Geospatial AI Approach in Dongguan, China	Wenhao Zhao Chinese Research Academy of Environmental Sciences
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244	36015	Unveiling soil organic carbon sequestration potential and driving factors of global black soil: A meta-analysis	Naiwen Zhang Northeast institute of Geography and Agroecology, Chinese Academy of Sciences

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247	33971	Temperature effects on nutrient biogeochemistry along a climosequence of forest soils	Bielnicka Aleksandra Weronika Gyeongsang National University
248	35916	Oxygen isotopes reveal contrasting contributions of soil nitrate pools to leaching in forests under semi-arid climate	Zhong-Cong Sun Institute of Geochemistry, Chinese Academy of Sciences
249	32619	Effects and Mechanisms of Soil Heterogeneity on Soil Organic Carbon Mineralization	Jing Yan Central South University of Forestry and Technology
250	34824	Arbuscular Mycorrhizal Fungi and Iron-Modified Peat Couple Heavy Metal Immobilization with Organic Matter Stabilization	Minghan Wang Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
251	33759	Precipitation-driven carbon–nitrogen dynamics shape soil carbon stability and resilience in semi-arid grasslands	Na Li Center for Eco-Environmental Sciences, Chinese Academy of Sciences
252	33485	Organic Fertilizer Substitution Reshapes Carbon Component Distribution in Soil Aggregates Driving Niche Differentiation of Nitrogen Functional Microor-ganisms and Regulating Nitrogen Use Efficiency	Bingqian Xu Chinese Academy of Agricultural Sciences
253	34120	Appropriate nitrogen combined with controlled irrigation enhances rice productivity by optimizing rhizosphere microenvironment	Yuxuan Zha Sichuan University
254	33154	From Microbial Acclimation to Keystone Degraders: Uncovering Quinclorac Biodegradation in Farmland Soil	Danning Li South China Agricultural University
255	35251	Mapping and Driving Factor Decomposition of Regional Soil Health Assessment Based on Machine Learning	Junfu Li School of Land Science and Technology, China University of Geosciences(Beijing)
256	34004	Evolutionary engineering of microbial communities to combat aluminum toxicity in acidic soils	Meitong Jiang, Yuting Liang State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences

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257	34636	Land-use types alter soil-microbial C:N:P stoichiometry and phosphorus-related imbalance a semi-arid agro-pastoral ecotone	Yutong Zhang Institute of Grassland Research, Chinese Academy of Agricultural Sciences
258	36482	Impacts of precipitation and heat changes on agricultural water resources and grain production in the North China Plain	Wang Xin College of Hydraulic and Civil Engineering, Ludong University, Yantai 264025, China
259	33753	Microbial mechanisms of nitrogen- calcium ratio regulating nutrient uptake in poplar	Xiaohang Weng Liaoning Academy of Forest Sciences
260	34965	Biological Approach to Phosphorus Stewardship in Calcareous Soils	Mahdi Shahabirokni Ferdowsi University of Mashhad
261	32849	Sensor-based monitoring of Soil EC responses to nitrogen and potassium fertilization under laboratory and field conditions	Su Kyeong Shin Chungbuk National University
262	35103	Using hedgerow-grass ditch systems in controlling nitrogen and phosphorus losses in citrus orchards under varying rainfall	Xinmei Zhao College of Resources and Environment, Southwest University,Yunnan Academy of Agricultural Sciences
263	32536	A global dataset of soil microplastics (2005-2026)	Peiwen Wu Zhejiang University
264	36255	Performance and Mechanism of the Iron-Driven Electron Transfer Mediated Adsorption for PFOA and PFOS by the Iron-Carbon Composite	Aonan Nie China University of Geosciences (Wuhan), Institute of Soil Science, Chinese Academy of Sciences
265	34096	Effects of Antibiotic Stress on Soil Microbial Diversity, Community Assembly, and Ecological Interactions	Jialin Tan South China Agricultural University
266	36256	Upcycling Solid Wastes into Magnetic Hierarchical Porous Adsorbents for Micro- and Nano-plastics Removal from groundwater	Jiyuan Zhang Institute of Soil Science, Chinese Academy of Sciences China University of Geosciences（Wuhan）
267	30974	Trace Elements Accumulation Patterns in Cryoconites and Periglacial Soils of the Central Caucasus Mt (Russia) and Northern Tian Shan Mt (Kazakhstan)	Ivan Kushnov St Petersburg State University
268	31936	Predicting Current and Future Erosion Risk across NSW, Australia	Esther Zhu State Key Laboratory of Soil and Water Conservation and Desertification Control, Institute of Soil and Water Conservation Northwest A&F University, Yangling, Shaanxi, 712100, China

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270	31859	Effects of tillage practices on environment, energy, and economy of maize production in Northeast China	Yang Zhang Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
271	32173	A Bacillus paramycoides strain and its application in wastewater treatment	Yinglu Tao Qingdao University of Technology
272	32657	Straw-Induced Carbon Dynamics in Saline Soils:Insights from CO_2Emissions toSoilOrganic Carbon Sequestration	Shi Cailing Qingdao University of Technology
273	32317	Retrieval of Soil Organic Matter for Soils with Different Textures in Northeast Black Soil Region Using Hyperspectral Remote Sensing	Ma Minghui Shandong Agricultural University
274	34038	Metallic micronutrients bioavailability and pH co-regulated soil microbial diversity and community structure in degraded desert steppe	Huhaina Inner Mongolia Agricultural University
275	34303	Microbial-Driven Humification of Sugarcane Leaf Residues in Lateritic Soils	Xi-Mei Xue State Key Laboratory of Regional and Urban Ecology, Institute of Urban Environment, Chinese Academy of Sciences
276	34443	Study on Spatial Distribution Characteristics of Soil Organic Matter in Tea Gardens of Laoshan District, Qingdao Based on GIS and the Impact of Different Altitudes	Pengfei Sun Qingdao Agricultural University
277	31563	Hydraulically informed Bayesian regularization improves isotope-based inference of root water uptake	Han Fu Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
278	35443	From DOM to Methane and Arsenic Release: Soil as a Key Control in Paddy Soils	Shuqiong Kong Yangtze University
279	33904	Contact Electrification at Iron Mineral–Water Interfaces Triggers Surface Iron Redox and Reactive Oxygen Species Generation	Xuewei Wang Sun Yat-Sen University
280	36054	Machine learning reveals that duration dominates rate in driving soil nitrogen cycling responses to long-term fertilization	Beilei Wei Guangxi University

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282	32172	Effects of the size of biodegradable superabsorbent polymers on interrill erosion	Takahiro Tatsuno Hokkaido University
283	36361	Land use effects on soil carbon retention through glomalin-mediated aggregation	Ying ZHAO Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
284	31826	Climate-driven shifts in microbe-mediated home field advantage in litter decomposition	Yixing Deng Institute of Applied Ecology, Chinese Academy of Sciences
285	320B68	Effects of soil management strategies on maize and soybean yields in northeast China: A meta-analysis	Ming Gao Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
286	33463	Comprehensive Assessment and Spatial Variability of Soil Health in Fruit Sugarcane Fields of Wengyuan, Northern Guangdong	Ke Yi Shaoguan University
287	34436	Ecosystem service value of conservation tillage with cover crop-maize intercropping in the black soil region of Northeast China	Xiaobo Ba Institute of Applied Ecology, Chinese Academy of Sciences
288	32558	Microbial cheating is a widespread resource acquisition strategy in soils	Yingyi Fu University of Edinburgh
289	32297	The process of dissimilatory nitrate reduction to ammonium mediated by microorganisms	Xuejiao Huang Guangxi University
290	36007	Drivers of soil quality and maize yield under long-term tillage and straw incorporation in Mollisols	Chunzhu Liu Northeast Institute of Geography and Agroecology Chinese Academy of Sciences Center for Agricultural Research
291	35787	Effects of film mulching and straw retention on soil labile nitrogen pool, enzymes and ammonia volatilization in the root zone of winter wheat	Huitong Li College of Life Sciences, Yan'an University
292	33394	Photodegradation of clindamycin by biochar-derived dissolved organic matter is simultaneously regulated by ROS generation and binding effect	Lin Wang Institute of Agricultural Resources and Environment, Sichuan Academy of Agricultural Sciences, Chengdu, 610066, China

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293	36020	Soil-Based Assessment of Lead Release and Contamination Risks Associated with Lead-Saturated Biochars	Chong Li University of Alberta
294	31952	Root exudate-mediated bacterial networks enhance particulate and mineral-associated carbon sequestration in grass-covered citrus orchards	Ludan Chen Institute of Mountain Hazards and Environment, Chinese Academy of Sciences
295	32625	Effects of Full Maize Straw returning on Soil Physical Properties and Maize Yield	Han-yu SU Shenyang Agricultural University
296	33546	Bio-organic fertilizer improves soil carbon sequestration and structure in intensive greenhouse cultivation	Lijun Ren College of Land and Environment, Shenyang Agricultural University, Shenyang 110866, People's Republic of China; 2 Institute of Bio- and Geosciences (IBG), Forschungszentrum Jülich, Jülich 52428, Germany
297	35681	Afforestation improves soil multifunctionality through microbial activity and SOC molecular diversification	Yue Li South China Botanical Garden, the Chinese Academy of Sciences
298	32739	Effects of Different Agricultural Management Practices on Nitrous Oxide Emissions from Cropland	wangchuanzong Sichuan Agricultural University
299	319B10	A Novel Rainfall-Based Model for Forecasting Soil Moisture Content	Daniel Gu Hamilton High School
300	31813	Black Soldier Fly Gut Microbiota as a Green Alternative to Chemical Fungicides	Yudong Ren Shanghai Jiao Tong University
301	32890	Transformation of Soil Organic Matter in Agricultural Soils in Subarctic Climatic Conditions	Timur Nizamutdinov St. Petersburg State University
302	34280	Characteristics of soil phosphorus profile distribution in degraded black soilareas and effects of tillage patterns on root zone phosphorus supply barriers	Huajie Zhang China Agricutural University
303	34022	Divergent ecohydrological adaptation mechanisms of restored vegetation driven by micro-topography:Structural decoupling, hydro-thermal trade-offs, and competitive depletion	Fengwei Tuo Chang'an University

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305	319B37	Phylogenetic and metabolic diversity of mercury-methylating microorganisms in paddy soils across China	Rui Sun College of Resources and Environment, Huazhong Agricultural University
306	33002	Differential impacts of moisture fluctuation on dissolved organic matter under different water availability by regulating bacterial network and functional structure	Jiayu Liu South China University of Technology
307	32632	Distribution Characteristics of Soil Labile Organic Carbon Fractions in Coastal Paddy Profiles with Different Fertility Levels	Le YANG College of Land and Environment Shenyang Agricultural University Shenyang 110866 P.R.China
308	32773	The Effect of Nutrient Management on Yield and Fruit Quality of Nam Hom Coconut in Thailand	Jiraphat KWANSUE Department of Soil Science, Faculty of Agriculture at Kamphaeng Saen, Kasetsart University, Nakhon Pathom, Thailand
309	320B42	Slope aspect regulates constrained soil organic carbon dynamics under long-term grazing exclusion in semiarid grasslands	Shulei Dong Northwest A&F University
310	32458	Remediation of Cadmium-Contaminated Soil via the Coupling of Marigold-Water Spinach Intercropping and Passivation	Hui Sun Shandong Agricultural University
311	32793	Determination of Nitrogen in Maize Plant Using Near Infrared Spectroscopy and Partial Least Squares Regression	Yue MA Shenyang Agricultural University
312	34749	Methodological insights in the determination of soil SOC:clay ratio at farm level in Southern Belgium	Colinet Gilles University of Liege
313	32816	Aging of plastic polymers used in agriculture affects sorption of pesticides and their subsequent release	Marco Contin University of Udine
314	34838	Nitrogen Characteristics and Sustainable Management in Global Sloping Croplands	Wenjing Zhou Sichuan Agricultural University
315	33110	Microbial Community Succession in the Rhizosphere of Citrus Grandis Exocarpium under Long-Term Fertilization and Plant Disease Stress	Kaiqing Yang, Zhepu Ruan, Rongliang Qiu South China Agricultural University

