

2021 SCALE Users' Group Workshop Wednesday-Friday, August 4-6, 2021 Presented Virtually from Oak Ridge National Laboratory

Agenda as of 8/4/2021

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> <ul style="list-style-type: none"> • Overview of SCALE 6.3 (Wieselquist) • What's New in Nuclear Data for SCALE 6.3 (Holcomb) • SCALE New Documentation Strategy (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> <ul style="list-style-type: none"> • Pebble Fuel Source Term Generation (Skutnik) • Activities in HALEU//HBU/ATF (Wieselquist) • Multigroup Cross Section Processing Capability of the SCALE-6.3 XSPROC for Non-LWR analysis (Kim) • Non-LWR SCALE Activities (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)	

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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> <ul style="list-style-type: none"> • Rike Bostelmann (ORNL) • Cihangir Celik (ORNL) • Mathieu Dupont (ORNL) • Matt Jessee (ORNL) • Erik Walker (ORNL) • Peter Wolniewicz (SKB AB) 	Rike Bostelmann (ORNL) Cihangir Celik (ORNL) Mathieu Dupont (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> <ul style="list-style-type: none"> • Code Validation -- A Critical Step for Ensuring Criticality Safety (Li) • Predicting the Bias in Calculations of Spent Nuclear Fuel Characteristics (Shama) • SCALE Validation for 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)
Tutorial Session [3:10–5:00 pm] <u>Sensitivity Uncertainty Analysis of HALEU/HBU Fuel using SAMPLER</u>	Ugur Mertuyrek (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	
<p>Technical Session [8:00 am–12:00 pm] <u>Best Practices for SCALE Modeling & Simulation</u></p> <ul style="list-style-type: none"> Using the “Inner” Array Boundary in KENO-VI (Clarity) Calculating the Delayed Neutron Fraction (β_{eff}) with the SCALE Prompt Fission Neutron Spectrum (Shaw) ORIGEN Reactor Libraries Generation (Hiscox) How to Install and Verify SCALE with Focus on SCALE 6.3.0 (Hart) Polaris Depletion Calculations using the UNF-ST&DARDS Detailed Analysis Sequence (Clarity) LWR Activation Analysis with Polaris and TRITON (Jessee) 	<p>Justin Clarity (ORNL) Alex Shaw (ORNL) Briana Hiscox (ORNL) Shane Hart (ORNL) Matt Jessee (ORNL)</p>
<p>Tutorial Session [8:00–10:00 am] <u>Polaris Lattice Physics Modeling for ATF Designs</u></p>	<p>Matt Jessee (ORNL) Ugur Mertuyrek (ORNL)</p>
<p>Break [10:00–10:10 am]</p>	
<p>Tutorial Session [10:10 am–12:00 pm] <u>Source Term Generation for TRISO Fuel Systems</u></p>	<p>Steve Skutnik (ORNL) Rike Bostelmann (ORNL) Will Wieselquist (ORNL)</p>
<p>Lunch Break [12:00–1:00 pm]</p>	
<p>Technical Session [1:00–2:50 pm] <u>How I use SCALE for my Work? (SCALE Open Mic)</u></p> <ul style="list-style-type: none"> Jin Whan Bae Antonio Jiménez-Carrascosa Robert Kile Josh Peterson-Droogh Lisa Reed 	<p>Jin Whan Bae (ORNL) Antonio Jiménez-Carrascosa (Universidad Politécnica de Madrid) Robert Kile (University of Tennessee) Josh Peterson-Droogh (INL) Lisa Reed (GA Tech)</p>
<p>Tutorial Session [1:00–2:50 pm] <u>Criticality Safety Validation using VADER</u></p>	<p>Justin Clarity (ORNL) Shane Hart (ORNL) B. J. Marshall (ORNL)</p>
<p>Break [2:50–3:00 pm]</p>	

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Thursday, August 5, 2021	
Tutorial Session [3:00–5:00 pm] <u>Activation Analysis with ORIGEN/MAVRIC for Advanced Reactors</u>	Cihangir Celik (ORNL) Steve Skutnik (ORNL)
Afternoon Q&As with SCALE Developers [3:00–5:00 pm]	Will Wieselquist (ORNL)

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) Rike Bostelmann (ORNL)
Lunch Break [12:00–1:00 pm]	
Closing Session [1:00–3:00 pm]	Will Wieselquist (ORNL) Germina Ilas (ORNL)