

2021 SCALE Users' Group Workshop

Wednesday-Friday, August 4-6, 2021

Presented Virtually from Oak Ridge National Laboratory

Agenda as of 6/09/2021

Event contact	Germina Ilas ilasg@ornl.gov Will Wieselquist wieselquistwa@ornl.gov
Event /Time	Lead
Wednesday, August 4, 2021	
Introductions [8:00–8:10 am]	Germina Ilas (ORNL)
Welcome [8:10–8:20 am]	Jeremy Busby (ORNL)
Technical Session [8:20–10:00 am] <u>SCALE 6.3.0 Highlights and Applications</u> • Overview of SCALE 6.3 Release (Wieselquist) • What's New in Nuclear Data for SCALE 6.3 (Holcomb) • New SCALE Documentation (Wieselquist) • Status of Shift for NCS Applications in SCALE 6.3 (Marshall) • Demonstration of New Interpolation/Archival Capabilities in SCALE 7.0 (Skutnik)	Will Wieselquist (ORNL) Andrew Holcomb (ORNL) B.J. Marshall (ORNL) Steve Skutnik (ORNL)
Break [10:00–10:15 am]	
Tutorial Session [10:15 am–12:00 pm] <u>Frequent Fulcrum Functions: The Basics of SCALE's Graphical User Interface</u>	Rob Lefebvre (ORNL)
Technical Session [10:15 am–12:00 pm] <u>Non-LWR Analysis with SCALE 6.3</u> • Pebble Fuel Source Term Generation (Skutnik) • HALEU/ATF/HBU (Wieselquist) • Cross-Section Processing for non-LWR (Kim) • Advanced Reactors Modeling (HPR, MSRE, FHR) (Wieselquist) • Horizontal Split Table Conceptual Design for Validation of Nuclear Data used in Advanced Reactors (Dupont)	Steve Skutnik (ORNL) Will Wieselquist (ORNL) Kang-Seog Kim (ORNL) Mathieu Dupont (ORNL)

Event /Time	Lead
Wednesday, August 4, 2021	
Lunch Break [12:00–1:00 pm]	
Technical Session [1:00–3:00 pm] <u>Best SCALE Model Contest</u> • Rike Bostelmann (ORNL) • Matt Jessee (ORNL) • Erik Walker (ORNL) • Peter Wolniewicz (SKB AB)	Rike Bostelmann (ORNL) Matt Jessee (ORNL) Erik Walker (ORNL) Peter Wolniewicz (SKB AB)
Break [3:00–3:10 pm]	
Technical Session [3:10–5:00 pm] <u>SCALE Validation</u> • Code Validation -- A Critical Step for Ensuring Criticality Safety (Li) • Predicting the Bias in Calculations of Spent Nuclear Fuel Characteristics (Shama) • SCALE 6.2.4 Validation: Nuclear Criticality Safety (Greene) • SCALE 6.2.4 Validation: Radiation Shielding (Celik) • SCALE 6.2.4 Validation: Reactor Physics (Ilas)	Zhian Li (NRC) Ahmed Shama (NAGRA) Travis Greene (ORNL) Cihangir Celik (ORNL) Germina Ilas (ORNL) Justin Clarity (ORNL) Mathieu Dupont (ORNL)
Tutorial Session [3:10–5:00 pm] <u>Sensitivity Uncertainty Analysis of HALEU/HBU Fuel using SAMPLER</u>	Ugur Merturek (ORNL) Rike Bostelmann (ORNL) Andrew Holcomb (ORNL)
Tutorial Session [3:10–5:00 pm] <u>SCALE Modeling of the Fast Spectrum Heat Pipe Reactor</u>	Erik Walker (ORNL) Alex Shaw (ORNL)

Event	Lead
Thursday, August 5, 2021	
Technical Session [8:00 am–12:00 pm] <u>Best Practices for SCALE Modeling & Simulation</u> • Inner Array Boundary in KENO (Clarity) • Calculating the Delayed Neutron Fraction (β_{eff}) with the SCALE Prompt Fission Neutron Spectrum (Shaw) • ORIGIN Reactor Libraries Generation (Hiscox) • How to Install and Verify SCALE with Focus on SCALE 6.3.0 (Hart) • Demonstration: Polaris Depletion in UNF-ST&DARDS (Clarity) • Polaris (Jessee) • Title TBD (Bznuni)	Justin Clarity (ORNL) Alex Shaw (ORNL) Briana Hiscox (ORNL) Shane Hart (ORNL) Matt Jessee (ORNL) Surik Bznuni (Nuclear and Radiation Safety Center)
Tutorial Session [8:00–10:00 am] <u>Polaris Lattice Physics Modeling for ATF Designs</u>	Matt Jessee (ORNL) Ugur Mertuyurek (ORNL)
Break [10:00–10:10 am]	
Tutorial Session [10:10 am–12:00 pm] <u>Source Term Generation for TRISO Fuel Systems</u>	Steve Skutnik (ORNL) Rike Bostelmann (ORNL) Will Wieselquist (ORNL)
Lunch Break [12:00–1:00 pm]	
Technical Session [1:00–5:00 pm] <u>How I use SCALE for my Work? (SCALE Open Mic)</u> • Antonio Jiménez-Carrascosa • Antonella Labarile • Josh Peterson-Droogh	Antonio Jiménez-Carrascosa (Universidad Politécnica de Madrid) Antonella Labarile (Universitat Politècnica de València) Josh Peterson-Droogh (INL)
Tutorial Session [1:00–2:50 pm] <u>Criticality Safety Validation using VADER</u>	Justin Clarity (ORNL) Shane Hart (ORNL) B. J. Marshall (ORNL)
Break [2:50–3:00 pm]	
Tutorial Session [3:00–5:00 pm] <u>Activation Analysis with ORIGIN/MAVRIC for Advanced Reactors</u>	Cihangir Celik (ORNL) Steve Skutnik (ORNL)

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Event	Lead
Friday, August 6, 2021	
Tutorial Session [8:00–9:50 am] <u>SCALE Utilities for Nuclear Data Interrogation, Comparison, and Visualization</u>	Andrew Holcomb (ORNL) Doro Wiarda (ORNL) Rike Bostelmann (ORNL)
Break [9:50–10:00 am]	
Tutorial Session [10:00 am–12:00 pm] <u>LWR Decay Heat Analysis with SCALE</u>	Germina Ilas (ORNL) Joseph Burns (ORNL)
Tutorial Session [10:00 am–12:00 pm] <u>From SCALE to Source Term: Exporting SCALE Inventories to MELCOR</u>	Steve Skutnik (ORNL) Erik Walker (ORNL)
Lunch Break [12:00–1:00 pm]	
Closing Session [1:00–3:00 pm]	Will Wieselquist (ORNL) Germina Ilas (ORNL)