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317	35781	Chemical carbon sequestration dominates leguminous green manure return, whereas physical carbon sequestration prevails in non-leguminous systems	Huitong Li College of Life Sciences, Yan'an University
318	33828	Can Soil Inorganic Carbon Be Estimated from Visible-Near Infrared Reflectance Absorption Depth?	Jiajing Gu Nanjing University of Information Science and Technology
319	36555	Root dynamics govern the vertical transport of microplastics by reshaping soil pore networks	Xiaolong Wu Chinese Academy of Tropical Agricultural Sciences
320	35954	Nitrogen, manganese, iron and carbon resource acquisition are potential functions of the wild rice Oryza rufipogon core rhizomicrobiome	Changji Wang Netherlands Institute of Ecology (NIOO-KNAW)
321	34321	Four Decades of Soil Organic Carbon Dynamics in Seasonally Flooded Haor Wetlands of North-eastern Bangladesh Amid Landscape Transformation	Md Jashim Uddin University of Dhaka
322	35564	Effect of polymeric materials on mobile forms of heavy metals the upper soil horizon at different levels of contamination in Umbric Albeluvisols	Calero Herrera Vanessa Katherine Patrice Lumumba Peoples' Friendship University of Russia, Moscow, Russian Federation
323	33809	Identification of key bacterial taxa from native microbiome for soil monitoring after wildfire	Ricardo Romero Arguelles Universidad Autonoma de Nuevo Leon
324	34471	More than a metaphor: soil memory as methodological framework	Francisco Sérgio Bernardes Ladeira Unicamp
325	36204	Soil aggregate stability index independent from pre-stress aggregate size distribution: A test from soils affected by the water level fluctuation in the Three Gorges Reservoir, China	Gratien Nsabimana Institute of Mountain Hazards and Environment, Chinese Academy of Sciences
326	32176	Specific Features of Urbic Technosol (Transportic) Functioning in Cities of the Steppe and Subtropical Zones of Southern Russia	Gorbov Sergey Sirius University of Science and Technology
327	36388	Organic Waste-Derived Soil Amendments for Climate-Smart Soil Fertility Management	YIHUAI HU Biogas Institute of Ministry of Agriculture

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328	32785	How Periglacial Past Affected the Evolutionary Pathways of Holocene Temperate Soils: Northern Part of the East European Loess Belt	Vasily Lobkov Institute of Geography Russian Academy of Sciences
329	34507	What would our soils say if they could speak?	Pedro Henrique Ribon Ogera Universidade Estadual de Goiás
330	34947	Optimizing Methods for Selective Removal of Soil Nematodes to Study Their Functional Roles: Toward Effective Techniques with Minimal Impact on Soil and Plants	Robin Beckx Ghent University
331	33813	Metagenomic tools for soil health–oriented microbial monitoring in agricultural systems in Mexico	Mayra Alejandra Gomez Govea Universidad Autonoma de Nuevo Leon
332	33549	Quantification of Microplastics in Urban Compost-AmendedFarmland Soil Using an Elutriation Device	Luigi Paolo D'Acqui Research Institute on Terrestrial Ecosystems - IRET, National Research Council - CNR
333	32295	Hydrothermal Carbonization of municipal Organic Waste: Is it a sustainable pathway for soil restoration in highly urbanized regions?	Laurence Le Brun Universidad Autónoma de México (UNAM)
334	34095	Is the tobacco carbon footprint influenced by soil attributes?	Vanderlise Giongo Embrapa
335	34051	Low-Carbon Wheat Program: Integrating Soil Quality and Soil Carbon Dynamic into Life Cycle Assessment	Vanderlise Giongo Embrapa
336	35669	Legacy soil information in the Northern Regions of Ghana: Implications for Integrated Soil Fertility Management (ISFM)	Dr. Edward Yeboah CSIR-Soil Research Institute, Ghana
337	32815	Mineral–Microbial Coupling Rebalances Soil Microbiome and Alleviates Aluminum Toxicity for Improving Nutrient Availability in Acidic Soil	DEBO HE Institute of Mountain Hazards and Environment. CAS
338	32654	Impact of Enhanced Silicate Rock Weathering on Soil CO_2Dynamics in Agricultural Field: Field Monitoring and Numerical Simulation	Shoichiro Hamamoto Hokkaido University
339	33142	Regenerative Management Reduces Urine–Derived N2O Emissions from Dairy Pastures	Tharindi Lakshani Lincoln University, New Zealand
340	34486	Poultry Litter Rate Drives Surface Soil Nutrient Accumulation More Than Row Spacing in a No-Till Cotton System	Sainfort Vital Mississippi State University

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341	34489	Soil Fertility and Cotton Growth Responses to Poultry Litter and Rye–Clover Configuration in a Mississippi Cotton System	Sainfort Vital Mississippi State University
342	33697	Influence of soil pH and cover crop residues on the abundance of ammonia oxidizing microorganisms and nitrous oxide emissions in tropical agriculture soils	Lucas P. Canisares University do Sao Paulo
343	35952	Synergistic Effects of Water and Straw Management on Greenhouse Gas Dynamics and Carbon Sequestration in Subtropical Rice Ecosystems using Multichannel Automated Chamber System	Chuan-Fu Kao National Taiwan University
344	34447	The Soil Factors of Palsas Resilience in an Industrial Wasteland in the Arctic Region (Monchegorsk, Russia)	Pavel Ignashov Institute of Biology of the Karelian Research Centre of the Russian Academy of Sciences
345	33281	Long-term persistence of immobilizing agents for reducing the phytoavailability of heavy metal (loid)s in contaminated soil	Hyunmin Lee Department of Smart Agro-industry, Gyeongsang National University, Jinju, Republic of Korea
346	34287	PRODUCTIVE DAIRY PASTURE WITHOUT N - FERTILISER	Gary Clark La Trobe University
347	34847	Characteristics of Serpentinite Soil in Northen Hokkaido	Mei Tsuchihashi University of Tsukuba
348	34702	Microplastic Contamination in Soil around the Aral Sea in Uzbekistan	Natsuto Okubo University of Tsukuba
349	32560	Dissipation of 13C-Sulfamethoxazole in Tropical Soils under Contrasting Management Systems and Microplastic Contamination	Jussara Borges Regitano Department of Soil Science, ESALQ/USP
350	33426	Pure Water-Based Nano Pesticide-Fertilizer Co-delivery for Soil-Friendly Crop Nutrition and Protection	Changcheng An, Yi Sun, Yaqi Jiang, Xueqing Chang, Yaping Lyu，Peng Zhang University of Science and Technology of China
351	32688	Enzyme Activity and Biological Quality Scores in Tropical Soils Exposed to Cadmium and Chromium	Rayana da Rocha Sarmento University of São Paulo
352	32700	Combined Wide Ridges with Straw Mulching and Salt Scraping Significantly Inhibit Topsoil Salinity Accumulation and Enhance Soil Water Retention	Lili Tan Ludong University

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353	35313	Long-term effects of land-use change from paddy to orchard, pasture, and upland on soil carbon and nitrogen pools after 50 years at Yamagata University Farm, Japan	Phansa Udkham Graduate School of Agriculture Science, Yamagata University, Japan
354	36434	Analysis of four soil moisture products in China: Spatial-temporal distribution and uncertainty	Jiayi He Sichuan Agricultural University
355	34822	Organic manure substitution of chemical nitrogen rather than phosphorus optimizes soil quality and microbial functions in acidic red paddy soil	Junquan Chen1,2, Yanqi Guo1,2, Guanjie Jiang1,2, Taihui Zheng1,2* 1. Key Laboratory of Agricultural Resources and Ecology in Poyang Lake Basin of Ministry of Agriculture and Rural Affairs in China; 2. School of Land Resources and Environment, Jiangxi Agricultural University
356	32413	Enhancing inherent soil productivity to support sustainable wheat production in China	Yinghua Duan Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences, Beijing, China
357	36336	Sensitivity analysis of agricultural hydrological processes to climate change in the North China Plain	Shen'ao Feng Ludong University
358	32064	Exogenous Chemicals Used to Alleviate or Salvage Plants under Flooding/Waterlogging Stress: Their Biochemical Effects and Perspectives	Lingyue Wang Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences
359	35844	Grassland legacy effects regulate nutrient leaching losses in cropland phases in long-term grassland-crop rotations	Sen Gu Institute of Hydrobiology, Chinese Academy of Sciences
360	32220	Rapid induction of NH_4^+ efflux in rice roots under high-ammonium stress and its association with varietal differences in ammonium tolerance and ammonium-utilization efficiency	Dong-Wei Di Institute of Soil Science, CAS
361	34279	Integrating plant–microbial diversity and mixed litter decomposition to enhance nutrient coupling and productivity in intercropping systems	Shumin Li Resource and Environmental College, Northeast Agricultural University, Harbin, China
362	320B22	Modeling the spatiotemporal changes in soil moisture under different vegetation types in the farming-pastoral ecotone of northern China	Jingshun Zhang Northwest A&F University
363	33123	Rhizosphere AMF-Bacteria Synergy Driving Soil Phosphorus Activation in Maize//Soybean Intercropping	Han Jiaqi Yunnan Agricultural University

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364	35895	A Novel Soil Salinity Inversion Method Based on BO-XGBoost and 3D Spectral Feature Space in the Yellow River Delta	Runze Zhang Shandong University of Technology
365	36362	Reduced below-ground carbon allocation triggers contrasting nitrogen dynamics in rhizosphere and bulk soils	Dengjie Zhou School of Life Science and Technology, Northwestern Polytechnical University
366	33838	Effects of Acai Seed Biochar Amendment on Chemical and Biological Properties of Brazilian Soils	Andre Freire Cruz Kyoto Prefectural University
367	34101	Evaluating Cross-Regional Models for Predicting Soil Carbon and Properties in Taiwan Using Mid-Infrared Spectroscopy and Machine Learning	Cheng-Hsien Lin National Chung Hsing University
368	34989	Effective suppression of methane emission using ethephon and polymer mixture	Ho Jun Shin Gyeongsang National University, Republic of Korea
369	33104	Long-term nitrogen fertilization effects on soil mineralogy and micromorphology: The Magruder Plots	DeAnn Presley Kansas State University
370	35688	Integrating regional critical boundaries and nitrogen-phosphorus limitation for global water quality	Yuanyuan Chen Zhejiang University
371	34850	Differences in chemical properties and soil classification of Andosols under varying volcanic ash deposition in the caldera rim of Mt. Aso, Kyusyu Islands, Japan	HARUKO SAITO Tokyo University of Agriculture
372	32859	Analysis for structure of soil layer composed of large clods using X-ray CT image	Yoshihiro Matsumoto National Agriculture and Food Research Organization NARO
373	34875	Impact of Warming and Fertilization on Viral Communities in Agricultural Soils	lixinyi Zhejiang University
374	32450	Optimizing water and potassium management enhances yield and water-nutrient use efficiency through improved soil nitrogen availability in citrus orchards	Yuxuan Zha Sichuan University
375	33197	Long-term fate of photosynthetic carbon in desert plants: microbial necromass-driven pathways for soil carbon stabilization	Yang Yang Xinjiang Institute of Ecology and Geography

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376	32794	Upcycling Rare Earth Hyperaccumulator Biomass into Functional CaS:Ce Phosphors: A Coupled Remediation–Utilization Strategy for Degraded Rare Earth Mine Soils	Candie Xie Sun Yat-sen University
377	34482	Comparison for colloidal stability and aggregation behavior of fulvic and humic acids: effects of cations and pH	Chunli Wang Forschungszentrum Jülich
378	32872	Assessment of the reliability to extract soil microplastics by a flotation sieving method	CHEN YEN-CHENG National Chung Hsing University
379	34610	Parameters Optimization of RothC Model for Simulating Soil Organic Carbon Dynamics: A Case Study of Rice Straw and Soybean Residue Inputs	Liao, ChienKai National Chung Hsing University
380	33663	Effects of fertilizers on arsenic accumulation in ratoon rice: implications for human health risks	Chang-Shiu Li National Chung Hsing University
381	36084	Organic fertilization reduces cadmium bioavailability via enhanced binding to organic fractions and Fe-bearing minerals	Fu-Sheng Sun Tianjin University
382	33237	Localized SCORPAN-based machine learning framework for spatial-temporal tracking (2000-2025) of soil carbon dynamics in Chile	Raul Roberto Poppiel University of São Paulo
383	33912	Influence on the structural stability of aggregates and soil organic carbon sequestration with different organic materials application: Analyzed from the perspective of the characteristics and structure of humic acid in aggregates	LiuyuZhang State Key Laboratory of Nutrient Use and Management and Key Laboratory of Agro-Environment of Huang-Huai-Hai Plain, and Ministry of Agriculture and Rural Affairs, College of Resources and Environment, Qingdao Agricultural University, Qingdao, People's Republic of China.
384	34894	Century-long spatiotemporal variation in cropland soil erosion and the roles of anthropogenic factors in the Tuojiang River Basin, China	Yuchen Zhong Sichuan Agricultural University
385	32916	CO2 fixation by soil algae in agricultural lands	Jun Murase Nagoya University
386	32912	Engaging Youth with Soil Science through an Original Picture Book	Shunhua Yang Institute of Soil Science, Chinese Academy of Sciences

