



an Open Access Journal by MDPI

# **Seismic Exploration and Geothermal Energy**

Guest Editor:

#### Prof. Dr. Jun Matsushima

Department of Environment Systems, Graduate School of Frontier Sciences, The University of Tokyo, Tokyo, Japan

Deadline for manuscript submissions: closed (20 August 2022)

#### Message from the Guest Editor

Dear Colleagues,

Advancements in technology for acquiring high-quality seismic exploration data through 3D land seismic, vertical seismic profiling (VSP), sonic logging surveys allow seismic wave properties to be measured over a broad frequency range in geothermal reservoirs. In parallel with advancements in these data acquisition technologies, robust data processing methods have been developed to identify and characterize the fracture/fault systems and hydrothermal systems. The quality of seismic exploration data obtained in geothermal areas is poor due to rock heterogeneities, reverberations of near-surface direct waves, and high seismic wave attenuation due to the presence of gas or hot material. To reduce the drilling risk and costs, further development is needed in various topics including seismic data acquisition, data analysis, simulation of seismic wave propagation, laboratory measurements, and rock physics modeling. This special issue provides an opportunity for further discussion of benefits and challenges of seismic exploration in geothermal areas. We welcome submissions from a wide range of contributors in any area of geothermal seismic exploration.









an Open Access Journal by MDPI

## **Editor-in-Chief**

#### Message from the Editor-in-Chief

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

CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (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