

Special Issue

Application of Advanced Numerical Simulation in Petroleum Engineering

Message from the Guest Editors

This Special Issue aims to collect high-quality original research articles and comprehensive reviews that address the latest advances in numerical methods, computational modeling, and simulation-based engineering applied to petroleum systems. We particularly welcome interdisciplinary contributions that bridge simulation with data-driven approaches, system dynamics, and real-world field applications. Topics include, but are not limited to:

- Numerical simulation methods in geological and reservoir engineering;
- Advanced modeling and simulation for drilling engineering;
- Petroleum metering and flow measurement simulation;
- Well control dynamics and blowout prevention modeling;
- Numerical methods in petroleum production engineering and enhanced recovery;
- Condition monitoring, fault diagnosis, and maintenance simulation of petroleum equipment;
- Petroleum detection technologies and sensor-based simulation;
- Pipeline transportation modeling and flow assurance;
- System dynamics modeling of petroleum production and supply chain systems;
- Integration of machine learning and data-driven approaches with numerical simulation.

We look forward to receiving your valuable contributions to this Special Issue.

Guest Editors

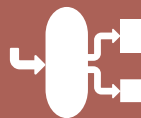
Dr. Mingyang Liu

School of Mechanical and Electrical Engineering, Southwest Petroleum University, Chengdu 610500, China

Dr. Quanchang Li

School of Mechanical and Electrical Engineering, Southwest Petroleum University, Chengdu 610500, China

Deadline for manuscript submissions



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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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Prof. Dr. Giancarlo Cravotto

Department of Drug Science and Technology, University of Turin, Via P. Giuria 9, 10125 Turin, Italy

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