

Aushang

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Einladung zum Seminar über „Nukleare Energieerzeugung“

Zeit: Montag, 16. Juni 2025, 11:00 Uhr

Ort: Karlsruher Institut für Technologie, Hermann-von-Helmholtz-Platz 1
76344 Eggenstein-Leopoldshafen, INR, Bau 521, Raum 302

Referentin: Frau Dr. Verónica Jáuregui Chávez, Framatome Erlangen

Titel: V&V of the ARCADIA code system for SMRs

Abstract:

Framatome's nuclear core design and safety analysis code system ARCADIA has been extensively verified and validated with a rich database over the years. However, it is important for Framatome and all the ARCADIA¹ team to further enhance the already rich validation and verification database. The increase of the validation and verification database not only for Pressurized Water Reactors (PWRs) and Boiling Water Reactors (BWRs), but to other designs e.g. Small Modular Reactors (SMRs), is important for Framatome taking in account their possible relevance for the future of the energy production.

The European Project McSAFER contributes to neutronic and thermal-hydraulic safety analyses for different kinds of SMRs:

- NuSCALE-like; CAREM-like; SMART-like; Nuward-like

The ARCADIA code system is used for calculating the NuSCALE-like reactor developed in the frame of the McSAFER project. The fuel assembly cross sections are calculated using the lattice physics code APOLLO2-A while the core is simulated with ARTEMIS, a 3D core simulator and with thermal-hydraulic feedback from COBRA-FLX. It is the purpose of this work to prove the full capabilities of the ARCADIA system code to accurately simulate the design of NuSCALE-like SMR presented by the McSAFER project and to further validate the different codes which are part of the ARCADIA code system.

Hinweis: Alle auswärtigen Besucher des Seminars werden gebeten, ihren gültigen Personalausweis oder Reisepass mitzubringen

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