

Nuclear Science and Engineering

VOLUME 189 · NUMBER 1 · JANUARY 2018

Contents

TECHNICAL PAPERS

- 1 Energy Dependent Transport Model of the Neutron Number Probability Distribution in a Subcritical Multiplying Assembly
J. E. M. Saxby, Anil K. Prinja, M. D. Eaton

- 26 Acceleration and Real Variance Reduction in Continuous-Energy Monte Carlo Whole-Core Calculation via p-CMFD Feedback
YuGwon Jo, Nam Zin Cho

- 41 Diffusion-Based Finite Element Method to Estimate the Reactivity Changes due to Core Deformation in an SFR
Woong Heo, Yonghee Kim

- 56 Development, Automation, and Validation of a Numerical Methodology to Assess the TOP Onset for the RIA CABRI Experiments
L. Pantera, P. Querre

- 69 Thermomechanical Assessment of Fuel Rod Cladding Made of Zirconium Alloy and Silicon Carbide Material During Reactivity-Initiated Accident
David Halabuk, Tomas Navrat

- 82 Predicting Large Deflections of Multiplate Fuel Elements Using a Monolithic FSI Approach
Franklin G. Curtis, James D. Freels, Kivanc Ekici

TECHNICAL NOTE

- 93 Lead Void Reactivity Worth in Two Critical Assembly Cores with Differing Uranium Enrichments
M. Fukushima, J. Goda, J. Bounds, T. Cutler, T. Grove, J. Hutchinson, M. James, G. McKenzie, R. Sanchez, A. Oizumi, H. Iwamoto, K. Tsujimoto