**Session Proposal**

# Session Title

Understanding paddy soil microbiomes for food and climate security

# Session Organizers

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| --- | --- | --- | --- | --- |
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# Session Description

This symposium is organized to enhance multi-disciplinary research of biological process rice paddy soil and facilitate the transformation of scientific knowledge to practical application. It will provide an overview of current understanding about rice paddy soil microbiology in relation to soil fertility and greenhouse gas emissions and offer critical discussions about future direction toward rice soil sustainability for food and climate security. Technical innovations on soil microbiome research will be introduced, and key soil biochemical process will be highlighted in different components of rice paddy ecosystem. The research frontiers will be presented during panel discussion. The symposium will also provide a networking opportunity for domestic/early-career soil scientists as well as established international soil scientists.

# Format

This session will include oral presentation and panel discussions.

1. Oral presentation in the form of ppt slides. It will be chaired by Professor Yahai LU. The oral presentation will be made by the invited speakers and colleagues in research fields associated with paddy soils.
2. Panel Discussion with ppt slides or oral speech. It will be chaired by Professor Murase Jun. The discussion will be featured by the invited scientists.

# Proposed Speakers

1. Speaker 1. KIMURA Makoto. Nagoya University, Japan. Prof. Kimura has been a world-renowned scientist in the field of soil biology. He pioneered paddy soil biogeochemical cycling and published over 200 papers and books/chapters. Prof. Kimura served as the President for many organizations such as Soil Microbiology Society of Japan (SMS) and Soil Science and Plant Nutrition Society of Japan (SSPN). Prof. Kimura was awarded with the prestigious Lifetime Achievement Award by the Association of Japanese Agricultural Scientific Societies (AJASS) which represents 50 national societies in Japan.
2. Speaker 2. INUBUSHI Kazuyuki. Prof. Inubushi specializes in Soil Microbiology, Soil Biochemistry and Environmental Science. He was President of Japanese Society of Soil Microbiology, Chairman of International Union of Soil Sciences (IUSS) Sub-committee, Science Council of Japan, and Chair-elected for Commission 2.3 Soil Biology, the IUSS. Author/co-author of 240+ refereed publications, 90+ conference papers, 30+ books and 200+ reports. Board member of Japanese Society of Soil Science and Plant Nutrition, Editorial members of Biology and Fertility of Soils (Regional Editor); Soil Science and Plant Nutrition; and Microbes and Environments.
3. Speaker 3. Prof. Dr. MINAMISAWA Kiwamu is Professor of Environmental Plant Microbiology, Graduate School of Life Sciences, Tohoku University, and Past President of Japanese Society of Microbial Ecology (JSME; 2012-2016). His research focuses on the diversity and functions of plant-associated bacteria including soybean bradyrhizobia and microbial communities associated with rice and soybean plants in agricultural settings. In particular, he has been bridging microbial genomics/metagenomics and microbial processes in the environments with respect to nitrogen cycling and greenhouse gas emission on the earth. He is serving as Senior Editor of The ISME Journal (2011-2016) and Editor-in-Chief of Microbes & Environments (M&E; 2007-2010), and as editorial board member for Applied and Environmental Microbiology, Molecular Plant-Microbe Interactions and Plant Cell Physiology
4. Speaker 4. Prof. Dr. YAO Huaiying. Deputy President of Wuhan University of Engineering. Dr. Yao has published more than 160 papers in domestic and foreign journals in related fields such as Nature Communications, Environmental Microbiology, Environmental Science & Technology, Soil Biology & Biochemistry. He has received the second prize of Zhejiang Province Science and Technology Progress Award, the second prize of Shennong China Agricultural Science and Technology Award, and the Outstanding Young Scholar Award of the First China Soil Society. Dr. Yao serves as Editors/Associate Editors for the journals of Agriculture Ecosystems & Environment, Plant and Soil, Frontiers in Microbiology, Journal of Soils and Sediments.
5. Speaker 5. Dr. Paul Bodelier. Netherlands Institute of Ecology. Drr. Bodelier is a senior scientist. he serves the scientific community by editorial activities (specialty chief editor at Frontiers in Terrestrial Microbiology; Section editor at Plant and Soil, editorial board member at ISME Journal and Applied and Environmental Microbiology; ad hoc reviewer for more than 20 journals; grant reviewing activities NSF, NERC, NWO, ERC, Czech science foundation, Danish research Council etc. Next to these activities he also has a strong interest in the wellbeing of his colleagues, whose interest he represents by being the chairman of the personnel representative committee of the Netherlands Institute of Ecology and member of the employee’s council of the Royal Netherlands Academy of Arts and Sciences.