

Technical Meeting on the Compilation of Nuclear Data Experiments for Radiation Characterization

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Testing and verification of nuclear data with the GALILEE-1 processing code and the TRIPOLI-4 Monte Carlo code

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This work follows the MCNP - TRIPOLI-4 comparisons for criticality benchmarks using U5, U8, Pu9, for which comparisons were made between ENDF/B-VIII, JEFF-3.3, TENDL-17, TENDL-19 libraries. The study of shielding benchmarks shows differences between the libraries for different nuclei and indicates the importance of the scattering anisotropy. The new Fe56 evaluation of TENDL-21 provides a significant improvement in comparison to TENDL-19. Anisotropy plays a very important role for these configurations and we observe that the JEFF40T1 library with an Fe56 evaluation using LRF=7 in RRR highlights the importance of processing anisotropy during reconstruction.

In addition, examples will be presented on the influence of PTs in URR, on the TSL data in particular for ZrH and on the treatment of photonuclear reactions.

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