



Digital Petroleum Geomechanics

Guest Editors:

Dr. Mohammad Sarmadivaleh

Western Australia School of Mines (WASM), Minerals, Energy and Chemical Engineering, Curtin University, 26 Dick Perry Avenue, Kensington, WA 6151, Australia

Dr. Tobias M. Müller

1. School of Earth Sciences and Engineering, Hohai University, Nanjing 211100, China
2. Department of Seismology, Centro de Investigación Científica y de Educación Superior de Ensenada, Ensenada, Mexico

Deadline for manuscript submissions:

closed (30 June 2019)

Message from the Guest Editors

Dear Colleagues,

We are organizing a Special Issue focusing on both fundamental and application of Digital Rock Mechanics (DRM) in petroleum geo-mechanics. We are targeting original high-quality works and welcome experimental, numerical, and case studies in petroleum geomechanics, preferably with a high level of DRM involvement.

Most petroleum applications involve significant amounts of complexities due to scale-dependency of the problems, as well as tightly coupled physical phenomena. High stresses, the influence of fluid movement, temperature changes and disturbances due to chemical reactions are amongst the roots of these complexities. A better understanding of the small-scale rock behavior and in-depth visualization and modeling of such phenomenon have come to the attention of scientific society in the recent years. Pore scale rock deformation before, during and after multiphysic behaviour is observed experimentally using 3D images and/or modeled numerically where its scientific importance has been acknowledged in a considerable number of articles. However, being a relatively new field of research, there are numerous gaps in understanding.





an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Jesus Martinez-Frias

Instituto de Geociencias, IGEO
(CSIC-UCM), C/ Del Doctor Severo
Ochoa 7, Edificio
Entrepabellones 7 y 8, 28040
Madrid, Spain

Message from the Editor-in-Chief

Understanding the Earth's origin and its bio-geological evolution, the multiple implications of the geosciences (as a coherent set of interconnected disciplines), and the sociocultural and ethical interdisciplinary approaches, will be crucial for a better understanding of Nature, and also for undertaking scientifically based political decisions.

We are committed to drive *Geosciences* to a position in which it is recognized for its high-quality, cutting-edge research and scientific influence, and strongly encourage and invite your participation and manuscripts.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, ESCI (Web of Science), GeoRef, Astrophysics Data System, and other databases.

Journal Rank: JCR - Q2 (*Geosciences, Multidisciplinary*) / CiteScore - Q1 (General Earth and Planetary Sciences)

Contact Us

Geosciences Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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

mdpi.com/journal/geosciences
geosciences@mdpi.com
[X@Geosciences_OA](https://twitter.com/Geosciences_OA)