MCNP6 – A New Simulation Tool for FRIB Applications STEPAN
MASHNIK, XCP-3, LANL — During the last decade, we have developed at LANL
improved codes of the Cascade-Exciton Model (CEM) and of the Los Alamos ver-
sion of the Quark-Gluon String Model (LAQGSM) to describe reactions induced
by particles and nuclei. We have tested our CEM and LAQGSM codes against a
large variety of experimental data on particle-particle, particle-nucleus, and nucleus-
nucleus reactions and have compared their results with predictions by other models.
The latest versions of our codes, CEM03.02 and LAQGSM03.03, have been incorpo-
rated recently as event generators in MCNP6, the latest and most advanced LANL
transport code representing a merger of MCNP5 and MCNPX, which can be a useful
tool for FRIB simulations. Here, we present a brief description of CEM03.02 and
LAQGSM03.03 and several illustrative results by MCNP6 with our event generators
for both thin and thick targets of interest to FRIB.

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