

Special Issue

Mathematics and Computational Methods in Nuclear Energy Technology

Message from the Guest Editors

This Special Issue aims to present the most recent research and developments in mathematics and computational methodologies (including theories, methods, models, frameworks, tools, etc.) applied to the nuclear energy technologies. Themes of interest include but are not limited to:

- Multi-scale/multi-physics simulation for existing and advanced nuclear energy systems
- Artificial intelligence applications in nuclear energy
- Deterministic, Monte Carlo, and hybrid methods in reactor physics analyses
- Thermal-hydraulics and safety analysis
- Computational fluid dynamics and applications
- Computer code development, verification, and validation
- Uncertainty quantification, sensitivity analysis, and optimization
- High-performance computing, visualization for fluid flow and radiation transport problems
- Other applications related to advanced mathematics and computational methods in nuclear energy

We welcome submissions on novel concepts and innovations of original research articles as well as communications and review articles from different disciplines that are relevant to the abovementioned topics.

Guest Editors

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Deadline for manuscript submissions

closed (31 October 2023)



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Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

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