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387	32999	Oxygen-adaptation traits govern the functional resilience of soil N_2O-reducing communities	Siyu Yu Shanghai Jiao Tong University
388	32602	Potassium Precipitation Efficiency at Different Dilution Ratios in Thai Sugarcane Molasses	Karima Amphong Kasetsart University
389	32469	Nutrient status and fertility constraints of highly weathered oil palm-growing soils in Thailand	Pornpavee Somkiatikul Kasetsart University
390	32653	Effects of Foliar Potassium Nitrate on Chlorophyll and Leaf Macronutrients in Sugarcane	Weeraya Lekwong Kasetsart University
391	32597	Soil fertility and nutrient status of long-term durian orchards under organic–chemical management in Chanthaburi, Thailand	Daojarus Ketrot 1Department of Soil Science, Faculty of Agriculture, Kasetsart University, Bangkok 10900, Thailand 2Agricultural Chemistry Program, Faculty of Agriculture, Kasetsart University, Bangkok 10900, Thailand
392	320B67	Bacillus aryabhattai Alleviates Manganese Toxicity and Enhances Phytoremediation Potential of Miscanthus sinensis	Changrui Liu Central South University of Forestry and Technology
393	32610	Understanding spatiotemporal potassium availability from polyhalite in the fertosphere of contrasting soils	Joy Eloiza M. Rosales Adelaide University
394	320B69	Sulfur nanoparticles enhance Cd-phytoremediation in Salix chaenomeloides via alleviating phytotoxicity and modulating rhizosphere microbiota	Yaping Wang Central South University of Forestry and Technology
395	35459	A Field Study to Examine Applicability of a Novel Groundwater in-situ Bioremediation Method to Co-optimize Dechlorination of Chlorinated Ethenes and Subsurface Ecological Stability	HYUNSOO LIM Yonsei University
396	32860	Advancing Soil Fertility Management Using Tuna Meal Organic Waste: Impacts on Rhizosphere Microenvironment and Tea Quality	Yujie Song United Graduate School of Agricultural Science, Gifu, Japan
397	32050	Bioremediation of soil contaminated with boron by using biochar and barley plants	José Luis Moreno CEBAS-CSIC
398	32405	Synergistic regulation of dissolved organic matter and microbial community on microbial necromass accumulation	Yuanchen Zhu Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences

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399	32892	Coastal Acid Sulfate Soils and Their Mapping in Finland	Jaakko Auri Geological Survey of Finland
400	321B07	CIT2 is involved in coumarins trafficking, mediating Fe uptake	Rossille INRAE
401	33641	Assessing Heavy Metal Pollution Levels and Associated Ecological Risks in Peatland Sediments of the Mekong Delta, Viet Nam	Nguyen Ngoc Son Hai Thai Nguyen University of Agriculture and Forestry (TUAF), Thai Nguyen city, Vietnam
402	35380	Modeling runoff and soil erosion amounts affected by slope gradient and length in black soil slope farmland of Northeast China based on APSIM	Zizhong LI China Agricultural University
403	36059	Soil Physical, Chemical, and Biological Properties Across a Prairie Restoration Chronosequence in Southern Wisconsin	Mengmeng Luo University of Wisconsin-Madison
404	36199	Selected forms of potassium in soils of the steppe and desert zones of Mongolia	Tomasz Kaczmarek Department of Soil Science and Microbiology, Poznań University of Life Sciences
405	33866	The impact of trees on soil microbial biomass and CO2 emissions from fertilized soil	Walkiewicz Anna Institite of Agrophysics, Polish Academy of Sceinces
406	31621	Mycobacterium vaccae: The Interconnection between Soil Health and Human Health	Winfred Espejo Department of Soils & Natural Resources, Facultad de Agronomía, Universidad de Concepción, Chillán, Chile
407	33843	Multifractal scaling of soil particle size distributions along a semi arid toposequence.	Peter Ndubuisi Eze University of Potsdam, Golm Campus, Germany
408	35223	Microbiome-enabled biochar tightens nitrogen cycling and boosts wheat water productivity under regulated deficit irrigation	Mir Moazzam Ali Talpur College of Agricultural Science and Engineering, Hohai University, Nanjing, China
409	321B06	Towards the identification of microbial indicators of soil health: a one-year field study in a Mediterranean olive grove	Laura Gismero-Rodríguez IG-CSIC
410	36233	Effects of Chlorella Application on Soil Quality and Crop Productivity in Saline–Alkali Soils of Xinjiang, China	Xiaoyang WANG Xi'an University of Technology
411	34851	A streamlined soil database strengthening near- real- time interoperability for soil monitoring networks and services	Andrea Lachi CREA (Research Centre for Agriculture and Environment)

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412	33841	X-ray CT and nutrient analyses of effects of polyhalite on wheat establishment	Roman Sadeghian University of Nottingham
413	31969	Relationship between agricultural water and soil resources carrying capacity and crop yield with long-term plastic film mulching coupled with fertilization	ShiJiahui Shenyang Agricultural University
414	31870	Spatial Differentiation and Driving Factors of Soil Compaction in the Songnen Plain Black Soil Region Based on Random Forest and Geodetector	WANG Bingjie Shenyang Agricultural University
415	32381	Construction of the Integrated Soil Database for Hydrological Modeling in Brazil	Luís Carlos Timm Federal University of Pelotas
416	34668	Effect of Intermittent Irrigation on Rice Growth and GHG Emissions in Rice Paddies on Acid Sulfate Soils	SakuraYamaguchi University of Tsukuba
417	34887	Impact of Blast Furnace Slag-Based Enhanced Rock Weathering on Soil Organic Carbon Dynamics through Microbial Activity	Ye Lim Park Kyung Hee University
418	34973	Effects of long-term fertilization on soil macropore structure and hydraulic conductivity in paddy soils	Zhiduo Zhou Hokkaido University
419	33613	Bronze Age kurgans as a complex paleoarchive: data from paleosols and kurgan constructions in the steppe zone of Russia	Alyona Sverchkova Institute of Geography, Russian Academy of Sciences, Moscow, Russia
420	33210	Variations in synergistic benefits among different intercropping systems: evidence from crop, soil and soil biota in agroecosystems	Minghao Yang institute of applied ecology, Chinese Academy of sciences
421	321B11	Can nematode-based indices reflect ecosystem functioning?	Lucia Borras Ghent University
422	32861	Column experiment and numerical simulation for quantification of carbon fixation by enhanced rock weathering	Takuhei Yamasaki The University of Tokyo
423	34854	Comparison of different methods for estimating microbial biomass in biochar-amended soil	Vito Armando Laudicina University of Palermo
424	33209	Carbon and Depth Gradients Synergistically Structure Microbial Nutrient Balance and Soil Biodiversity Networks	Enping Yu Institute of Applied Ecology, Chinese Academy of Sciences, Shenyang,

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426	34603	Development of Non-destructive Soil Bulk Density Measurement Technology for Efficient and Precise Estimation of Soil Carbon Stocks	Yonghui Jung Kyung Hee University
427	35617	Soil quality and health: foundations for the agroecological transition in agroecosystems	MARIA CRISTINA MARTINS RIBEIRO DE SOUZA IFCE-SOBRAL
428	36349	Urbanization-driven forest soil greenhouse gas emissions: Insights from the role of soil bacteria in carbon and nitrogen cycling using a metagenomic approach	Gongxiu He Central South University of Forestry and Technology
429	33506	SOIL HEALTH RESPONSES TO NATURE-POSITIVE MANAGEMENT REGULATE SOIL WATER INFILTRATION IN SEMI-ARID AGROECOSYSTEMS	Prakriti Bista New Mexico State University
430	36344	A Hybrid SWAT-LSTM Framework for Daily Sediment Load Prediction in the Data-Scarce Songhua River Basin, Northeast China	Junjie Xu Beijing Normal University
431	34554	Soil health mediates diversification effects on crop resilience in tropical agroecosystems	Viviana Meneghini University of São Paulo
432	31818	Spatiotemporal Variations of Soil Hydrothermal Processes and Their Association with Mattic Layer Rupture in Alpine Soils on the Qinghai-Tibetan Plateau	wang yunzhi Shenyang Agricultural University
433	31948	Hydropedological Responses to Anthropogenic Soil Importation and Wadi Channel Narrowing in Arid Oman	Said Salim Al-Ismaily Sultan Qaboos University
434	33609	Fairy ring presence alters fungal-soil carbon/nitrogen dynamics and stable isotope ratios	Sijia Wang Forschungszentrum Jülich
435	35165	Comprehensive Soil Education Package for Achieving SDGs: Good practices in schools and universities	Takashi Kosaki Aichi University, Japan
436	36047	Depth-resolved soil organic carbon estimation: a scalable approach	Moa van Kretschmar The University of Sydney

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437	35381	Temporal Dynamics and Metabolic Profiling of Vetiver Root Exudates Under Atrazine Stress	Faming Zhang Yunnan Open University; Yunnan Agricultural University; Southwest Forestry University
438	33216	Effects of soil acidity on organic matter stabilization in Cryptomeria japonica and Chamaecyparis obtusa plantations	Ryota Hayashi Nagoya University
439	33049	National Inventory of Plastic Mulch Residues in Chinese Croplands from 1993 to 2050	Jizhao Dai Shenyang agricultural university
440	36594	Can soil protists improve plant growth?	Thi Bao Anh Nguyen The University of Melbourne
441	32694	Phosphorus availability and legacy in highly weathered soils: Unveiling the interplay with soil aggregation across diverse agricultural land uses as integrated systems	Mauricio Leite The University of Queenslad
442	34090	Metagenomics reveals microbial regulation of soil nitrogen retention and supply under nitrogen fertilizer reduction with long-term residue retention	Fangbo Deng Institute of Applied Ecology, Chinese Academy of Sciences
443	32753	Irrigation Regime and Straw-returning Mode Regulate Soil Conditions, Leaf Physiology, and Yield of Winter Wheat in Saline–Alkali Soil	Jie Zhang hohai university
444	33257	Soil extracellular vesicles harbour a distinct reservoir of antibiotic resistance genes shaped by land use	Haining Huang Department of Applied Microbial Ecology, UFZ - Helmholtz Centre for Environmental Research
445	36621	Biologically Driven Remediation of Saline–Alkali Soils Using Soil Bio-activation Technology in Arid Regions	Abdul Sami GreenTech (Shanghai) Agricultural Technology Co., Ltd.
446	34164	Characterization and Dynamics of NaOH-Extratable Organic Phosphorus Species in Soils	Yaqin Wang Xi'an Jiaotong-Liverpool University
447	35599	Selenium Dynamics in Seleniferous Soils of Punjab: Role of Organic and Inorganic Amendments in Mitigating Selenium Toxicity	savreen kaur PUNJAB AGRICULTURAL UNIVERSITY, LUDHIANA
448	32074	Evaluating the Impact of Stakeholder-Driven Agricultural Scenarios on Nitrogen Footprint and Virtual Nitrogen Factor using SWAT	Ryosuke Ogino Hokkaido University
449	33061	Effects of Calcination Temperature on the Chemical Properties of Natural and Commercial Diatomites	Wanpen Buamuang Kasetsart University

