

## Special Issue

# Advanced Pre-Earthquake Sensing and Detection Technologies

### Message from the Guest Editors

A significant challenge for the science community is understanding earthquake processes and other geohazards in the context of rapidly changes to the Earth as a result of the Sun's activities and exacerbating climate change. This volume presents the latest results of cross-disciplinary space- and ground-based studies on the synergy of pre-earthquake processes. It advances earlier interdisciplinary results from studies of the Earth's global environment with ground- and/or space-borne multi-instrument observations. Over the last 30 years, international community cooperation has shown the existence of pre-earthquake phenomena and suggested the concept of lithosphere–atmosphere–ionosphere coupling (LAIC), which indicates that different types of disturbances in the lithosphere–electromagnetic, electrical, mechanical, and geochemical—accompany the earthquake preparation process. However, there are still a few open questions regarding differences in space weather and other influences, bio-sensing phenomena, and the role of triggers in the occurrence of earthquakes.

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### Deadline for manuscript submissions

30 November 2025



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