

## Special Issue

# Volcano Monitoring: From the Magma Reservoir to Eruptive Processes

### Message from the Guest Editors

Volcano observatories face continuous evolution of instrumental sensitivity and dynamic range, ground-based network increasing density, increasing remote sensing frequency and resolution, and real-time data processing efficiency. This has direct implications on a better monitoring and improved eruption forecasting. The next challenge is now certainly focused on data interpretation and modeling, i.e., how to use real-time monitoring observations to estimate quantitative physical parameters that describe the internal processes associated to an unrest or an eruption. This Special Issue is intended for a wide and interdisciplinary audience and covers recent advances in: - Volcano geophysics (edifice tomography and mechanics, plumbing system, fluid dynamics) from seismology, geodesy, gravimetry, electromagnetic, and other methods; - Volcano geochemistry (magma reservoir, pressure, temperature and content, gas flux); - Volcano physics (edifice instability and flow simulations); - Multidisciplinary modeling of volcanic systems; - Integrated monitoring tools.

### Guest Editors

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### Deadline for manuscript submissions

closed (20 January 2022)



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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
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