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450	32448	Regional Suitability of Soil Fertility Improvement Technologies in the Dry-Hot Valleys of Yuanmou County, Southwest China	Jinglong Liu Yunnan University
451	35950	Fusion simulations based on process-based modeling and AI technology for groundwater storage in the Mollisol Regions	Xiaoyu Zhang College of Land Science and Technology, China Agricultural University
452	33593	Effects of Crop Residue Management Strategies on Soil and Root Nematode Assemblages	Md Niraul Islam Institute of Applied Ecology, Chinese Academy of Sciences, Shenyang, China
453	34291	Intercropping and phosphorus-fertilizer application have contrasting impacts on soil carbon pools	Xiao Chuanlin China Agricultural University
454	34865	Rhizosphere physical buffering explains the growth window of suaeda salsa under combined drought and salinity stress	Bindeliya Inner Mongolia Agricultural University
455	33428	Paddy cultivation history affects soil water dynamics and water balance by altering soil physical and hydraulic parameters	Prof LI Xiaoyan College of Agriculture, Yangtze University
456	34898	Refining the RothC Model's Decomposition Rate Modifier for Moisture to Improve Soil Organic Carbon Estimation in Paddy Fields	Sunyoung Joo Kyung Hee University
457	36393	HYDRUS-2D-based Study on the Impact of Drip Irrigation and Soil Compaction on Soil Water and Salt Movement	Xiaodong Zhan Ludong University
458	321B09	Microbial community shifts reveal the multifunctional potential of biobased fertilizers in Mediterranean calcareous soils	Sana Boubehziz University of Cordoba
459	33128	Mycorrhiza-Mediated Soil Aggregate Stability under Maize//Soybean Intercropping in Acid Soil	Jian Jiao Yunnan Agricultural University
460	31181	Fundamentals of disturbed land reclamation	Androkhanov Vladimir Institute of Soil Science and Agrochemistry SB RAS
461	36285	Performance of sediment microbial fuel cells to inhibit arsenic availability in soil porewater: A laboratory study of three different Japanese paddy soils	Adhena Tesfau Bekele Tohoku University
462	32748	Global warming potential in rice paddy soil applied with different fertilization and tillage management	Mu Seong Kim Department of Life Science and Environmental Biochemistry, Pusan National University, Miryang, Republic of Korea

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463	32831	Effects of combined application of biochar and manure composts on greenhouse gas emissions and forage maize yields	Tsuyoshi Yamane National Agriculture and Food Research Organization (NARO)
464	32707	Stability of SOC and Shifts in Microbial Community Structure along Vegetation Succession in the Shrinking Area of Plateau Inland Lakes	Ming Li Nanjing Institute of Environmental Sciences, Ministry of Ecology and Environment
465	320B43	Plant-mediated regulation of soil CO_2 fluxes under experimental warming in a dryland wheat agroecosystem	Yue Zheng Northwest A&F University
466	33147	Effects of Long-term Organic Fertilization in Tea Gardens on Soil Microbial Communities and Tea Quality	ZHIWEI DENG Tarim University
467	33623	Deep soil carbon accrual by perennial energy crops offers large potential for atmospheric CO2 removal	Wei Yao China Agricultural University
468	35602	Chemical and biochemical approaches to assess the biodegradation of polyhydroxyalkanoates in soil	Maria Antonietta Rao University of Naples Federico II
469	33266	Effect of Biochar from Spent Media Growth on Kimchi Cabbage Cultivation in Upland Area	Kang, Se-Won Sunchon National University
470	33212	Effects of Long-term Chemical Fertilizer Reduction Combined with Bio-organic Fertilizer on Soil Organic Carbon Fractions and Aggregate Stability in Tobacco-planting Soil	Ting Li Yunnan Agricultural University
471	33267	Assessing the Agricultural Utilization Potential of Chicken Manure Biochar: Effects on Kimchi Cabbage Growth, Nitrogen Use Efficiency, and N2O Emissions in Upland Soil	Kang, Se-Won Sunchon National University
472	33482	Intercropping, soil microbiomes, and mycotoxin risk: mechanistic pathways for safer maize production	Yurui Tang China Agriculture University
473	33137	Interspecific interactions increase soil aggregate stability through altered root traits in long-term legume/maize intercropping	Xiao-Yang Duan College of Resources and Environmental Sciences, China Agricultural University
474	33105	The classification Salt-affected Soil in Reclaimed Agricultural Tide Land	byounghwan seo National Institute of Agricultural Sciences

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475	33138	Effects of conservation tillage combined with diversified cropping on crop productivity and soil fertility in black soil region	Zhong-yang Guo College of Resources and Environmental Sciences, China Agricultural University
476	34192	Threshold responses of soil microbial communities and functions to 18O-H2O enrichment	Fangying Qu Institute of Applied Ecology, CAS
477	34044	Effect of compaction on the number and morphology of ground-nesting bee burrows	Minghan Liu China Agricultural University
478	33515	Effect of autumn ratoon biomass on the rice growth and biomass during the following summer season under organic cultivation	ATANA MELINGUI Elie Desire The United Graduate School of Agricultural Sciences, Iwate University, Morioka, Japan
479	34242	Needle ice - an antigravity mechanism of cryogenic transformation of soils	Maria Chepurnova Moscow State UniversityLomonosov
480	35956	Assessing Future Climate Change Impacts on Soil Erosion, Agricultural Nonpoint Source Pollution, and Crop Growth in the Huai River Basin	Jiaren Hu College of Land Science andTechnology, China Agricultural University
481	32250	Decoupling potassium availability and movement in fertilizer bands across contrasting soils	Yunyun Zheng The University of Queensland
482	34371	Sustainable Management of Zinc in the Soil–Plant–Animal Continuum	Suganya S Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu, India
483	36485	Spatial distribution and formation environment of rock fragment layer in black soil region of northeastern China	Jiayi Shi Shenyang Agricultural University
484	34970	Process-based modelling of river sediment composition incorporating pedogenetic processes at the catchment scale: the Sendaigawa River basin, Japan	Atsunobu KADONO Tottori University of Environmental Studies
485	32407	Impact of soil amendments, irrigation regimes, and subsurface drainage on wheat yield in coastal saline soils	Saffi Ur Rehman College of Agricultural Science and Engineering; Hohai University, China.
486	36046	Superheated steam torrefaction could upgrade spent coffee ground to peat alternative for soilless culture	Rui Yang Institute of Urban Agriculture, Chinese Academy of Agricultural Sciences
487	32724	Cloud-Based Soil Erosion Drivers and Sediment Yield Assessment Using RUSLE-SDR Modeling in the Mangla Himalayan Watershed	Saffi Ur Rehman College of Agricultural Science and Engineering, Hohai University, China

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488	34771	Organic fertilizer application improves soil health and crop growth in acidic soil	Tingting Chang HOHAI UNIVERSITY
489	34873	Impacts of Applications of Three Wood Ash Types on Elemental Dynamics and Crop Growth	Chuanzhen Jian Graduate School of Agriculture, Tohoku University, Sendai, Japan
490	32414	Decoding the Rubik's Cube of Soil Health: A Genoform-Management-Phenoform Framework for Cropland	Tao Wang China University of Geosciences, Beijing
491	35025	Effects of subsurface drainage systems on water and salt transport characteristics of saline–alkali soil	Yujie Zhang Nanjing Hydraulic Research Institute
492	34915	Organic amendments affect microbial soil health indicators in a saline soil	Yujie Zhang Nanjing Hydraulic Research Institute
493	33126	Maize//Soybean Intercropping Enhances Soil Multifunctionality in Low-fertility Red Soil and Its Response to Biodiversity Effects	Kangxian Zhang Yunnan Agricultural University
494	32868	Potential for Rapid Improvement of Low-Fertility Soils by Cattle Manure Compost Application	Muxiye Tohoku University
495	32673	Podzols of the north of Western Siberia – the bridge between modern soil formation and paleocryogenesis	Maria Chepurnova Lomonosov Moscow State University
496	34827	Temporal Dynamics of Soil Organic Carbon Fractions and Microbial Activity Across a Chronosequence of Abandoned Paddy Fields in Korea	Seoyeon Kim Kyung Hee University
497	34286	Variations in Rhizosphere Microbial Community Structure and Function Among Diploid, Triploid, and Tetraploid Watermelon Cultivars	Qingshan Li Guangxi University
498	35456	Cell-level Toxicological and Biodegradation Responses of Pure Bacterial Cultures to Per- and Polyfluoroalkyl Substances (PFAS)	Gayeon Jang Yonsei University
499	34736	Soil virome dynamics and ecological regulation during revegetation of rare earth tailings	Yong He Nanchang University
500	35046	Land use overrides soil type in shaping soil N2O reduction potential through nosZII-associated communities	Xin Xia Zhejiang University

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502	33131	Effect of Biogenic Synthesized Nano Sulphur on growth, yield and quality of Soybean	Dr. Sandeep Sevakram Hadole Dr. Panjabrao Deshmukh Krishi Vidyapeeth , Akola, INDIA
503	34089	Exploiting Iron-Efficient Groundnut Genotypes to Combat Iron Deficiency in Calcareous Soils	Meena S Tamil Nadu Agricultural University, Coimbatore, India
504	33279	Combined application of mineral and bio-organic fertilizers improves coffee yield and quality by enhancing soil multifunctionality	Yunhao Feng Yunnan Agricultural University, College of Resources and Environment
505	32720	Effect of dry direct-seeded and seedling-transplanted rice cultivation on methane emissions from a paddy field in Hokkaido, Japan.	Mariko Shimizu Civil Engineering Research Institute for Cold Region
506	33124	Effects of Biological Nitrification Inhibitors on Maize Yield and Nitrogen Utilization in Red Soil	Xingkui Zhu College of Resources and Environment, Yunnan Agricultural University
507	32308	Quantifying the direct and indirect effects of soil-forming factors on clay mineral abundance	Rina Matsuki Kyoto university
508	32162	Comparative experiments and analysis of water and nitrogen dynamics in bare and rice fields using HYDRUS-1D	Juxiu Tong China University of Geosciences Beijing
509	35091	Effects of three differently activated biochars on greenhouse gas emissions from a fertile clay loam in boreal conditions	SAMUEL AMOAH University of Helsinki
510	33471	Long-Term Effects of Organic Manure on Rice Productivity and Soil Nutrient in Paddy Systems	VALLENTIA NISRINA QURRATUAIN ANNIDA Graduate School of Agriculture Science, Yamagata University, Tsuruoka, Japan
511	34659	Quantification of Micro- and Nanoplastics in Agricultural Soil and Application in Japan	Nozomi Kagami Hokkaido University
512	35157	Improving Soil Thermal Conductivity Models by Unifying Dry and Saturated Thermal Conductivity Estimates	Xin Zhao Inner Mongolia Agricultural University
513	34651	The Effect of Soil Microorganisms on Organic Carbon Sequestration in Saline-Alkali Soils of the Hetao Irrigation District under Exogenous Organic Matter Addition	Fei Chang Inner Mongolia Agricultural University

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514	33218	Towards a low-carbon and climate-resilient Mediterranean agriculture: the integration of Conservation Agriculture and 4R Nutrient Stewardship in herbaceous and woody crops	Jesús Sevillano-Caño University of Córdoba
515	320B24	Soil Bacterial Diversity at the Molecular Level: Origins, Consequences, and Implications	Shuchang Zhao Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
516	33125	Multi-Element Synergy-Driven Transfer Learning Model for Enhancing the Generality of Soil Heavy Metal Concentration Estimating	Chang Meng Inner Mongolia Agricultural University
517	32168	Long-Term Land-Use Change in a Mediterranean Agroforestry System: Assessing and Restoring Soil Health in Apple Orchards of Pelion, Greece	Dr. Eleftherios Evangelou Institute of Industrial and Forage Crops Hellenic Agricultural ORganization Dimitra
518	35150	Long-term Combined Organic and Inorganic Fertilizers Increases Maize Yield in Upland Acidic Red Soils by Enhancing soil chemical properties and aggregate characteristics	Xinmei Zhao Agricultural Environment and Resources Institute
519	35348	Multidimensional approach to anthropogenic markers -evidence from urban soils in Krakow (SE Poland)	Kinga Jarosz Jagiellonian University in Krakow (Faculty of Geography and Geology, Krakow, Poland)
520	31976	Bacillus megaterium (S2-4a1) Improves Compost Biofertilizers by Solubilizing Potassium from Feldspar	Yupa Chromkaew Chiang Mai University
521	33361	Global Patterns of Coarse Woody Debris Decomposition Rates	Yuxin Zhang Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences
522	34376	Dynamics of Native Low Molecular Weight Organic Substances (LMWOS) and Their Relationship to Soil Quality Indices in Gray Lowland Soil	Nobchulee Nuanaon Soil and plant Multi-Dynamics Research Unit, Fukushima Institute for Research, Education and Innovation(F-REI)
523	33272	Time-scale dependent responses of microbial carbon use efficiency to warming in alpine soils on the Qinghai-Tibetan Plateau	Yike Wang Chinese Academy of Sciences Key Laboratory of Ecosystem Network Observation and Modelling
524	34625	Incorporating cover crop and rice straw promoted inorganic phosphorus mobilization via rhizobacterial-secreted oxalic and malic acids	Qiang Zhu Huazhong Agricultural University
525	33203	The Stability of Softwood Biochars and Their Impact on Nitrogen Retention in Contrasting Boreal Soils Over 14 Years	Zhouyang Tian University of Helsinki

