



Advanced Technologies in Monitoring of Volcanic Clouds with GNSS

Guest Editors:

Dr. Hugues Brenot

Royal Belgian Institute for Space
Aeronomy, 1180 Brussels,
Belgium

Dr. Riccardo Biondi

Dipartimento di Geoscienze,
Università degli Studi di Padova,
35122 Padova, Italy

Deadline for manuscript
submissions:

closed (31 March 2022)

Message from the Guest Editors

The volcanic emission of hazardous gas and ash into the atmosphere poses a worldwide risk to human society. It can impact the health of and threaten local population, but it is also a major risk for the safety of air traffic. In order to enhance the monitoring of these problems, this Special Issue invites studies aiming at characterising volcanic clouds. Using GNSS ground-based and/or radio-occultation techniques, this characterisation can rely on retrieving the composition of the volcanic emission and its plume height, thickness and density. Such studies can include observations of the ground-deformation and the seismicity, the understanding of the mechanisms of an eruption using multi-techniques, and the analysis of the composition of gas emissions. The implementation of new GNSS products characterising the volcanic cloud can be explored in synergy with other observations from ground-based instruments or hyperspectral and broadband sensors on-board polar orbiting and geostationary satellites. Study combining GNSS solutions to retrieve continuous 3D properties of volcanic plume with tomographic technique can also be investigated and compared with other techniques.





an Open Access Journal by MDPI

Editor-in-Chief

Dr. Prasad S. Thenkabail

Senior Scientist (ST), U. S.
Geological Survey (USGS), USGS
Western Geographic Science
Center (WGSC), 2255, N. Gemini
Dr., Flagstaff, AZ 86001, USA

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.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Ei Compendex, PubAg, GeoRef, Astrophysics Data System, Inspec, dblp, and other databases.

Journal Rank: JCR - Q1 (Geosciences, Multidisciplinary) / CiteScore - Q1 (General Earth and Planetary Sciences)

Contact Us

Remote Sensing Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/remotesensing
remotesensing@mdpi.com
[X@RemoteSens_MDPI](https://twitter.com/RemoteSens_MDPI)