

Monday, October 14, 2019

12:00-15:00	serpentTools Workshop (lunch is not provided)
15:00-16:30	Registration and Reception (food and drinks are provided)
16:30-18:00	Welcome session <ol style="list-style-type: none"> 1. Steven Biegalski (Georgia Tech) – NRE chairman Greetings 2. Dan Kotlyar (Georgia Tech) – Greetings from Georgia Tech 3. Jaakko Leppänen (VTT) – Greetings from the Serpent developer team

Tuesday, October 15, 2019

09:00-10:00	Technical session <ol style="list-style-type: none"> 1. Jaakko Leppänen (VTT) Current status and future development 2. Ville Valtavirta (VTT) Kraken - a Serpent based Finnish reactor analysis framework
10:00-10:30	Coffee break
10:30-11:30	Technical session <ol style="list-style-type: none"> 1. Riku Tuominen (VTT) Effect of energy deposition modelling in coupled steady state Monte Carlo neutronics/thermal hydraulics calculations 2. Manuel García (KIT) A Collision-based Domain Decomposition scheme for Serpent 2
11:30-12:00	Group photo
12:00-13:00	Lunch break
13:00-14:30	Technical session <ol style="list-style-type: none"> 1. Alex Valentine (UKAEA) UKAEA benchmarking of Serpent 2 Monte-Carlo code for fusion applications 2. Danila Roubtsov (Canadian Nuclear Laboratories) Serpent2 at CNL: ENDF/B-VIII.0 library ZED-2 benchmarks and Photonuclear Option 3. Alexander Wheeler (UTK) Documenting and demystifying online processing features of Serpent
14:30-15:00	Coffee break
15:00-16:30	Technical session <ol style="list-style-type: none"> 1. Coral Kazaroff (GT) Economic benefits of higher enriched assays for 24-month cycle length 2. Nader Satvat (Kairos Power) Kairos Power Advanced FHR Simulator with Burnup and Pebble Circulation 3. Naiki Kaffeidakis (GT) Computational design of an Ultra-Small Modular Reactor based on coupled Serpent sequences

Wednesday, October 16, 2019

09:00-10:00	Technical session <ol style="list-style-type: none"> 1. Marton Szogradi (VTT) SFR calculations with Serpent and Ants 2. Emil Fridman (HZDR) SA&UQ of Critical VENUS-F Cores with Serpent
10:00-10:30	Coffee break
10:30-12:00	Technical session <ol style="list-style-type: none"> 1. Emil Fridman (HZDR) Preliminary solution of OECD/NEA SFR-UAM benchmark with Serpent: fuel pin and sub-assembly 2. Andrew Johnson (GT) Coupled depletion analysis with Serpent 3. Stefano Terlizzi (GT) Prediction of T/H dependent Macroscopic cross-section for Coupled T/H
12:00-13:00	Lunch break
13:00-14:30	Technical session <ol style="list-style-type: none"> 1. Bojan Petrovic (GT) NEA FHR Benchmark Analyses Using SERPENT 2. Vedant Mehta (GT/LANL) Development of micro-reactors and needs for multiphysics code 3. Matthew Krecicki (GT) Nuclear Thermal Propulsion Engine Design using Serpent
14:30-15:00	Coffee break
15:00-17:00	Technical tour - Sustainable Thermal Systems Laboratory Two-phase flow, microchannel heat exchange, etc.

Thursday, October 17, 2019

09:00-10:00	Technical session <ol style="list-style-type: none"> Emil Fridman (HZDR) Modeling of the FFTF isothermal physics tests with Serpent and DYN3D Reed Herner (GT/ CSNR) Optimization of Pu-238 Production in the Advanced Test Reactor
10:00-10:30	Coffee break
10:30-12:00	Technical session <ol style="list-style-type: none"> Adam Rau (Penn State University) Applications of Serpent's Fission Matrix Capability Paul Cosgrove (University of Cambridge) Simple stable Monte Carlo and depletion Jim Wang (GT) CFD Analysis of NTP with Open-Foam
12:00-13:00	Lunch break
13:00-14:30	Technical session <ol style="list-style-type: none"> Vitor Silva (CDTN/CNEN) The use of Serpent at LTHN Jaakko Leppänen (VTT) Spent fuel characterization and source term (KÄRÄHDE project) Dan Kotlyar (GT) Concluding remarks
	Discussion
	Adjourn

Location: Georgia Tech Manufacturing Institute, 813 Ferst Drive, N.W., Atlanta, GA 30332-0560

Contact details: Dan Kotlyar,
Office phone: 404-385-5372, dan.kotlyar@me.gatech.edu

Sustainable Thermal Systems Laboratory: North Avenue Research Area, 505 Tech Way, Atlanta, GA 30318