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526	32039	Rhizobial Isolate YL 14 Biofertilizer Substitutes for Urea Fertilizer and Improves Yardlong Bean Growth and Nutrient Content	Yupa Chromkaew Chiang Mai University
527	33610	Soil Microbial Biomass and Community Response to Different Pesticides Under Greenhouse Conditions	GUMISIRIYA COSTA UNIVERSITY OF DEBRECEN
528	31843	Climate Variability: Bridging Time Scales in Soil Formation Analysis	Sofiia Zhmyro Faculty of Geography and Geoinformation Technology, Higher School of Economics, Moscow, Russia
529	35140	Balanced NPK Nutrition via TNAU Water Soluble Fertilizer (19:19:19) for Higher Yield and Nutrient Efficiency in Cotton	M R BACKIYAVATHY Tamil Nadu Agricultural University, Coimbatore, India
530	33614	Effects of phosphogypsum on heavy metal mobility and nutrient dynamics in Solonetz soil under spring wheat	Evelin Kármen Juhász University of Debrecen
531	34796	Synergistic Remediation of Mixed Chlorinated Hydrocarbon Contamination by Sulfidated Nanoscale Zero-Valent Iron Coupled with Dehalococcoides mccartyi	Yutong Zhu College of Environment, Zhejiang University of Technology
532	34809	From Antagonism to Synergy: Aquifer Media Regulate the Coupled Degradation of Trichloroethylene by Nanoscale Zero-Valent Iron and Reductive Dechlorinating Bacteria	Yujie Fan Zhejiang University of Technology
533	32421	Harnessing soil pore functionality for enhanced nitrogen dynamics understanding and fertilizer management in pastures	John Clunes Universidad Austral de Chile
534	33332	Evaluation of nitrogen mineralization of paste fertilizer in Japanese paddy soils	MOHAMED Sayid Ali Yusuf Yamagata University
535	34420	The Water Table Crux for Peatland Recovery	Haojie Liu University of Rostock
536	34043	Soil vertical gradients shape soil respiration but not its temperature sensitivity	Ting Sun Zhejiang University
537	35099	Effect of straw incorporation on the formation of roots-surface iron plaque in rice and soil cadmium availability	Jing Mu Anhui Agricultural University

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538	33625	Supporting environmental sustainability by increasing soil carbon sink through biowaste recycling and remote sensing integrated with machine learning	Cho-Yin Wu Tunghai University
539	35033	Urban soils mulching: temperature and moisture regulation in urban soils under different substrates	Makar Silaev Faculty of Soil Science, Lomonosov Moscow State University, Moscow, Russia
540	33270	Crystallinity–solubility relationship of phytoliths derived from different gramineous plants: validation using X-ray diffraction analysis	AKIHITO FUKUOKA Laboratory of Soil Science, Graduate School of Life and Environmental Sciences, Kyoto Prefectural University
541	34345	A New Nonlinear Method for Simulating Nitrogen Pollutant Transport in Farmland	Yuan Zhao Northeast Normal University
542	320B23	Long-term Agricultural Management Decouples Microbial Resource Acquisition from Carbon Metabolism under Short-term Resource Pulses	Zeyu Cheng Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
543	32546	Long-Term Effects of Repeated Organic Amendment Applications on Cadmium Bioavailability: Insights from a Five-Year Pot Experiment	Sibylle Comeliau Gembloux Agro-Bio Tech (University of Liège)
544	34117	Trophic cascades in the rhizosphere micro-food web under different P regimes regulate soil P dynamics and maize growth	Ming Lang Southwest University
545	33081	Evaluating the Effectiveness of Conservation Tillage in the Black Soil Region of Northeast China Based on the Apparent Characteristics of Crop-Residue-Soil	Jing Wang institute of geographic sciences and natural rescources research
546	319B44	Nature-based Solutions for Transforming Smallholder Agriculture in Highland Areas of Northern Thailand	Nattaporn Prakongkep Land Development Department
547	31894	Identifying spatiotemporal patterns of hillslope subsurface flow in an alpine critical zone on the Qinghai–Tibetan Plateau based on three-year, high-resolution field observations	GUANGRONG HU Faculty of Geographical Science, Beijing Normal University
548	34488	Influence of grazing on soil structure of the Patagonian wetlands meadows (Vegas)	Dorota Dec Austral University of Chile

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549	34841	Biochar Utilization Strategies Based on Feedstock and Application Frequency: Effects of Wood and Chicken Manure Biochars on Crop Productivity	Ju Young Cho Gyeongsang National University
550	32087	Bioaugmentation effects of three ecological earthworm species on phytoextraction of Sedum plumbizincicola in Cd and Zn contaminated soils of South China	Menghao Zhang South China Agricultural University, Guangzhou, China
551	34890	Modified biochar enhances the growth of pepper and reduces the accumulation of cadmium in soil contaminated with cadmium.	Hengji Qin Hohai University
552	35087	The contribution of N derived from deep-rooting cover crop mixture to soil N dynamics and subsequent maize nutrition	Juanjuan Ai Institute of Agricultural Resources and Environment, Guangdong Academy of Agricultural Sciences,
553	33986	Interactive dynamics between rhizosphere bacterial and viral communities facilitate soybean fitness to cadmium stress revealed by time-series metagenomics	Zhongyi CHENG Zhejiang University
554	33743	Comprehensive soil health assessment for Cd-contaminated farmland: From the perspective of safe utilization practice	Zhongyi CHENG Zhejiang University
555	36474	Synergistic Remediation of Cadmium-Contaminated Soil and Antibiotic Resistance Gene Mitigation by Anaerobic Soil Biological Treatment	Jianxiao Song Northwestern Polytechnical University
556	32482	Methodological Proposal for the Identification and Prioritization of Degraded Areas in the Implementation of Environmental Restoration Public Policies in Minas Gerais, Brazil	ADRIANA MONTEIRO DA COSTA Federal University of Minas Gerais
557	35239	Assessing quality gains from physically supervised harmonic fitting for apparent soil thermal diffusivity estimation.	Martín Francia Faculty of Agronomy, Universidad de la República, Montevideo , Uruguay
558	35006	Contrasting water regimes reshape denitrification-induced organic nitrogen mineralization under anaerobic conditions	Bing Han State Key Laboratory of Black Soils Conservation and Utilization, Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences, Changchun, Jilin, China
559	35206	Differentiating parent materials using the soil thermal gradient between 5 and 10 cm at national scale, Uruguay	Martín Francia Faculty of Agronomy, Universidad de la República, Montevideo , Uruguay.

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560	34640	Pore-Scale Simulation of Heat–Water Coupling during Soil Thawing under Contrasting Tillage Systems	Jiayun Wang China Agricultural University
561	33191	The Need for Standardized Protocol for Soil Organic Matter Prediction using Vis-NIR Spectroscopy-A Meta-Analysis	Anshu Beri University of Guelph
562	33731	Mixing rice straw with various N sources in a sandy soil: organic C stabilization and priming effect	Wimonsiri Pingthaisong Suranaree University of Technology, Thailand
563	36118	Field-scale prediction of black soil thickness based on wavelet decomposed components and multi-model validation	Lei Qiao State Key Laboratory of Soil and Sustainable Agriculture Institute of Soil Science Chinese Academy of Sciences
564	34842	Optimizing Water-saving Irrigation Strategies: Integrative Assessment of Soil Quality, Crop Yield, Greenhouse Gas Emissions, and Microbial Diversity in Rice Paddies	Chia-Chia Lin National Chung Hsing University
565	36442	Earthworm burrows enhanced rice root growth under a no-tillage rice-rapeseed rotation system	unknow Hunan Cultivated Land and Agricultural Eco-Environment Institute
566	32478	Sensitivity of soil organic matter priming to warming depends on diurnal temperature cycle	Qiong Xiao Institute of Agricultural Resources and Regional Planning, CAAS
567	33604	Digital Soil Mapping of Soil Organic Matter in Well-Facilitated Farmland Using Multi-source Covariates and Feature Selection	Yi Zhao Zhejiang University
568	36578	Inorganic Phosphorus Fractionation and Acidity in Red Soil Affected by Activated Phosphate Rock Powder	Xianmei Zhang State Key Laboratory of Efficient Utilization of Arable Land in China, Key Laboratory of Arable Land Quality Monitoring and Evaluation, Ministry of Agriculture and Rural Affairs, The Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences, Beijing, China
569	34840	Rice Ratoon as a Novel Carbon Source and the Growth-Regulating Factors in Mono-Rice Paddies	Gayeon Jang Sunchon National University
570	36433	Potassium Management Strategies for Soybean–Corn Rotation Under No Tillage in a Brazilian Oxisol	Paulo Cesar Teixeira Embrapa

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571	33235	Soil Art in Action: Transdisciplinary Pedagogy and Community Practice in the Healing Garden Project	Lipeng Jin Sichuan Fine Art Institute
572	33497	Differences in soil organic carbon and its stability between topsoil and subsoil under organic material amendments	Hu Shengchao Northwest A&F University
573	34730	Feasibility of Pot-Grown Seedling Transplanting as an Alternative Strategy to Mitigate CH4 Emissions and Enhance Rice Productivity in a Paddy Field	Mingyeong Lee Sunchon National University
574	34734	Nitrate Reduction Influences the Structure and Function of Dehalogenating Community	Jingjing Wang nstitute of Applied Ecology Chinese Academy of Sciences
575	34761	Effects of organic amendments on soil carbon stocks and their distribution between particle and mineral-associated organic carbons in a red pepper field	Sohee Yoon Sunchon National University
576	33831	Integrated Practice and Model Construction Based on BIOACTIVE FARMING PATHWAYS	Miaoxian Li Guangdong Jieshi Agricultural Technology Co., Ltd.
577	33143	Phosphogypsum Effects on Soil Microbial Communities Revealed by PLFA Analysis in Arenosol and Meadow Chernosem Soil	Andrea Balla Kovacs University of Debrecen, Hungary
578	34275	Partial organic substitution improves rice yield in high-fertility paddy soils by increasing MBN and regulating nitrogen supply	Lijia Chen CENTRAL CHINA NORMAL UNIVERSITY
579	32771	Biodegradable Microplastics Alter Soil N2O Emissions and Nitrogen Cycling under Contrasting Nitrogen Fertilization	Yuhan Yin Nanjing University of Information Science & Technology
580	35110	Enhancing soil-wheat resilience with biochar-based microbial fertilizer application under deficit irrigation	Xu Yang Nanjing Forestry University
581	34660	Symphony of Biological Vitality	Miaoxian Li Guangdong Jieshi Agricultural Technology Co., Ltd.
582	33725	The impact of microbial-mediated crop residues and their humification products on soil organic matter transformation	Yifeng Zhang Jilin Agricultural University
583	35311	Microbial mechanisms underlying soil organic carbon dynamics during vegetation restoration in alpine sandy region	Jinlu Guo Qinghai Normal University

