Validation of Geant4 Hadronic Nucleus-Nucleus Cross-Sections

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Simulating nuclear cross-sections aids in a range of physics research areas such as accelerator experimentation and medical radiation physics. Currently, the Glauber-Gribov model is used for calculating nuclear reaction cross-section in Geant4. The goal of the project is firstly to benchmark this cross-section model within Geant4 against experimental data from the EXFOR database. However, significantly more experimental data is required for accurate benchmarking for some cross-section systems such as those involving unstable heavy ions. We will present the first results of the project at the 2018 Heavy Ion Accelerator Symposium conference.