

## Special Issue

# Two-Phase Flows: Modeling and Simulation

### Message from the Guest Editors

Two-phase flows are essential in a wide range of engineering and industrial processes. Their complex nature, characterized by interactions between phases and phenomena. Recent advancements in modeling and simulation techniques, supported by experimental validation and innovative visualization methods, have enhanced our ability to predict and control two-phase flow behavior, paving the way for improved system performance and innovative applications. This Special Issue invites high-quality contributions that explore the latest research, innovations, and applications in this field. Topics of interest include, but are not limited to, the following:

- Advanced computational techniques for modeling two-phase flows, including CFD- and AI-based approaches;
- Simulation and analysis of interfacial dynamics and phase change phenomena;
- Experimental studies for model validation and benchmarking;
- Heat and mass transfer in two-phase systems;
- Two-phase flow in energy systems, including nuclear reactors and renewable energy applications;
- Multiphase flow behavior in microfluidics and porous media;
- .....

### Guest Editors

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### Deadline for manuscript submissions

30 September 2025



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