584	36313	Characteristics of Aggregates in Dark Brown Soils and Their Response to Nitrogen and Phosphorus at Different Levels	Shuxiang Zhang Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences/State Key Laboratory of Efficient Utilization of Arid and Semi-arid Arable Land in Northern China
585	35258	How do historical land uses shape soil carbon and microbial communities Evidence from alpine sandy region	Jinlu Guo Qinghai Normal University
586	34861	Integrating Hydrological Modeling and Explainable Machine Learning to Reveal the Key Drivers of Salinization of Soda Saline-Alkali Soils	Peng Guo China agricultural university
587	35030	Contents and controls of phytolith and phytolith-occluded carbon (PhytOC) in Mollisols of Northeast China	zhouyuan Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences
588	36468	Screening and Principles of Efficient Peanut Nutrient Utilization of Germplasm Resources	ZiyanZhao State Key Laboratory of Soil and Sustainable Agriculture, Institute of Soil Science, Chinese Academy of Sciences
589	35648	Soil Organic Carbon Fraction Dynamics Across Paddy Soil Profiles: A Critical Role of Parent Material	Chu Zheng Sichuan Agricultural University
590	36379	A physics-guided embedding framework for estimating water content and bulk density in black soil using TDR	Jienan Xu Institute of Soil Science, Chinese Academy of Sciences
591	36551	Quantitative Monitoring and Inversion of Soil Moisture Content Based on Ground Penetrating Radar: Progress, Methods, and Prospects	Ping WANG Qufu Normal University
592	33023	Impact of dry-wet cycles on nitrogen and phosphorus mineralization in soils amended with cattle manure	Theresa Adesanya University of Northern British Columbia, Canada
593	34767	The removal mechanism of Pb2+ from wastewater by phosphorus-modified biochar	Guanjie Jiang Jiangxi Agricultural University
594	33095	Elucidation of Chemical Structure of Soil Clay Minerals Using Electron Probe Microanalyzer	Satoshi Ushijima Kyushu University
595	31825	Weighted ensembles with spatial residual correction for improved soil pH mapping in tropical croplands	Zhang Meixuan Hainan University

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596	34766	Manure addition enhances the formation and accrual of soil organic carbon from straw through regulating microbial metabolic in paddy soils	Xiaobin Guo Institute of Subtropical Agriculture, Chinese Academy of Sciences
597	35072	Assessment of soil temperature dynamics in different soil landscapes in western Greenland	Marcio R Francelino Universidade Federal de Viçosa
598	35264	Digital mapping of Solonetz within forest-steppe landscapes of the Oka-Don Lowland	Daniil Kornilov Lomonosov Moscow State University
599	35468	The Final Stage Of Loess Accumulation In The Glacial Region Of The Last Glaciation And Its Reflection In The Properties Of Modern Soils: A Case Study Of Northwestern Russia	Leontev Aleksandr [1] Saint-Petersburg State University (SPbU)
600	34862	Liming reshapes the balance between mineral-associated and particulate organic carbon through a mineral-microbial interactions in paddy soils	Hanchen Wu aInstitute of Subtropical Agriculture, Chinese Academy of Sciences
601	36187	Decadal Spatiotemporal Dynamics of Boreal Soil Chemistry in Response to Industrial Atmospheric Loading	Theresa Adesanya University of Northern British Columbia
602	34505	The evolution of assimilable elements in the soil, and in the Sorrento Lemon PGI during growth	Simona Vingiani University of Naples Federico II
603	34208	CO2 emission following total vegetation removal: a pilot study	Johann Thorsson Land and forest Iceland
604	32019	Urbanization Affects Soil Microbiome Profile Distribution in the Russian Arctic Region	Korneykova Maria RUDN University
605	33630	Iceland's degradation history is taking a hopeful turn through revegetation and ecosystem monitoring	Solveig Sanchez Land and Forest, Iceland
606	36264	Second-year effects of basalt application on maize growth and soil carbon sequestration under field conditions.	Itsuki Ogawa Graduate school of Agriculture, Hokkaido University
607	34499	Assessment of the Stabilizing Effect of Compost and Phosphogypsum on the Metabolism of Bacillus subtilis and Pseudomonas putida in Lead- and Zinc-Contaminated Sod-Podzolic Soil	Nikitenko Anton Mikhailovich Department of Ecology, Russian State Agrarian University - Moscow Timiryazev Agricultural Academy (RSAU - MTAA)
608	36450	Community-based research and action for sustainable land use in the Ethiopian Rift Valley	Paul Hallett University of Aberdeen

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609	32589	Managements impact on Color and Organic Carbon in Great Plain Soils of the United States	Isaac Nelson Kansas State University
610	34474	Soil Physical and Chemical Responses Along a Pasture-to-Forest Succession in the Italian Alps	Valeria Cesarini University of Turin
611	34284	Biochar and microorganism-assisted remediation of brownfields	Agnieszka Medyńska-Juraszek Institute of Soil Science, Plant Nutrition and Environmental Sciences, Wroclaw University of Environmental and Life Sciences
612	35373	Effect of veterinary antibiotics on test plants and enzymes activity and microbiological respiration of sod-podzolic soil	Serikov Konstantin Moscow State University
613	35557	The permanence of carbon sequestration in agricultural soil – what do we (not) know	Chantal Hendriks Wageningen University & Research
614	31923	Short-term effects of molasse-derived digestates from one- and two-stage anaerobic digestion on wheat crop and chosen soil properties	Jerzy Jonczak Warsaw University of Life Sciences
615	34406	Matric-potential-dependent partitioning between structural and matrix controls on soil water retention under long-term tillage management	Yuhong Zhou University of Guelph
616	34326	Does particle size of digestate-derived biochar affect phosphorus losses and fertilizer value? Evidence from a lysimeter study in a temperate soil.	Oliver Lindunda Daka Aarhus University
617	34948	Aggregate-Size-Specific Carbon and Nitrogen Responses to Reduced and Deep Tillage in Japanese Andosols	Ulendo Taizya University of Tsukuba
618	34270	Indicators of the paleoecological situation in the Volga region soils	Radislava Reshetnikova Lomonosov Moscow State University
619	34513	Local microbial yield-associating signatures extend globally to plant growth differences	Berenice Di Biase Soilytix GmbH
620	31816	Deciphering Soils through the Power of Games	Alma Barajas-Alcalá National Autonomous University of Mexico
621	34644	Characterizing Temperature-Dependent Dissipation Kinetics of Co-Mingled Contaminated Soils	Theresa Adesanya University of Northern British Columbia

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622	34512	SOCBIO-MAP: Soil Organic Carbon and BIOdiversity Mapping and Analytics for Projects	Berenice Di Biase Soilytix GmbH
623	34542	Impacts of model root exudates (Pectin and Oxalic Acid) on multiscale soil structural, hydraulic, and surface properties	Hui Ao university of aberdeen
624	32848	Utilization of Chemically Recycled Bio-based Plastic as Nitrogen Fertilizer in Paddy Soil: A Pot Culture Study for Brassica rapa	Mizuhiko Nishida Tohoku University
625	33867	Geospatial Index of Acid Mine Drainage Impact on Soils (IIMSDAM)	Joseph Tadeo Almazan Valencia Universidad Nacional Autónoma de México
626	32852	Rainfall-induced hot moments of N_2O emissions in sandy agricultural soils managed with winter cover crops	Sapana Parajuli Clemson University
627	32089	Quantifying Soil Organic Carbon Deficits with Dynamic Baselines and Attainable Scenarios Modeled from Legacy Dat	Anil Somenahally Texas A7m AgriLife Research
628	36397	Impact of Integrated Agricultural Systems on Soil CO_2 Efflux in the Cerrado Biome	Leidivan Almeida Frazão Federal University of Minas Gerais
629	35182	Response Patterns of Microbial Communities to Cd Stress in a Wastewater-Irrigated Farmland	Shushen Yang Hebei Agricultural University
630	35510	Drivers and Spatial Variability of CO_2 Efflux in Agrosilvopastoral System and Native Vegetation in the Brazilian Cerrado	Demerson Luiz de Almeida Barbosa Federal University of Jequitinhonha and Mucuri Valleys
631	319B62	Spatiotemporal Pattern and Mitigation Potential of Carbon Emissions from Ex-Situ Thermal Desorption for Contaminated Soil in China	LIU ZHAOYUE Tongji university
632	34455	Soil Carbon Trend Index (SCTI): A Biochemical Tool for Predicting Carbon Dynamics in Agricultural Soils	Guilherme M. Chaer Embrapa
633	319B39	Wintertime Snow Manipulation Effects on Forest Soil Aggregate Stability in Two Contrasting Forest–Soil Systems in Wisconsin, USA.	Daniel Igirimbabazi University of Wisconsin-Madison
634	31609	Geochemical Fractions of Pb and Ni in Orchard Soils and Ecological Risk Assessment Using Pollution Indices	Enise Sukuşu Siirt University

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635	34274	Seven-year trial: Biochar enhances yield and NUE in high-fertility paddy but the benefits are no longer significant after six years	Qin Liao Central China Normal University
636	319B61	Genotypic Variability in Bioaccumulation and Dietary Risks of PFAS across 30 Wheat Cultivars: A field Assessment	JunYing Wang 1 Tongji University, Shanghai, China. 2 Chinese Research Academy of Environmental Sciences, Beijing, China.
637	34457	Organic P Mineralization in Agricultural Soils: Process Dynamics and Microbial Drivers	Jinzhen Zhan Sun Yat-sen University
638	36179	Seven-year addition of labile organic carbon and phosphorus enhances soil phosphorus fertility and organic carbon accumulation in calcareous soil	Qin xiaoran Xinjiang Agricultural University
639	34701	Iron Speciation as an Interpretive Framework for Pedochemical Variability in CO_2-Degassing Mofette Ecosystems	Christian Dave Alonzo University of Agriculture in Krakow
640	32570	Abiotic Methane Production Driven by Soil Reactive Oxygen Species	Ziyan Liu Xi'anJiaotong-Liverpool University","Liverpool University
641	34949	Variation in Nutrient Requirements of Rice (Oryza sativa L.) Under Elevated CO2 and Temperature	Seung Ju Shin Gyeongsang National University
642	33334	Effects of crop rotation and organic amendments on crop productivity, soil chemical properties, and soil organic carbon accumulation in greenhouse vegetable systems	Bomi KIM Hankyong National University, Rep. of Korea
643	36196	Interactions between pollutants, antibiotic resistance and pathogens during transition from untreated to treated wastewater irrigation: a multiscale approach	Christina Siebe Universidad Nacional Autónoma de México
644	36540	Organic and inorganic carbon losses in straw amended saline and sodic soils	Yuyi Li Institute of Agricultural Resources and Regional Planning, Chinese Academy of Agricultural Sciences
645	34509	Sulfur Geochemistry of a Sulfuric Wetland in Ostrobothnia, Western Finland	Anton Boman Geological Survey of Finland

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646	34863	Title Effect of Manganese Foliar Application in Combination withBacillus australimaris KU32 on the Stalk Elongation Growth Stage of Sugarcane Variety Khon Kaen 3 Planted in Calcareous Soil	Aunthicha Phommuangkhuk, Bang-on Ubon, Kanokkorn Sinma, Suphachai Amkha and Nongphat Chaichana Department of Soil Science, Faculty of Agriculture at Kamphaeng Saen, Kasetsart University, Kamphaeng Saen Campus, Nakhon Pathom, Thailand
647	35315	Bio-Organo Silicon Granules: A Strategy for Salinity Tolerance in Tomato	Selvi Duraisamy Tamil Nadu Agricultural University
648	32547	Managing Cadmium Uptake in Vegetables with Repeated Applications of Amendments: Lessons from a Multi-year Field Experiment	Sibylle Comeliau Gembloux Agro-Bio Tech (University of Liège)
649	33453	Higher Efficiency of Nano-Sized Lime for Improved Limestone Conservation	Saw Chin Chien University Putra Malaysia
650	32621	Functional Resilience and Network Reorganization: How Plant-Associated Microbiome Maintain Ecosystem Services Under Antibiotic Pressure	Karabo Tsholo Unit for Environmental Sciences and Management, North-West University, Potchefstroom, South Africa
651	32783	Denitrifier community responses to irrigation and straw management in subtropical paddy soils	Pei-Ju Lu National Taiwan University
652	33176	Integrating Multi-Scale Soil Evaluation and Ecosystem Service Assessment for Sustainable Land Use Planning with Targeted Agri-Environmental Measures	Christopher Marples Leibniz Centre for Agricultural Landscape Research (ZALF)
653	32418	Biochar-Induced Changes on Soil Nutrient Retention and Saturated Hydraulic Conductivity of Sandy Loam Soil in Lahar-laden Area of Zambales, Philippines.	Jacob B. Labita Soil and Water Resources Research Division, Bureau of Soils and Water Management
654	321B02	Preliminary assessment of humic substances from chicken manure hydrochar as drivers of soil microbial activity	Francisco Jesús Moreno Racero Instituto de la Grasa – CSIC
655	35319	Fungal consortium assisted composting for rapid stabilization of poultry litter	Thiyageshwari Subramanium Tamil Nadu Agricultural University
656	32741	Mechanism of Surface Runoff Erosion Transport and Its Verification and Application	GAO JIANEN Northwest A&F University

