Contribution ID: **44** Type: **not specified**

Shielding benchmarks for Geant4 version 10

Wednesday, 30 April 2014 13:35 (25 minutes)

Geant4 is a toolkit for the simulation of the passage of particles through matter. To show its capability in the shielding area, we have submitted Geant4 results for the "Inter comparison Problems of Neutron Attenuation" to SATIF organizers since 2006. Version 10 is the latest and major update of Geant4 and is publicly available since December 2013. Because it is a major update, there are many new features, among which are the multi-threading migration and new physics models for users of shielding applications. The former impacts computing performance and the latter affects physics performance. In this presentation, we briefly explain the benefit of multi-threading and features of the new and improved physics models. We will also show new results of benchmarks proposed by the SATIF organizers, using several physics models and cross sections offered by Geant4.

Primary author: KOI, Tatsumi (SLAC National Accelerator Laboratory)

Presenter: KOI, Tatsumi (SLAC National Accelerator Laboratory)

Session Classification: Session 6. Code Benchmarking and Intercomparison, Convener: Robert Grove