**Session Proposal**

# Session Title

A 35-Year Journey of Pedosphere: Promoting Soil Sciences across the World

# Session Organizers

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# Session Description

This session will provide a platform for critical discussion of professional journals on steering of soil science development. *Pedosphere* will be used as a model journal to show the importance of scientific journals in promoting soil science worldwide. Topics will include, but not be limited to: 1) the concept of pedosphere, the launch of the journal *Pedosphere*, and the publication experience with *Pedosphere*; 2) the classic research in pedosphere as a hub connecting the lithosphere, atmosphere, [hydrosphere](https://www.sciencedirect.com/topics/earth-and-planetary-sciences/hydrosphere%22%20%5Co%20%22Learn%20more%20about%20hydrosphere%20from%20ScienceDirect%27s%20AI-generated%20Topic%20Pages), and biosphere; 3) the future of pedosphere at the Anthropocene era: human activities have already modified most of the land so that few truly natural soils exist, and refinements of the pedosphere concept will be, and are being, made as new kinds of features are recognized as significant anthropic characters of the pedosphere; and 4) the role of high-quality journals in promoting soil science, the challenges of maintaining soil sustainability to meet the ever-increasing demand worldwide, and the opportunities for scientists to bridge soil science with the public community and stakeholders.

# Relevance

This session will address the importance of scientific journals in promoting soil science around the world in the era of big data, which aligns with the congress’s theme. The 35-year journey of *Pedosphere* has witnessed not only the rapid advances of soil science, but also the remarkable globalization of academic research. To date, the published papers in *Pedosphere* have been contributed by authors from over 99 countries, and the journal has been listed as a top-tier Q1 journal with an impact factor of 5.2 in 2024 and an estimated impact factor of > 7.0 in February 2025. *Pedosphere* can be considered a model in support of capacity-building of soil science researchers from developing countries while growing up rapidly as one of the leading journals in soil science.

# Format

This session will consist of oral presentations and panel discussions given by globally recognized experts in soil science, scientific publishers, and editorial offices. A pre-session survey to global experts in the field will be conducted. The potential speakers will include, but not be limited to: 1) the members of the Editorial Committee of *Pedosphere*; 2) the authors who would like to share their publication experience in *Pedosphere*; and 3) the leading experts and the editors of other soil science journals.

# Proposed Speakers

1. Jame M. Tiedje, Professor

Center for Microbial Ecology (CME), Michigan State University, USA.

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Dr. Tiedje serves as an Honorary Editor-in-Chief of *Pedosphere*. Dr. Tiedje is a University Distinguished Professor. He was elected to the National Academy of Sciences in 2003 and served as the President of the American Society for Microbiology from 2004 to 2005. Dr. Tiedje is also the CAS Einstein Professor and an elected Academician of Chinese Academy of Sciences (2021). Dr. Tiedje is a world-renowned soil scientist and is well recognized as the founding father of microbial ecology.

1. Jiabao Zhang, Professor

Institute of Soil Science, Chinese Academy of Sciences

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Dr. Zhang is an Honorary Editor-in-Chief of *Pedosphere*. He is an elected Academician of the Chinese Academy of Engineering, the President of the Soil Science Society of China, the Chairman of the Soil Engineering and Technology Committee of the International Union of Soil Science, the Chief Scientist of the National "973 Program" Project and the National Key R&D Program Project, and the Chief Technical Leader of the "Black Soil Granary" Science and Technology Campaign. Dr. Zhang has made outstanding contributions to cultivated land conservation, soil quality improvement, and soil science development in China.