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657	33136	Fungal biodiversityassociated to alpine peatlands in northern Italy	Claudio ZACCONE University of Verona, ITALY
658	34808	Iron-mediated mechanisms of soil organic carbon stabilization in paddy soils under warming and altered flooding	Claudio ZACCONE University of Verona, ITALY
659	35345	Assessing pedotransfer functions for bulk density to improve predictions of soil carbon stocks in Retisols (Moscow region, boreal zone)	Olga Manakova Faculty of Soil Science, Lomonosov Moscow State University
660	34691	Integrating Soil Properties and Management into Data-Driven Modeling of Soil CO_2 Efflux in Urban Green Roofs	Cho Junyoung Korea Institute of Civil Engineering and Building Technology
661	32563	Sustainability of using salt affected lands in saline agriculture	Leila Jahanbazi Aarhus University
662	34377	Improved recommendations for phosphate fertilizer application to promote soil health and reduce carbon emissions	Chin-Hua MA World Vegetable Center
663	34121	Short term impact of biochar on soil total carbon, total nitrogen, δ13C and δ15N in two vineyards in Southeast Queensland of subtropical Australia	Kate Kingston Griffith University
664	32972	Risks of wheat yields reduction under future climate extremes	Guanmo Li Chinese Academy of Agricultural Sciences
665	35370	The impact of veterinary antibiotics on the functional diversity of microorganisms in agro-sod-podzolic soil	Andrey Batakov Lomonosov Moscow State University
666	36593	Phosphorus fractions in selected soil types located on the desert and steppe zones of Mongolia	Undrakh-Od Baatar National University of Mongolia
667	34941	Characterization of Small Microplastics in Japanese Agricultural Soils and Their Effects on Soil Aggregate Structure	Maki Asano University of Tsukuba
668	320B66	Comparative evaluation of dispersion pretreatments for tailoring iron-based MOF structure and controlled-release performance in fertilizers	Lianjie Wan Institute of Soil Science Chinese Academy of Sciences
669	34416	Urbanization Alters Wetland Sulfur Cycling via Microbial Restructuring, Not Diversity Loss	ZHONG PING Hainan University

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670	35922	Soil-Root Shear Strength of Gullies Covered by Different Vegetation Types on the Loess Plateau of China	Zhu Ruipeng Beijing Normal University
671	33775	Phytomining of rare earth elements from phosphogypsum waste heaps using silver birch (Betula pendula Roth)	Beata Rustowska Warsaw University of Life Sciences – SGGW
672	34145	Effects of gypsum application on rice growth and yield in paddy soils with varying heavy metal content	Toru HAMAMOTO Tohoku University
673	34930	Species-Specific Effects of Earthworm on Soil Modification Functions Across an Ecosystem Development Gradient: Evidence from Miyakejima and Mikurajima, Japan	Ran Sesoko University of Tsukuba
674	34532	Medieval Urban Cultural Layers in Contrasting Arid and Humid Waterlogged Environments: Morphological and Chemical Properties, and Genesis	Yulia Karpova Institute of Geography, Russian Academy of Sciences
675	33947	Pedogenic Response to Holocene climatic fluctuations in the Caucasian foothills (Dagestan, Russia)	Fatima Kurbanova Institute of Geography, Russian Academy of Sciences, Moscow, Russia
676	32946	Can Perennials Cut Nitrous Oxide Emissions? Insights from Manitoba Cropping Systems	Xiaopeng Gao University of Manitoba
677	32123	Earthworms feeding on leaf litter reduced litter-derived particulate organic carbon without increasing mineral-associated organic carbon over 50 days in a field experiment	Doy Kim Korea University
678	34936	Temporal clockof BNI in wheat	Xiaoping Fan University of Aberdeen
679	35036	Characteristics, Driving Mechanisms, and Machine Learning Modeling of Nitrogen Runoff Losses from Chinese Rice Cropping Systems	Yi Wang Ludong university
680	320B65	Afforestation can lower microbial diversity and functionality in deep soil layers in a semiarid region	Weibo Kong Northwest A&F University
681	32363	Diatomaceous bio-silicon as a sustainable alternative to mineral silicon fertilizers: Impacts on rice yield, soilfertility, and heavy metal dynamics	Qin Zhang Jiangxi Agricultural University

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682	34674	Effects of different irrigation timings on survival and early growth of Haloxylon ammodendron seedlings in southern Tajikistan	Nasrulloi Avaz Korea University
683	35545	Non-monotonic Reproductive Toxicity of F-53B in Earthworm: Environmental Relevance from Northwest China Industrial Soils	Zeliang Liu Xi'an University of Architecture and Technology
684	32275	Threshold sand content of sand-clay mixtures is affected by clay mineralogy and compaction effort	Evan Mascitti University of Massachusetts
685	34222	Biochar–microbial interactions as drivers of soil carbon sequestration: from heterotrophic priming to autotrophic CO_2 fixation	Xiaomin Zhu Aarhus University
686	35643	Urbanization Promotes Topsoil Black Carbon Accumulation: A Meta-analysis	Wang Min Zhongkai University of Agriculture and Engineering
687	31855	Unraveling soil microbial guilds driving phosphorus, nitrogen, and carbon transformations through multi-omics approaches	Felipe Bastida CSIC
688	32556	Auxotrophic Bacteria in Maize Rhizosphere and Bulk Soil: Insights into Microbial Dependencies and Nutrient-Driven Selection	Gabriel de Castro Theodoro Universidade de São Paulo (USP/ESALQ)
689	35021	Abiotic Dephosphorylation of Nucleotides by MnO2	Xiao Yu Nanjing University
690	36412	Effects of Two Plant Growth-Promoting Bacteria on Salt Tolerance of Soybean in Coastal Saline Soil and the Mechanisms	Gaidi Ren Institute of Agricultural Resources and Environment, Jiangsu Academy of Agricultural Sciences
691	35937	Calibration and Validation of a Site-Specific Nutrient Expert Tool for Sorghum in the Sudano-Sahelian Region of Nigeria	Jibrin Mohammed Jibrin Bayero University, Kano
692	34425	Dung applied anthelmintic drug Moxidectin alters free-living soil nematode communities	Janina Milkereit Department of Soil Science, Kiel University
693	35209	Earthworm Responses to Veterinary Antibiotic Contamination in Soil and their Role in Mitigating Crop Toxicity	Young-Nam Kim Kyungpook National University
694	35221	Phytoremediation Potential of Native Garden Plants in Urban Soil	Young-Nam Kim Kyungpook National University

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695	35887	Beyond Methane: Reassessing the Role of Rice Paddies in Global Warming	Pil Joo Kim Gyeongsang National University
696	33616	A systematic analysis and review of soil organic carbon stocks in urban greenspaces	Yang Guo Hangzhou City University
697	32316	Assessing rhizosphere and root traits of maize varieties under drought in integrated greenhouse and field experiments	Martin Wiesmeier Bavarian State Research Center for Agriculture
698	32803	Vegetable Expansion Drives County-Scale Nitrogen Surplus and Nitrate Leaching Risk on the Loess Plateau	Mingxia Yang Northwest A&F University
699	32805	Dynamics of soil salinization and its combined effect with nutrients on the microbial community in solar greenhouses	Xiaofang Deng Northwest A&F University
700	31812	Anthropogenic activities and hydrologic environment of Danjiangkou Reservoir regulate soil microplastics in the water level fluctuation zone	zhaoyaun Huazhong Agricultural University
701	34267	Effects of green manure returning and tillage practices on soil organic carbon fractions and runoff-induced erosion in sloping red soils	HUAHUI LI Yunnan Agricultural University, Kunming , China
702	34318	Microbially Constructed Carbon–Mineral–Structural Interfaces: Revealing a Novel Perspective on Soil Texture–Mediated Organic Carbon Temperature Sensitivity	HUAHUILI Yunnan Agricultural University, Kunming , China
703	34255	Estimating near-surface soil thermal property values using a semi-analytical heat-pulse model with a Robin boundary condition	Tianyue Zhao China Agricultural University
704	34053	Green recycling food waste management – a comparative case study in China	Liu Yu College of Land Science and Technology, China Agricultural University
705	32711	Environmental fate and effects of mulch films on agricultural soil: A systematic review from application to residual impact	Ziyi Shao Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
706	34393	Impact of MP-induced changes in earthworm feeding behavior on soil carbon mineralization	Kanghua Chen Northwest A&F University
707	34971	Monitoring Soil Respiration in Street-level Green Infrastructure: A Preliminary Field Study	Kim Hyomin Korea Institute of Civil Engineering and Building Technology

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708	33732	Effects of sustainable cropping systems on soil fauna and microbial biomass and aggregate structure	Kyota Watanabe Tohoku University, Japan
709	32870	Effect of pH Gradient on Microbial Respiration using an Artificial Soil Systems	YUTO YAMAMOTO Graduate School of Agricultural Science, Tohoku University
710	33533	Fluorinated Pesticides Pose Emerging Global Environmental Risks	Zihao Sun China Agricultural University
711	36126	Hydraulic Properties of Artificial Soil Constructed from Agricultural and Forestry Waste	Yarun Wang Institute of Plant Nutrition, Resources and Environment, Beijing Academy of Agriculture and Forestry Sciences
712	35329	CSDMS BMI model coupling for Soil Digital Twins	Danila Bardashov V.V. Dokuchaev Soil Science Institute
713	35360	Spatially-Explicit Uncertainty and Feature Attribution in Landscape-Scale Topsoil Carbon Mapping in Forest-Steppe	Danila Bardashov V.V. Dokuchaev Soil Science Institute
714	31821	Nutrient Management Effects on Sustainable Yield, Soil Fertility, and Carbon Stock in a Cauliflower–Capsicum Cropping Sequence of the Northwestern Himalayan Region	Archana Sharma Department of Soil Science and Water Management
715	34304	Land use change and management strategies promoting soil organic carbon sequestration in LAC countries	Mariana Rosas-Alenicov INIA-Uruguay
716	31971	Sustainable Management of Saline and Sodic Black Soils in the Lowlands of Eastern Georgia	Giorgi Ghambashidze Agricultural University of Georgia
717	33084	Impact of Land Use and Windbreak Establishment on Soil Carbon Pools in Dryland Agroecosystems	Giorgi Ghambashidze Scientific-Research Centre of Agriculture
718	32167	Biotechnological strategies to enhance phosphorus use efficiency in Soybean - Maize cropping systems	Mikaella Meira Monteiro University of São Paulo
719	34609	Testing the scaling effects and mechanisms of N-induced soil nematode diversity loss in natural grassland	Liheng Zhang Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
720	34331	SHORT-TERM SOIL FERTILITY AND CROP YIELD RESPONSES TO MUNICIPAL ORGANIC WASTE	Stanko Milić Institute of Field and Vegetable Crops, Novi Sad, Serbia
721	35910	Assessing Nutrient Status of Selected Lowland Rice Soils in Siniloan, Laguna, Philippines	Nicola Louise Timbas University of the Philippines Los Baños

