

## Monday, November 6, 2017

16:00 - 17:30	<b>Registration</b>
17:30 - 19:00	<b>Welcome session and refreshments</b> <ol style="list-style-type: none"> <li><i>Welcome on behalf of University of Florida</i></li> <li><i>Jaakko Leppänen (VTT) - Greetings from the Serpent developer team.</i></li> </ol>

## Tuesday, November 7, 2017

9:00 - 10:00	<b>Methods</b> <ol style="list-style-type: none"> <li><i>Jaakko Leppänen (VTT) - Current status and future plans for Serpent 2</i></li> <li><i>Toni Kaltiaisenaho (VTT) - Recent development in Serpent photon transport mode</i></li> </ol>
10:00 - 10:30	<b>Coffee break</b>
10:30 - 12:00	<b>Methods</b> <ol style="list-style-type: none"> <li><i>Jaakko Leppänen (VTT) - Fun stuff with the built-in response matrix solver</i></li> <li><i>Stefano Terlizzi (Georgia Tech.) - Non-ideal convergence of fission matrix fundamental eigen-pair in Monte Carlo calculations</i></li> <li><i>Mikolaj Kowalski (University of Cambridge) - Investigating Variable Fidelity Monte Carlo with Serpent Fixed Source Mode</i></li> </ol>
12:00 - 13:30	<b>Lunch</b>
13:30 - 15:00	<b>Reactors</b> <ol style="list-style-type: none"> <li><i>Andrew Johnson (Georgia Tech.) - Full Core Power and Isotopic Oscillations with Various Depletion Schemes</i></li> <li><i>Riku Tuominen (VTT) - Modelling SEALER with Serpent and OpenFOAM</i></li> <li><i>Dan Kotlyar (Georgia Tech.) - Serpent application in studying a nuclear thermal propulsion engine</i></li> </ol>
15:00 - 15:30	<b>Coffee break</b>
15:30 - 17:00	<b>Reactors</b> <ol style="list-style-type: none"> <li><i>Emil Fridman (HZDR) - Modeling of Phenix End-of-Life experiments with Serpent-DYN3D</i></li> <li><i>Sourena Golesorkhi (CNL) - Reactor Physics Modelling using Serpent at CNL</i></li> <li><i>Nicholas Smith (Southern Company Services) - Overview of MSR projects</i></li> </ol>

## Wednesday, November 8, 2017

9:00 - 10:00	<b>Sensitivity and uncertainty analysis</b> <ol style="list-style-type: none"> <li>1. Ville Valtavirta (VTT) - <i>Sensitivity/perturbation calculations with Serpent 2.1.29</i></li> <li>2. Paul Cosgrove (University of Cambridge) - <i>Perturbation-based coupling of Monte Carlo and Burn-up for multiple burnable regions</i></li> </ol>
10:00 - 10:30	<b>Coffee break</b>
10:30 - 12:00	<b>Sensitivity and uncertainty analysis</b> <ol style="list-style-type: none"> <li>1. Una Davies (University of Cambridge) - <i>Sensitivity analysis of Thorium-MOX fuel in ABWRs</i></li> <li>2. Daniel Siefman - <i>Effects of sensitivities' statistical uncertainties on calculated parameters</i></li> <li>3. Dirceu da Cruz (NRG) - <i>Uncertainty due to nuclear data for an MTR fuel element</i></li> </ol>
12:00 - 13:30	<b>Lunch</b>
13:30 - 15:00	<b>Multi-physics</b> <ol style="list-style-type: none"> <li>1. Emil Fridman (HZDR) - <i>Nuclear data uncertainty quantification for FREYA fast critical experiments</i></li> <li>2. Ville Valtavirta (VTT) - <i>Multiphysics calculations with Serpent 2.1.29</i></li> <li>3. Kyle Ramey (Georgia Tech.) - <i>Numerical Artifacts in On-the-Fly Doppler Broadening Near Reference Temperatures</i></li> </ol>
15:00 - 15:30	<b>Coffee break</b>
15:30 - 17:00	<b>Multi-physics / Demo</b> <ol style="list-style-type: none"> <li>1. Mohammad Hessian (RWTH University/Research Centre Juelich) - <i>Delayed Neutron Treatment in Dynamic Mode of SERPENT 2</i></li> <li>2. Andrew Johnson (Georgia Tech.) - <i>Python tools to analyze Serpent output</i></li> <li>3. Jaakko Leppänen (VTT) - <i>Practical demonstration of useful but poorly documented features in Serpent 2</i></li> </ol>
19:30	<b>Social dinner at the Midtown Social</b>

## Thursday, November 9, 2017

9:00 - 10:00	<b>Session X</b>  Time slots for two additional presentations or option to start one hour later.
10:00 - 10:30	<b>Coffee break</b>
10:30 - 12:00	<b>Projects</b>  <ol style="list-style-type: none"><li>1. Riku Tuominen (VTT) - <i>Status of the Serpent criticality safety validation package</i></li><li>2. Frederick Gleicher (INL) - <i>Reactor modeling at INL</i></li><li>3. Emil Fridman (HZDR) - <i>Future applications of Serpent in the Euratom project ESFR-SMART</i></li></ol>
12:00 - 13:30	<b>Lunch</b>
13:30 - 15:00	<b>Reactors / Demo</b>  <ol style="list-style-type: none"><li>1. Emil Fridman (HZDR) - <i>Serpent solution of the Khmel'nitsky-2 benchmark: fresh core at HZP</i></li><li>2. Ville Valtavirta (VTT) - <i>Serpent Wiki</i></li></ol>
15:00 - 15:30	<b>Coffee break / Farewell</b>