1. **Ren Fang SHEN**, Professor

Institute of Soil Science, Chinese Academy of Sciences

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Dr. Shen is the Editor-in-Chief of *Pedosphere*. He is the winner of the National Outstanding Youth Foundation and a leading researcher in soil fertility, plant nutrition, and plant physiology. Dr. Shen serves as the Director General of the Institute of Soil Science, Chinese Academy of Sciences, the Honorary President of the Soil Science Society of China, the Chief Scientist of the National "973 Program" Project, the Director of the National Engineering Research Center for Soil Nutrient Management and Pollution Remediation, the Chairman of the National Soil Quality Standardization Technical Committee (SAC/TC404), the Consultant of the Virtual Fertilizer Research Center of the International Fertilizer Development Center (IFDC-VFRC), the Executive Director of the Chinese Society of Plant Nutrition and Fertilizer, and the Member of the Expert Guidance Group for Cultivated Land Quality Construction and Management of the Ministry of Agriculture.

1. Rainer F. Horn, Professor

Institute of Plant Nutrition and Soil Science, Kiel University, Germany

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Dr. Horn is an Associate Editor-in-Chief of *Pedosphere* and the Editor-in-Chief of *Soil and Tillage Research*. He is the Honorary Member of the Soil Science Society of Romania and the Romanian Academy of Agriculture and Forestry Science and is the winner of the Fellow Award 2005 of the American Soil Science Society and the Fellow Award 2006 of the American Society of Agronomy. Dr. Horn also served as the President of the German Soil Science Society (2008-2011) and the President of the International Union of Soil Science (IUSS) (2014-2016).

1. Qirong Shen

College of Resources and Environmental Sciences, Nanjing Agricultural University, China

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Dr. Shen is an Associate Editor-in-Chief of *Pedosphere*. He is an elected Academician of the Chinese Academy of Engineering. Dr. Shen serves as the Director of the Academic Committee of Nanjing Agricultural University and the Chairman of the National Organic (Type) Fertilizer Industry Technology Innovation Strategic Alliance. He has been engaged in the research on soil microorganisms, organic fertilizers, and bio-organic fertilizers and has made significant contributions to the improvement of China's soil biological fertility and the development of the organic (type) fertilizer industry.

1. Fusuo Zhang, Professor

China Agricultural University, China

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Dr. Fusuo Zhang is an Associate Editor-in-Chief of *Pedosphere*. He is an elected Academician of the Chinese Academy of Engineering and the Academy of Sciences for the Developing World and serves as the Deputy Director of the Agricultural Department of the Chinese Academy of Engineering. Dr. Zhang also serves as the Director of the Resources, Environment and Food Security Research Center and leads the Scientific Fertilization Technology Expert Group of the Ministry of Agriculture and Rural Affairs. Dr. Zhang is a world-renowned researcher on the theory and technology of plant nutrition and nutrient management.

1. Mingan Shao, Professor

Northwest Agriculture and Forestry University, China

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Dr. Shao is an elected Academician of Chinese Academy of Sciences. Dr. Shao served as the Director of the State Key Laboratory of Soil Erosion and Dryland Agriculture on the Loess Plateau, the Dean of the College of Resources and Environment of Northwest Agriculture and Forestry University, and the Director of the Institute of Soil and Water Conservation of Chinese Academy of Sciences and the Ministry of Water Resources. Dr. Shao also served as the Deputy Director of the Environment and Resources Protection Working Committee of the Standing Committee of the Shaanxi Provincial People's Congress. Dr. Shao is a world-renowned scientist in the research on dryland agriculture and ecological environment restoration construction on the Loess Plateau.

1. Yongguan Zhu, Professor

Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences

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Professor Yongguan (Yong-Guan) Zhu is an elected Academician of Chinese Academy of Sciences, the Fellow of the World Academy of Sciences, the Director General of the Research Center for Eco-environmental Sciences, Chinese Academy of Sciences, and the former Director General of the Institute of Urban Environment, Chinese Academy of Sciences (2009-2018). Professor Zhu is a leader in taking multi-scale and transdisciplinary approaches to environmental problems and has been working on environmental pollution, soil biodiversity, and microbial ecology. Dr. Zhu has received many merit awards, including the TWAS Award for Agricultural Science 2013, the National Natural Science Award 2009, and the International Union of Soil Science von Liebig Award 2022. He has published over 600 papers in international journals and has been selected as a Web of Science Highly Cited Researcher every year since 2016.