

**Note: Abstract submissions are open for poster presentations! Submission deadline is March 31<sup>st</sup>.**  
<https://scisoc.confex.com/scisoc/2025kc/cfp.cgi>

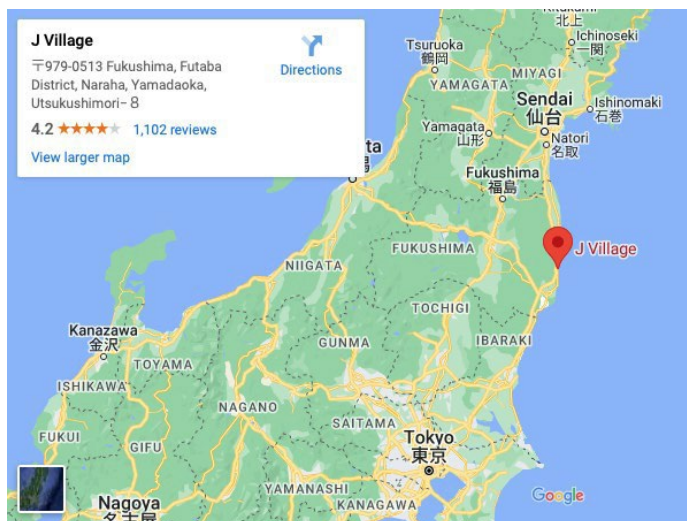
**2025**  
Fukushima, Japan  
August 19-22

# Kirkham Conference



The SSSA Kirkham Conferences Committee has selected Fukushima, Japan, as the host site for the 2025 Kirkham Conference, scheduled for August 19-22, 2025. The conference will be held at J-Village, located near the damaged nuclear reactor site in central Fukushima Prefecture.

This event will feature keynote speakers, research presentations, poster sessions, student-focused activities, social events, and guided tours. Designed to foster in-depth exploration of soil physics, the conference provides a unique opportunity for scientists to engage in both disciplinary and interdisciplinary discussions that are often difficult to achieve at larger meetings.



Abstract submissions are now open [here](#), and registration will open soon.

Conference Title:

**Advancing Soil Physics: From Digital Innovation to Environmental Solutions**



## Scientific Program

### **Theme 1: Cutting-edge Technologies for Soil Management and Digitized Agriculture.**

Exploring cutting-edge technology and methods for soil management and restoration through real-time sensing, digital twins and advanced modeling. This theme encompasses smart farming solutions, IoT sensor networks, artificial intelligence applications, and innovative soil information systems. We welcome contributions on sensor development, data integration frameworks, machine learning applications, remote sensing, precision agriculture implementations, and digital solutions for soil health monitoring and restoration. Special focus on novel approaches combining multiple data streams, cloud computing applications, and practical implementations of digital soil mapping for sustainable agriculture.

**Invited speakers:** **Songchao Chen**, Zhejiang University, China  
**Tarin Paz-Kagan**, Ben-Gurion University of the Negev, Israel

### **Theme 2: Soil Structure as a Nexus of Biogeochemical and Hydrological Processes**

Investigating the critical role of soil architecture in governing water movement, nutrient cycling, and biochemical processes across scales. We seek contributions examining pore-scale dynamics, aggregate stability impacts, root-soil interactions, and their influence on ecosystem services. Topics include advanced imaging techniques, structure-function relationships, scaling methods, modeling approaches linking physical and biological processes, and innovative methodologies for characterizing soil structural properties. Emphasis on multiscale analysis, from micropores to field-scale applications, and their implications for agricultural productivity and environmental quality.

**Invited speakers:** **Sasha Kravchenko**, Michigan State University, US  
**Teamrat Ghezzehei**, University of California, Merced, US

### **Theme 3: Landscape-Scale Soil Hydrology: Bridging Scales and Systems**

Examining the complex interplay between local and regional hydrological processes, from pedon to watershed scale. This theme explores the integration of vertical and lateral water fluxes, including surface-groundwater interactions, flood impacts on soil processes, and coastal soil dynamics. We welcome contributions on watershed modeling, terrestrial-aquatic linkages, climate change impacts on soil hydrology, and innovative approaches to scaling hydrological processes. Special interest in contributions addressing urban-rural interfaces, coastal soil systems, and advanced monitoring technologies for landscape-scale processes.

**Invited speakers:** **James Kirchner**, ETH-Zurich, Switzerland  
**Naoya Masaoka**, Kyoto University, Japan

### **Theme 4: Environmental Fate and Transport of Soil Contaminants**

Investigating the movement and transformation of contaminants in soil-water systems, including both surface and subsurface transport processes. We seek contributions on laboratory- and field-scale studies in various environmental compartments (e.g., surface runoff, vadose zone and saturated zone), innovative monitoring techniques and modeling approaches, and remediation strategies. Special focus on the fate and transport of radionuclides and emerging contaminants, and the development of sustainable remediation solutions.

**Invited speakers:** **Markus Flury**, Washington State University, US  
**Taku Nishimura**, The University of Tokyo, Japan

## Conference Format

The conference will begin with an informal "get-to-know-you" session for students and early-career scientists on August 18th from 4:00–7:00 PM, with refreshments provided.

The two-day scientific program will focus on the four conference themes. Each theme will feature a keynote presentation, an invited oral presentation, and a discussion session. These will be followed by poster introductions, where each presenter will have 90 seconds to summarize their work, leading into the poster presentations. Additionally, the program will include a special presentation by the Kirkham Medalist (awarded every eight years).

The local organizing committee has planned two field trips showcasing disaster-affected areas and ongoing remediation efforts, with additional invited presentations. Cultural events are also in development to enhance the conference experience.



## Details

Abstract submissions are open for poster presentations [here](#). Submission deadline is March 31<sup>st</sup>. Registration will open soon with anticipated rates at \$325 for students and \$450 for professionals. Hotel room reservations at J-Village will be available for conference attendees, with details to be provided closer to the event. Additionally, the local organizing committee is coordinating local transportation options from Tokyo to Fukushima for those flying into the city.

## About Kirkham Conferences

Kirkham Conferences focus on soil physics, emphasizing the integration of experiment, theory, and application. These conferences aim not only to educate but also to foster discussion, collaboration, and innovation in the field.

The Kirkham Conference brings together soil physics researchers and experts from related disciplines to exchange ideas and present their research. Discussions address the future of soil physics, global challenges, emerging opportunities, and real-world applications. Held approximately every four years, past conferences have taken place in the U.S. (2000, 2004, 2008), New Zealand (2012), Israel (2016), and South Africa (2022).

Unlike many large-scale conferences, the Kirkham Conference is intentionally designed to be small, promoting in-depth discussions and close interactions among participants. This setting provides students and early-career researchers with a rare opportunity to engage with leading scholars. Hosting the conference in diverse international locations highlights the global relevance of soil physics and offers attendees a rich intellectual and cultural experience.