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722	33395	Identification of Bioplastic-associated Bacteria with Potential Degradative Activity in an Agricultural Soil System	Zeyu Zhu Department of Food Science and Technology, University of California, Davis, USA
723	34922	NBPT + DMPP simultaneously reduce NH3 volatilisation and N2O emissions in commercial irrigated spinach production	Brendon Costello University of Melbourne
724	34125	Exposure to cypermethrin pesticide disturbs the microbiome and disseminates antibiotic resistance genes in soil and the gut of Enchytraeus crypticus	Ming-Kang Jin Research Center for Eco-Environmental Sciences
725	31839	A Decade of Soil Security: From Concept to Global Action	Alex McBratney The University of Sydney; Sydney Institute of Agriculture; Aroura Global Soil Security Think Tank
726	34553	Optimizing Soil Fertilization Processes for Improving 4R Nutrient Stewardship	Sadia Mahajabin University of Guelph
727	36257	Remediation of oxytetracycline-contaminatedcalcareous soil by a novel ZincoxideSchwertmannite composite interfacebehavior and plant synergy	Yingxuan Fan Shanxi Agricultural University
728	32373	Chemical Composition of Soil Organic Carbon and Its Relationship with Soil Properties and Carbon Dynamics in Tropical Soils of Thailand	Phongsakon Tantarawongsa Japan Atomic Energy Agency
729	35655	Dynamics of Soil Carbon and Nitrogen in Check-Dam Sediments: Impacts of Burial Time and Decadal Exposure Following Dam Breaching	Yufei Yao Northwest University
730	320B63	Enhancing wheat drought resilience through organic amendments: integrating soil health improvement and antioxidant defense activation	Sidra Sohail Northwest A&F University
731	34516	The influence of selected factors on the various phosphorus compounds in soils with a bog iron ore horizon	Lidia Oktaba Warsaw University of Life Sciences
732	319B34	Nutrient Management and N_2O Emissions from Agricultural Peatlands in Ireland	Wenxuan Shi Teagasc
733	34817	The overlooked methanogenic N_2-fixation revealed during rice straw incorporation by metatranscriptomics	Feiran Jia Institute of Soil Science, Chinese Academy of Sciences
734	32181	Use of polyhalite as an ameliorant for sodic soils	Tomalika Roy University of Queensland

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735	34236	Soil and Life in Bayinbuluk	Hongtao Jia Xinjiang Agricultural University
736	35310	Effects of carbon-equal straw return on active organic carbon fractions in the black soil plow layer and maize growth	Yan Shi Institute of Applied Ecology, Chinese Academy of Sciences
737	32607	Nitrification-induced acidity controls CO2 emission from soil carbonates in the Loess Plateau of China	Jingjing Tao Northwest A&F University
738	35453	Phosphorus Maximum Sorption Capacity in Soils from Paraná State in Southern Brazil	Oriel Tiago Kölln Universidade Estadual do Norte do Paraná - UENP
739	320B41	Establishming of a National Digital Database and Information System for Agricultural Soils in Mongolia under the AFACI Project	Enkhtuya Bazarradnaa Mongolian University of Life Sciences
740	32434	Coupling of microbial iron and sulfate reduction with organic carbon stabilization in mangrove soil	Heyimo Xia Sun Yat-sen University
741	319B65	Green Surfactant Remediation of Petroleum Hydrocarbon-Contaminated Soil and Bacterial Community Response	Changhao Wu Technical Center, Center Environmental Protection Technology Co., Ltd.
742	319B66	Comparative Study on the Efficiency of Multiphase Extraction Combined with Bioremediation and Thermal Enhanced Coupling Process	Gubai Luo Center International Group Co., Ltd.
743	319B67	More Than Containment: An Innovative Attempt to Solve Groundwater Contamination at Landfills - The Application of a Nation's First Full-Process Technical System Integrating Source, Pathway, and End-of-Pipe Treatment	Ying Chao Center Environmental Technology Co., Ltd.
744	321B03	Multiple environmental stressor networks shape divergent pathways of biodiversity and ecosystem functioning in urban ecosystems.	Mateo González Quero IRNAS - CSIC
745	320B61	Stability mechanisms of organic matter (DOM) in typical soil microaggregates	Jie Xu Safety, Environmental Protection and Supervision Center, PetroChina Southwest Oil and Gas Field Company, Chengdu, 61000, China
746	33222	Alternative Spectroscopic Approaches for Soil Analysis: A Comparative Study	Roberto Barbetti CREA-FL council for agricultural research and economics, Forestry and Wood, Casale Monferrato IT
747	36630	Modelling and Mapping Land Susceptibility to Degradation and Desertification in Europe	Remus PRĂVĂLIE University of Bucharest

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748	34210	Improving Digital Soil Hydraulic Characterization: A Workflow for Enforcing Periodic Boundary Conditions on Tomographic Soil 3D Images	Marina Karsanina Moscow Institute of Physics and Technology (Moscow Region, Russia)
749	35432	Seeing Soil Microstructure with Expansion Microscopy: A New Window into the Physical Structure and Chemical Hotspots	Zheng Chen Xi'an Jiaotong - Liverpool University
750	34876	Nanoscale imaging reveals the kinetics of mineral potassium release and its thermodynamic mechanism	Zhihao Xiong College of Resources and Environment, Huazhong Agricultural University, Key Laboratory of Arable Land Conservation (Middle and Lower Reaches of Yangtze River), Ministry of Agriculture and Rural Affairs, Microelement Research Center, Huazhong Agricultural University
751	36069	Responses of N2O emissions from Leymus chinensis to nitrogen and phosphorus addition	Yujie Shi Northeast Normal University
752	32729	Effectiveness of using the poultry-litter biochar pyrolyzed by different processes on soil available P	Zheyu Chi Ph.D. program of Agriculture Science, College of Agriculture, National Chiayi university
753	34983	Straw Return Exacerbates Soil Acidification in Major Chinese Croplands	Fei Liang Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences
754	33987	Root exudate-microbe synergy drives P activation in mixed Chinese fir species plantation	Yijie Ding Research Institute of Forestry, Chinese Academy of Forestry
755	34611	The Fun Soil Profiles: Characters for the YECS Working Group at WCSS 2026.	Adriana Ribon State University of Goiás
756	34928	Nitrogen cycling in the soil-plant continuum in multispecies swards: insights from a miniature sward experiment	Rifaath Hassan The University of Melbourne
757	32637	Mediation of soil aggregate stability and carbon sequestration by meadow steppe soil microorganisms under long-term nitrogen and phosphorus nutrient additions	He Ye Inner Mongolia Agricultural University
758	34390	Spatial variations of organic matter content in cultivated land topsoil in North China based on updated soil databases	Dongheng Yao Hebei Agricultural University

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759	34787	The Potential of Returning Lignified Sesbania and Sun Hemp to the Soil to Increase Soil Organic Matter in Tropical Farmlands	Chia-Hsing Lee Department of Plant Industry, National Pingtung University of Science and Technology
760	34632	Aluminum and microplastic release from reflective agricultural films disrupt microbial communities and functions in soil	Rui Jiang Soochow University
761	34340	Long-term Field Evidence on Microplastic Generation and Altered Soil Functioning by Biodegradable Film Mulch	Rui Jiang Soochow University
762	330B01	Innovative transformation of China's food production systems and agro-ecological landscapes towards sustainability-Climate-Smart Rice Cultivation in China	Shengji Yan Institute of Crop Sciences, Chinese Academy of Agricultural Sciences
763	330B02	Global cropland nitrous oxide emissions in fallow period are comparable to growing-season emissions	Ziyin Shang Institute of Crop Sciences, Chinese Academy of Agricultural Sciences
764	34065	Non-linear regulation of soil organic carbon by salinization: aggregate–microbe coupling	Yuanduo Wang Ningxia University
765	31845	Calibration of N, P, and K for Orange-Fleshed Sweet potato (Ipomoea batatas (L) Lam) Production in an Ultisol at Ikwo, Ebonyi State, Nigeria	Iroegbu Chidinma Susan Alex Ekwueme Federal University Ndufu Alike Ikwo Ebonyi state
766	36217	From Soil to Shoots: Fungal Communities in Pea-Barley Intercropping	Magdalena Frąc Institute of Agrophysics, Polish Academy of Sciences, Lublin, Poland
767	36218	Sustainable Alternatives to Peat-Based Growing Media: Microbial Functionality as a Key Indicator	Magdalena Frąc Institute of Agrophysics, Polish Academy of Sciences, Lublin, Poland
768	36402	What fungi can we count on in the mitigation of climate change influence on forests in different climatic regions - comparison of arbuscular and ectomycorrhizal solutions in Serbia and China	Zaklina Marjanovic University of Belgrade - Institute for Multidisciplinary Research, National Institute of the Republic of Serbia, Belgrade, Serbia

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769	31591	Differentiation of Urban Lawn Soils on the Basis of a Combination of Physico-Chemical Methods (for Forensic Purposes)	Anna Khokh Scientific and Practical Center of the State Forensic Examination Committee of the Republic of Belarus
770	31590	ON THE POSSIBILITIES OF USING NIR SPECTROSCOPY TO ESTABLISH THE GENETIC TYPE OF SOILS	Mikhail Stsepaniuk Scientific and Practical Center of the State Forensic Examination Committee of the Republic of Belarus
771	32016	Enhanced Sorption of Per- and Polyfluoroalkyl Substances by Soils from Water via Cation Bridging Interaction	Hui Li Michigan State University
772	32280	Drivers and Consequences of Microbial-Derived Carbon Loss in Degraded Alpine Grasslands on the Qinghai-Xizang Plateau	Zhaolong Zhu College of Soil and Water Conservation Science and Engineering, Northwest A&F University
773	33245	Irreversible soil carbon and nitrogen loss during the thermokarst lake succession under climate change in the Tibetan Plateau	Yuanhong Deng Beijing Normal University
774	330B04	Effects of Long-Term Cultivation on Multi-Trophic Soil Fauna Diversity and Soil Health in Oasis Farmland	Yongzhen Wang Northwest Institute of Eco-Environment and Resources, Lanzhou
775	32709	Identifying the driving factors of soil nitrate nitrogen via MLs-GIS framework in an intensive plain agricultural area, China	Jianwei Liu Henan Agricultural University
776	319B26	From Sedimentation to Laser Diffraction: A New Particle Size Distribution Classification Based on Soil Mechanical Properties	Fomin Dmitriy V.V. Dokuchaev soil Science Institute
777	31685	Investigating the Dry Color Requirement for Mollic and Umbric Horizons	William B. Hernández Virginia Polytechnic Institute and State University
778	35289	Heavy Metal Contamination and associated ecological risks in Soils around Buddha Nullah drain, Punjab, India	Rishabh Pawar Ph.D. Student, Department of Soil Science, Punjab Agricultural University, Ludhiana 141004, India
779	330B06	Management regimes underpin soll carbon accrual followingforest conversion to tea plantations across China	Lin Chen

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780	330B05	Long-term biochar amendment alters dryland soil quality on the Loess Plateau from a soil multifunctionality perspective	Yuanyuan Li Zhengzhou University
781	35199	Drivers of nitrification in surface soils of Oxisols and Ultisols in tropical forests of the Central Highlands, Vietnam	Makoto SHIBATA Graduate School of Global Environmental Studies, Kyoto University, Kyoto, Japan; Graduate School of Agriculture, Kyoto University, Kyoto, Japan
782	35253	Landscape-scale Detection of the Spatio-temporal Variations of Soil Total Nitrogen and Its Influencing Factors in a Grassland by Soil Mapping	Yuxin Feng State Key Laboratory of Earth Surface Processes and Disaster Risk Reduction, Faculty of Geographical Science, Beijing Normal University, China
783	33102	Characterization and Classification of Soils on Sedimentary Parent Rock in Kobape, Southwestern Nigeria	Abayomi S. Fasina Department of Soil Science and Land Resources Management, Federal University Oye-Ekiti
786	32171	Field investigation for 11 years revealed periodic fluctuations in the abundance and composition of bacterial and archaeal communities in paddy-upland rotational field	Watanabe T. Graduate School of Bioagricultural Sciences, Nagoya University, Japan
787	33076	Biochar Effects on Soil Hydrophysical and Chemical Properties: Texture and Particle Size Matter	Laurin Reim, M.Sc. mult. Soil Biophysics and Environmental Systems, School of Life Sciences, Technical University of Munich; Chair of Soil Sciences, School of Life Sciences, Technical University of Munich; MITIGATE GmbH
789	330B07	Optimizing water management for cadmium mitigation in rice production: A global meta-analysis and application effectiveness assessment	Shangyan Hao College of Natural Resources and Environment, Northwest A&F University, Yangling, Shaanxi, China.