



Advances in Geophysical Exploration

Guest Editors:

Dr. Paulo T. L. Menezes

1. Departamento de Geologia
Aplicada da Faculdade de
Geologia, Universidade do
Estado do Rio de Janeiro, Rio de
Janeiro 20943-000, Brazil
2. Petrobras, Rio de Janeiro
20031-912, Brazil

Dr. Valeria Barbosa

Department of Geophysics,
Observatório Nacional, Rio de
Janeiro 20921-400, Brazil

Deadline for manuscript
submissions:

closed (31 August 2025)

Message from the Guest Editors

Recent technological advancements in applied geophysics have significantly enhanced our ability to accurately image and comprehend the Earth's characteristics and processes. A key aspect of geophysical exploration is the new paradigm of aiming at reducing the environmental impact of exploration activities. These changes have impacted all exploration domains, such as mineral, hydrocarbon, groundwater, environmental, hydrogen, and geothermal.

Thus, this Special Issue aims to provide a platform for exchanging and discussing new knowledge about the future of geophysical exploration. It focuses on developments in all geophysical methods that are currently used. We have divided the themes into three sections:

- Section 1—Developments in forward and inverse modeling algorithms.
- Section 2—Developments and case studies in mineral, hydrocarbon, hydrogen, and geothermal exploration.
- Section 3—Developments and case studies in hydrogeological and environmental studies, including carbon capture, utilization, and storage (CCUS) and energy storage.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica,
Politecnico di Milano, Piazza L.
da Vinci 32, 20133 Milano, Italy

Message from the Editor-in-Chief

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.

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, Inspec, Embase, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

Contact Us

Applied Sciences Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/applsci
applsci@mdpi.com
[X@Applsci](https://twitter.com/Applsci)