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Advanced Numerical Modelling Techniques for Nuclear Reactors

Guest Editors:

Dr. Victor Hugo Sánchez Espinoza
Karlsruhe Institute of Technology (KIT), Institute of Neutron Physics and Reactor technology (INR), Hermann-von-Helmholtz-Platz 1, 76344 Eggenstein-Leopoldshafen, Germany

Victor.Sanchez@kit.edu

Dr. Andrea Zoia
Université Paris-Saclay, CEA, Service d'Etudes des Réacteurs et de Mathématiques Appliquées, 91191 Gif-sur-Yvette, France

andrea.zoia@cea.fr

Deadline for manuscript submissions:
25 January 2022

Message from the Guest Editors

Dear Colleagues,

We invite the nuclear community (academia, research institutions, industry, regulators, and TSO) to submit original and unpublished manuscripts to this Special Issue that is focused on recent developments relevant to "Core and Reactor Analysis".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.

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Editor-in-Chief

Prof. Dr. Enrico Sciubba
Department of Mechanical and Aerospace Engineering, University of Roma Sapienza, Via Eudossiana 18, 00184 Roma, Italy

Message from the Editor-in-Chief

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Energies
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
Fax: +41 61 302 89 18
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