Sebastian Schunert

List of Publications by Year
in descending order

25 papers	495 citations	12 h-index
		759233
36 all docs	36 docs citations	36 times ranked

21 g-index
713466
327 citing authors

#	ARTICLE	IF	CITATIONS
1	Multischeme equivalence procedure for neutron transport finite element methods. Annals of Nuclear Energy, 2022, 166, 108712.	1.8	1
2	Two-step neutronics calculations with Shift and Griffin for advanced reactor systems. Annals of Nuclear Energy, 2022, 173, 109131.	1.8	5
3	IMPROVEMENTS TO THE MODELING OF THE TREAT REACTOR AND EXPERIMENTS. EPJ Web of Conferences, 2021, 247, 06025.	0.3	1
4	Pronghorn: A Multidimensional Coarse-Mesh Application for Advanced Reactor Thermal Hydraulics. Nuclear Technology, 2021, 207, 1015-1046.	1.2	30
5	Rattlesnake: A MOOSE-Based Multiphysics Multischeme Radiation Transport Application. Nuclear Technology, 2021, 207, 1047-1072.	1.2	30
6	Multiscale thermal-hydraulic modeling of the pebble bed fluoride-salt-cooled high-temperature reactor. Annals of Nuclear Energy, 2021, 154, 107968.	1.8	14
7	Evolution of microstructures in radiation fields using a coupled binary-collision Monte Carlo phase field approach. Computational Materials Science, 2021, 192, 110321.	3.0	5
8	Coupled Multiphysics Simulations of Heat Pipe Microreactors Using DireWolf. Nuclear Technology, 2021, 207, 1142-1162.	1.2	30
9	A workflow leveraging MOOSE transient multiphysics simulations to evaluate the impact of thermophysical property uncertainties on molten-salt reactors. Annals of Nuclear Energy, 2021, 163, 108546.	1.8	7
10	PBMR-400 BENCHMARK SOLUTION OF EXERCISE 1 AND 2 USING THE MOOSE BASED APPLICATIONS: MAMMOTH, PRONGHORN. EPJ Web of Conferences, 2021, 247, 06020.	0.3	5
11	Validation of the Griffin application for TREAT transient modeling and simulation. Nuclear Engineering and Design, 2021, 385, 111478.	1.7	9
12	Impact of grain size on performance degradation of TREAT LEU. Annals of Nuclear Energy, 2020, 139, 107294.	1.8	0
13	Hybrid super homogenization and discontinuity factor method for continuous finite element diffusion. Annals of Nuclear Energy, 2019, 128, 443-454.	1.8	18
14	Control rod treatment for FEM based radiation transport methods. Annals of Nuclear Energy, 2019, 127, 293-302.	1.8	15
15	A Coupled Multiscale Approach to TREAT LEU Feedback Modeling Using a Binary-Collision Monte-Carloâ€"Informed Heat Source. Nuclear Science and Engineering, 2019, 193, 368-387.	1.1	5
16	A fully coupled twoâ€‐level Schwarz preconditioner based on smoothed aggregation for the transient multigroup neutron diffusion equations. Numerical Linear Algebra With Applications, 2018, 25, e2162.	1.6	9
17	A Newton solution for the Superhomogenization method: The PJFNK-SPH. Annals of Nuclear Energy, 2018, 111, 579-594.	1.8	21
18	A flexible nonlinear diffusion acceleration method for the S transport equations discretized with discontinuous finite elements. Journal of Computational Physics, 2017, 338, 107-136.	3.8	15

#	Article	IF	Citations
19	Hybrid PN-SN with Lagrange multiplier and upwinding for the multiscale transport capability in Rattlesnake. Progress in Nuclear Energy, 2017, 101, 381-393.	2.9	21
20	Interpretation of energy deposition data from historical operation of the transient test facility (TREAT). Nuclear Engineering and Design, 2017, 322, 504-521.	1.7	13
21	Comparison of Spatial Discretization Methods for Solving the SN Equations Using a Three-Dimensional Method of Manufactured Solutions Benchmark Suite with Escalating Order of Nonsmoothness. Nuclear Science and Engineering, 2015, 180, 1-29.	1.1	11
22	A new mathematical adjoint for the modified SAAF-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si28.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mi>S</mml:mi></mml:mrow><mml:mrow><mml:mi>N</mml:mi></mm equations. Annals of Nuclear Energy, 2015, 75, 340-352.	1.8	14
23	Physics-based multiscale coupling for full core nuclear reactor simulation. Annals of Nuclear Energy, 2015, 84, 45-54.	1.8	184
24	Using the Cartesian Discrete Ordinates Code DORT for Assembly-Level Calculations. Nuclear Science and Engineering, 2013, 173, 233-258.	1.1	1
25	Nuclear Thermal Propulsion. , 0, , .		1