Special Issue

Seismic Exploration and Geothermal Energy

Message from the Guest Editor

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.

Guest Editor

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Deadline for manuscript submissions

closed (20 August 2022)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/61209

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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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