

**SSA 2025 Environmental Seismology Speakers and Topics  
Denver, Colorado, United States of America, 14-18 October 2025**

## **Topics**

The content will be organized broadly in **the following topic areas:**

### **Anthropogenic and Urban Seismology**

This session explores anthropogenic seismic signals and how seismology can assist in monitoring engineered structures such as dams and buildings, including impacts due to structural fatigue and environmental hazards such as flooding, sea level rise, and land movements.

### **Cryoseismology**

Dynamic processes in glaciers, icebergs, sea ice, and permafrost have increasingly incorporated seismological methods in recent years. This session invites broad contributions related to ice-ice, ice-water, and ice-bed processes.

### **Geophysical and Biogenic Signals from the Oceans, Surface Water, and Atmosphere**

Seismoacoustic signals originating and/or propagating in oceans, rivers, and the atmosphere contribute to understanding storms, ocean waves, marine mammal behavior, sediment transport, water flow, and other diverse environmental phenomena.

### **Near-Surface Imaging and Dynamics**

Seismology has unique capabilities for illuminating and estimating near-surface Earth structure. This session will encompass ambient noise and active source studies related to the presence of and changes in seismic structure relevant to groundwater, geothermal resources, and other geo-reservoir systems, as well as environmental and critical zone interaction.

### **Novel Approaches for Environmental Seismology**

This session explores new or emerging opportunities and methods in environmental seismology. Commonly, such applications incorporate diverse sensor types and require new processing techniques, including AI and ML applications.

### **Seismic Interrogation of Mass Movements**

Seismology advances our understanding of the processes resulting in mass movements such as landslides, rock falls, and rock fracture. This session will include both methodological and

instrumentation developments in the uses of seismology related to monitoring and understanding of these processes and their spatiotemporal evolution.

### **Workshops**

Seismological studies of environmental problems often require assembling and interpreting diverse data sets. We present hands-on workshops on accessing and processing seismic and environmental data, and engage in discussions about successful methods for data fusion.