

Special Issue

Technologies for Forecasting Volcanic Hazards: From Remote Sensing to Modeling

Message from the Guest Editors

Forecasting volcanic hazards presents extraordinarily challenging problems. However, there is significant progress in forecasting volcanic hazards and, in specific circumstances, in making predictions. Improvements in forecasting are closely related to a wealth of data from enhanced monitoring techniques, such as satellite observations, and tremendous advances in computing power, leading to the increased use of data-driven approaches, including artificial intelligence (AI) techniques, to solve problems of volcanic hazards. Looking to the future, AI models can be combined with physical constraints to bridge the gap between data-driven methods and physical modeling and to increase the interpretability of AI predictions, offering an alternative path to deal with the strongly nonlinear and time-dependent character of volcanic phenomena. This Special Issue invites contributions (original research articles and reviews are welcome) on the improvement of traditional ground-based volcano monitoring systems with technological innovation from satellite remote sensing, and of computational methods, blending deep-learning, data-driven approaches, and physics-based simulations.

Guest Editors

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Deadline for manuscript submissions

closed (10 May 2025)



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Message from the Editor-in-Chief

Remote Sensing is now a prominent international journal of repute in the world of remote sensing and spatial sciences, as a pioneer and pathfinder in open access format. It has highly accomplished global remote sensing scientists on the editorial board and a dedicated team of associate editors. The journal emphasizes quality and novelty and has a rigorous peer-review process. It is now one of the top remote sensing journals with a significant Impact Factor, and a goal to become the best journal in remote sensing in the coming years. I strongly recommend *Remote Sensing* for your best research publications for a fast dissemination of your research.

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