



## Seismic Full-Waveform Imaging and Inversion across Scales

Guest Editor:

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Deadline for manuscript  
submissions:

**closed (30 June 2023)**

### Message from the Guest Editor

Dear Colleagues,

The overall goal of this Special Issue is to bring together original cutting-edge research articles, reviews, and notes addressing seismic full-waveform imaging and inversion. This Special Issue invites contributions that cover aspects including but not limited to the following:

Reflectivity imaging: acoustic/elastic reverse-time migration, least-squares migration, and other high-resolution migration methods;

Tomographic inversion: full-waveform inversion (FWI) or teleseismic FWI (deterministic or stochastic) using body waves, surface waves, or both;

Misfit function using L2 norm, Wasserstein norm, and so on, with regularization constraints, insensitive to local minima;

Multi-parameter applications in viscous media, elastic media, or both;

Multi-scale applications at the local, regional, or global scale;

Uncertainty quantification in deterministic or stochastic (gradient-based or Bayesian) approaches;

High-performance computing using MPI, GPU, or both.

Research on emerging technologies such as distributed acoustic sensing and machine learning is also welcome.





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## Editor-in-Chief

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## Message from the Editor-in-Chief

Understanding the Earth's origin and its bio-geological evolution, the multiple implications of the geosciences (as a coherent set of interconnected disciplines), and the sociocultural and ethical interdisciplinary approaches, will be crucial for a better understanding of Nature, and also for undertaking scientifically based political decisions.

We are committed to drive *Geosciences* to a position in which it is recognized for its high-quality, cutting-edge research and scientific influence, and strongly encourage and invite your participation and manuscripts.

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