OpenMC Online Course Agenda

25-28 April 2022 (10:00-14:00 (CDT time)/17:00-21:00 (CEST time))

OpenMC is a community-developed Monte Carlo neutron and photon transport simulation code. It is capable of performing fixed source, k-eigenvalue, and subcritical multiplication calculations on models built using either a constructive solid geometry or CAD representation. OpenMC supports both continuous-energy and multigroup transport. The continuous-energy particle interaction data is based on a native HDF5 format that can be generated from ACE files produced by NJOY. Parallelism is enabled via a hybrid MPI and OpenMP programming model.

https://docs.openmc.org/en/stable/

This 4-day interactive course will cover beginner and intermediate usage of OpenMC. Topics will include basic model definition, universes and repeated geometry, tallies and post-processing, source definitions, visualization, depletion, multigroup cross section generation, working with nuclear data, the C/C++ API and multiphysics, variance reduction, and CAD-based geometries. During the course, participants will have access to a pre-installed version of OpenMC on cloud-based servers that will allow them to carry out simulation and analysis directly in a web browser.

Maximum number of participants: 30

For any questions about this course, please reach out to Ms. Hedvig NAHON (hedvig.nahon@oecd-nea.org)