

Special Issue

Advanced Numerical Modelling Techniques for Nuclear Reactors

Message from the Guest Editors

We invite the nuclear community (academia, research institutions, industry, regulators, and TSO) to submit original and unpublished manuscripts to this Special Issue that is focused on recent developments relevant to “Core and Reactor Analysis”. The goal of the Special Issue is to publish the most recent research results on computational reactor physics and analysis relevant for design optimization and safety evaluation. The topics suited for this Special Issue include, but are not limited to:

- New deterministic transport solvers for pin-based core analysis (static and transients);
- Advances in Monte Carlo methods for the analysis of core transients, e.g., REA;
- New methods for the detailed multi-physics analysis of core depletion (neutronic, thermal hydraulic, and thermo-mechanics);
- Multiscale reactor analysis method based on the coupling of different thermal hydraulic solvers (CFD, subchannel, and system);
- New reactor physical methods for the improved prediction of safety parameters based on different transport approximations (diffusion, SP3, MOC, etc.);
- Applications of the methods and code to LWR including SMR.

Guest Editors

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Deadline for manuscript submissions

closed (31 July 2022)



Energies

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Impact Factor 3.2
CiteScore 7.3



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About the Journal

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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