Papers

Duct Streaming Studies for Superconducting TOKAMAK Device Building by Monte Carlo Simulation using Dump Technique

Seiichiro TANAKA, Koichi OKUNO and Atsuhiko SUKEGAWA

In order to design shielding structures for the new ducts of the Superconducting TOKAMAK device building, we are developing an evaluation method for dose distribution using the 3D radiation transport calculation code: PHITS. In this study, we attempted to improve the rational calculation method by evaluating neutron duct streaming using the PHITS dump technique. The result confirmed that the dump technique was a very effective method in terms of dispersion reduction and reduction of computation time for large-scale and complicated systems such as a nuclear fusion facility.