Special Issue

Thermal Hydraulics and Modelling for Nuclear Energy Systems

Message from the Guest Editor

Nuclear energy systems are heavily dependent on thermal hydraulic performance for the maintenance of safety limits and for the efficient transmission of energy to end users. Furthermore, the rising field of Digital Twins is quickly blurring the lines between traditional modelling and simulation for design and real-time predictive performance models with full two-way system integration. This is pushing the need for higher fidelity modelling and simulation, deeper validation and verification, and faster computation to meet the goals of a Digital Twin. This Special Issue aims to present and disseminate the most recent advancements in thermal hydraulics, modelling and simulation, and digital twin efforts to support nuclear energy systems. Topics of interest to this Special Issue include, but are not limited to, the following:

- Thermal hydraulics;
- Modelling and simulation;
- Real-time systems;
- Heat transfer;
- Computational fluid dynamics;
- Nuclear energy systems;
- Experimental thermal fluids;
- Digital twins;
- Advanced nuclear reactors.

Guest Editor

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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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