

Special Issue

Seismic Full-Waveform Imaging and Inversion across Scales

Message from the Guest Editor

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.

Guest Editor

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Deadline for manuscript submissions

closed (30 June 2023)



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About the Journal

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.

Editor-in-Chief

Prof. Dr. John C. Eichelberger

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