

2020 SCALE Users' Group Workshop Monday – Wednesday, July 27–29, 2020 Presented Virtually from Oak Ridge National Laboratory

Agenda as of 7/29/2020

Event contact	Germina Ilas ilasg@ornl.gov Will Wieselquist wieselquiswa@ornl.gov	
Time	Event	Lead
Monday, July 27, 2020		
9:00–9:10 am	Introductions	Germina Ilas (ORNL)
9:10–9:20 am	Welcome	Jeremy Busby (ORNL)
9:20–9:45 am	The NRC: Safety and SCALE	Don Algama (NRC)
9:45–10:10 am	DOE/NNSA Nuclear Criticality Safety Program – Brief Overview	Doug Bowen (ORNL)
10:10–10:35 am	SCALE in 2021 and Beyond	Will Wieselquist (ORNL)
10:35–11:00 am	Recent R&D Activities at NCSU using SCALE Tools	Kostadin Ivanov (NCSU) Jason Hou (NCSU)
11:00–11:25 am	Transformational Challenge Reactor: Agile Core Design with Advanced Modeling and Simulation	Ben Betzler (ORNL) Brian Ade (ORNL)
11:25 am–12:00 pm	On the Path to Exascale: Reactor Neutronics in ECP	Tom Evans (ORNL)
12:00–1:00 pm	Lunch Break	

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Event	Lead
Monday, July 27, 2020	
Tutorial Session [1:00–3:00 pm] <u>Frequent Fulcrum Functions: The Basics of SCALE's Graphical User Interface</u>	Rob Lefebvre (ORNL)
Technical Session [1:00–3:00 pm] <u>Introduction to SCALE Methodologies</u> <ul style="list-style-type: none"> • Introduction to Resonance Self-Shielding Methods in SCALE: XSPROC and ESSM (Kim) • Covariance & Other Nuclear Data in SCALE 6.3 (Holcomb) • Similarity Assessment with TSUNAMI (Marshall) • Sampler UQ (Mertyurek, Lefebvre) • CADIS Variance Reduction with MAVRIC (Celik) • ORIGEN Reactor Libraries (Ilas) 	Kang-Seog Kim (ORNL) Andrew Holcomb (ORNL) B. J. Marshall (ORNL) Ugur Mertyurek (ORNL) Rob Lefebvre (ORNL) Cihangir Celik (ORNL) Germina Ilas (ORNL)
Tutorial Session [3:00–5:00 pm] <u>Generation of SCALE Multigroup Libraries for Advanced Reactors using AMPX</u>	Doro Wiarda (ORNL) Andrew Holcomb (ORNL) Rike Bostelmann (ORNL)
Technical Session [3:00–5:00 pm] <u>Best SCALE Model Contest</u>	
Tuesday, July 28, 2020	
Tutorial Session [8:00–10:00 am] <u>Generating Light Water Reactor ORIGEN Libraries with Polaris</u>	Matt Jessee (ORNL) Ugur Mertyurek (ORNL)

Event	Lead
Tuesday, July 28, 2020	
<p>Technical Session [8:00 am–12:00 pm] <u>Best Practices for SCALE Modeling & Simulation</u></p> <ul style="list-style-type: none"> • Assessment of Polaris/GenPMAXS/PARCS Depletion using VERA-CS (Bielen) • Advanced Reactor Modeling with TRITON-NEWT (Bostelmann) • Assessing Convergence in keff Calculations (Clarity) • Use of Direct Perturbation Calculations to Confirm the Accuracy of TSUNAMI-3D (Greene) • Back of the Envelope PWR Studies: Increased Enrichment and Burnup Using SCALE Tools (Hall) • Polaris Cross-Section Generation for Core analysis. UPV Experience (Labarile) • Plotting Flux Spectra from KENO (Marshall) • Doing Depletion Diligently: Best Practices for Depletion Calculations with ORIGEN (Skutnik) • Revised guidance of Polaris BWR XS generation for PARCS (Ward) 	<p>Andrew Bielen (NRC) Rike Bostelmann (ORNL) Justin Clarity (ORNL) Travis Greene (ORNL) Bob Hall (ORNL) Antonella Labarile ((Universitat Politècnica de València) B.J. Marshall (ORNL) Steve Skutnik (ORNL) Andrew Ward (Univ. of Michigan)</p>
<p>Tutorial Session [10:00 am–12:00 pm] <u>Advanced User Interface Capabilities</u></p>	<p>Rob Lefebvre (ORNL)</p>
<p>Lunch Presentation [12:00–1:00 pm] <u>Spent Nuclear Fuel Systems Analyses Using UNF-ST&DARDS and SCALE</u></p>	<p>Justin Clarity</p>
<p>Tutorial Session [1:00–3:00 pm] <u>Crossing the Streams – Sampler and TemplateEngine</u></p>	<p>B. J. Marshall (ORNL) Rob Lefebvre (ORNL)</p>
<p>Technical Session [1:00–5:00 pm] <u>How I use SCALE for my Work? (SCALE Open Mic)</u></p>	<p>Brad Rearden (X-energy) Joey Burns (ORNL) Pedro Vicente-Valdez (UC Berkeley) Travis Greene (ORNL) Robert Hayes (NCSU) Briana Hiscox (ORNL) Josh Peterson-Droogh (INL) Jin Whan Bae (ORNL) Mike Smith (ORNL) William Walters (Penn State) Kevin Govers (FANC, Belgium)</p>

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Event	Lead
Tuesday, July 28, 2020	
Tutorial Session [3:00–5:00 pm] <u>Activation Analysis with ORIGEN/MAVRIC for Advanced Reactors</u>	Cihangir Celik (ORNL) Steve Skutnik (ORNL)

Wednesday, July 29, 2020	
Tutorial Session [8:00–10:00 am] <u>SCALE Utilities for Nuclear Data Interrogation, Comparison, and Visualization</u>	Andrew Holcomb (ORNL) Doro Wiarda (ORNL) Rike Bostelmann (ORNL) Shane Hart (ORNL)
Tutorial Session [10:00 am–12:00 pm] <u>Advanced Reactor Source Terms for Safeguards Application</u>	Germina Ilas (ORNL) Rike Bostelmann (ORNL)
Lunch Break [12:00–1:00 pm]	
Closing Session [1:00-3:00 pm]	Will Wieselquist (ORNL) Germina Ilas (ORNL)