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1024 Peacock: Development of a New Continuous Energy Monte Carlo Transport Code—*William C. Dawn (Studsvik Scandpower), Charles Wemple (Studsvik Scandpower), Joshua Hykes (Studsvik Scandpower), Rodolfo M. Ferrer (Studsvik Scandpower), Joel Rhodes III (Studsvik Scandpower)*

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1046 Code-to-Code Verification of the ARC Codes on a 1500 MWth Metallic-Fueled SFR Core—*Ahmed A. Abdelhameed (ANL), Kyle Ramey (ANL), Kalin Kiesling (ANL), Nicolas E. Stauff (ANL)*

1050 Flux Characterization of Washington State University's Epithermal Neutron Beam Facility—*Travis J. Zipperer (PNNL), Larry R. Greenwood (PNNL), Bruce D. Pierson (PNNL), Walter G. Luscher (PNNL), Hillary L. Bennett (Washington State), Corey Hines (Washington State)*

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1062 Development of an Advanced Cross-Section Model Including Control Rod Depletion—*Jinsu Park (Ulsan Nat'l Institute Science and Technology), Wisoo Jeong (KEPCO Nuclear Fuel), Changhyun Lim (KEPCO Nuclear Fuel), Deokjung Lee (Ulsan Nat'l Institute Science and Technology)*

1066 Error Propagation Analysis, from LWR Assemblies to Plants, Using SCALE/Polaris-PARCS with the ENDF/B-VII.1 and VIII.0 AMPX 56-Group Libraries—*Kang Seog Kim (ORNL), William A. Wieselquist (ORNL)*

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1076 Development of the DOME Shield Model for the NRIC Virtual Test Bed—*Mohamed Elkamash (INL), Lise Charlot (INL), Mustafa K. Jaradat (INL), Shikhar Kumar (ANL), Joffrey Dorville (ANL), Emily Shemon (ANL), Paul Romano (ANL), April J. Novak (Univ. Illinois, Urbana-Champaign)*

1080 NEAMS Microreactor Models Submitted to the VTB in 2024—*Nicolas E. Stauff (ANL), Yinbin Miao (ANL), Ahmed Abdelhameed (ANL), Yan Cao (ANL), Kun Mo (ANL), Emily Shemon (ANL)*

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- 1102 Reactivity Insertion Accident Simulation of Small Modular Reactor Based on Multi-Dimensional Core Transient Analysis Code System—*Jin-Woo Park (KEPCO Nuclear Fuel), Yeong-Uk Jo (KEPCO Nuclear Fuel), Dae-Gwang Hong (KEPCO Nuclear Fuel), Byeong-II Jang (KEPCO Nuclear Fuel), Sung-Ju Cho (KEPCO Nuclear Fuel)*

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- 1110 Assessment of Boron Concentration Requirement to Maintain Subcriticality After MINI-21 Reactor Shutdown—*John Bess (JFoster & Assoc.), Gray Chang (JFoster & Assoc.), Pat Moo (JFoster & Assoc.), Julie Foster (JFoster & Assoc.)*
- 1114 The Analysis of Controlling Reactivity Based on Coolant Temperature for Soluble Boron-Free SMR Core—*Na Yeon Seo (KEPCO Nuclear Fuel), Seong Ho Park (KEPCO Nuclear Fuel), Junggyu Lee (KEPCO Nuclear Fuel)*
- 1118 Evaluation of Core Characteristics of Soluble-Boron-Free Core and Boric-Acid Core SMRs—*Jong Hoon Kim (KEPCO Nuclear Fuel), Bum Hee Jo (KEPCO Nuclear Fuel), Jin Sun Kim (KEPCO Nuclear Fuel), Gong Hoon Bae (KEPCO Nuclear Fuel)*
- 1122 Evaluation of Xenon Induced Reactivity Insertion Allowance for Control Rod Withdrawal Accident Analysis in Soluble Boron-Free Innovative SMR Core—*Seunghwan Jun (KEPCO Nuclear Fuel), Bum Hee Jo (KEPCO Nuclear Fuel), Hae Chan Lee (KEPCO Nuclear Fuel)*

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- 1132 Beryllium Reflector Experiment Effects on High Flux Isotope Reactor Performance Metrics—*D. Chandler (ORNL)*
- 1136 Preliminary Analysis of Low-Enriched Uranium (LEU) Fuel Performance in the MIT Reactor Fission Converter Experimental Facility—*Caroline Sears (MIT), Jiankai Yu (MIT), Lin-Wen Hu (MIT), Benoit Forget (MIT), Kyle Anderson (ANL), Valerio Mascolino (ANL), Erik H. Wilson (ANL)*
- 1140 SCALE Inventory and Reactivity Analysis as Part of the Hermes 2021 PSAR Review—*Friederike Bostelmann (ORNL), Ben Betzler (Radiant), Donny Hartanto (ORNL), William A. Wieselquist (ORNL)*
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