



Application of Machine Learning in Volcano Monitoring

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Message from the Guest Editors

Dear Colleagues,

Volcanic eruptions represent significant natural hazards to communities living at the edge of active volcanoes. Along with ground-based networks of seismometers, GNSS sensors, webcams, and gas sampling, volcano monitoring increasingly relies on satellite remote sensing methods to provide information on volcanic hazards. These large data sets can provide relevant hazard information throughout the entire hazard period, beginning with the detection of eruption precursors and ending with the estimation of a volcanic source model associated with an analyzed eruption. The use of machine learning is gaining importance in volcanology, not only for monitoring purposes (i.e., in real time) but also for later hazards analysis (e.g., modelling tools).

This Special Issue welcomes papers that cross-fertilize efforts in traditional volcano monitoring with new technological innovations from satellite remote sensing and machine learning techniques for increasing the capability to forecast, detect and track hazardous volcanic activity worldwide.





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