

GEOPHYSICAL METHODS AND THEIR GEOLOGICAL APPLICATIONS SESSION

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Understanding the Earth, Seeking Solutions to Future Challenges Together

Climate change, the energy transition, growing demand for critical raw materials, increasing pressure on water resources, and the societal impacts of natural hazards make a better understanding of the Earth and its processes increasingly important. Addressing these challenges requires not only a sound understanding of the subsurface but also collaboration across geoscience disciplines.

Geophysical methods make important contributions to a wide range of fields, from seismic imaging and subsurface characterization to geothermal energy and mineral exploration, groundwater investigations, carbon storage, marine and coastal studies, environmental monitoring, and natural hazard assessment.

Collaboration between geophysics and geology is fundamental to these efforts. Integrating geophysical measurements with geological observations enables a more comprehensive understanding of subsurface structures and processes and allows geological problems to be investigated from complementary perspectives.

This session will address recent research and practical applications of geophysical methods in geology, alongside advances in data acquisition, processing, modelling, and interpretation. Particular emphasis will be placed on the integration of geophysical and geological data, interdisciplinary collaboration, and the contribution of geophysical research to sustainable resource management, environmental protection, and the assessment and mitigation of natural hazards.

We invite geophysicists and colleagues from related disciplines to share their findings and experience, exchange ideas, and contribute to a better understanding of the Earth and the development of collaborative solutions to the challenges of today and tomorrow.