Special Issue

Multiscale Rock-Physics Modeling

Message from the Guest Editor

As is known, a rock's physical properties are different at different scales. Commonly, in geophysical practice, these scales include the core scale, logging scale, and seismic scale. However, the properties on all scales are interrelated and the properties at previous scales manifest themselves at larger scales. To solve the up- and downscaling problems, different rock-physics approaches can be applied. Besides, the rock-physics allows one to find interrelations between different physical properties at different scales based on the same rock's inner structure controlling these physical properties. The following are some of the topics proposed to the Special Issue (but not limited to):

- Rock-physics models of different physical properties: elastic, viscoelastic and transport
- Rock-physics models at different scales: from core to seismic scales
- Anisotropy in rock's physical properties at different scales and its reflection in rock-physics models
- Upscaling and downscaling problems
- Interrelations between different physical properties of rocks

Guest Editor

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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.

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