



remote sensing



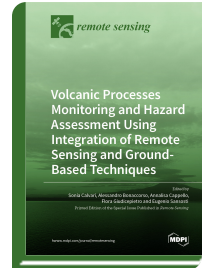
Special Issue Reprint

Volcanic Processes Monitoring and Hazard Assessment Using Integration of Remote Sensing and Ground-Based Techniques

www.mdpi.com/books/reprint/6099

Edited by
Sonia Calvari
Alessandro Bonaccorso
Annalisa Cappello
Flora Giudicepietro
Eugenio Sansosti

ISBN 978-3-0365-5119-7 (Hardback)
ISBN 978-3-0365-5120-3 (PDF)



The monitoring of active volcanoes is a complex task based on multidisciplinary and integrated analyses that use ground, drones and satellite monitoring devices. Over time, and with the development of new technologies and increasing frequency of acquisition, the use of remote sensing to accomplish this important task has grown enormously. This is especially so with the use of drones and satellites for classifying eruptive events and detecting the opening of new vents, the spreading of lava flows on the surface or ash plumes in the atmosphere, the fallout of tephra on the ground, the intrusion of new magma within the volcano edifice, and the deformation preceding impending eruptions, and many other factors. The main challenge in using remote sensing techniques is to develop automated and reliable systems that may assist the decision maker in volcano monitoring, hazard assessment and risk reduction. The integration with ground-based techniques represents a valuable additional aspect that makes the proposed methods more robust and reinforces the results obtained. This collection of papers is focused on several active volcanoes, such as Stromboli, Etna, and Volcano in Italy; the Long Valley caldera and Kilauea volcano in the USA; and Cotopaxi in Ecuador.



Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/6099

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.