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Multiscale Rock-Physics Modeling

Guest Editor:

Dr. Irina Bayuk
Institute of Physics of the Earth
Russian Academy of Sciences,
123242 Moscow, Russia

Deadline for manuscript submissions:
closed (10 November 2022)

Message from the Guest Editor

Dear Colleagues,

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

Dr. Irina Bayuk
Guest Editor

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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

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

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