Special Issue

Advanced Multi-Physics Modeling, Simulation, and Optimization for Nuclear Technology

Message from the Guest Editors

This Special Issue aims to include the most recent advances in methodologies for modeling and analysis of nuclear fission and fusion systems. The topics of interest include but are not limited to the following:

Fields:

- Neutron physics for fission and fusion;
- Multi-physics: material science, nuclear fuel performance, thermal hydraulics, activation;
- Nuclear data;

Methods:

- Advanced: AI, machine learning, variance reduction, automatized modeling;
- Sensitivity analysis, uncertainty quantification;

Technologies:

- Current and new reactor technologies;
- Accelerator driven systems (ADS);
- Fusion-related facilities: ITER, DEMO, IFMIF-DONES, etc.

Guest Editors

Dr. Pablo Romojaro

Dr. Gašper Žerovnik

Dr. Aljaž Čufar

Deadline for manuscript submissions

closed (16 November 2024)

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Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

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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.

Editor-in-Chief

Prof. Dr. Enrico Sciubba
Department of Mechanical and Industrial Engineering, University Niccolò Cusano, 00166 Roma, Italy

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