# FLUKA – Geant4 comparison study

## Simons meeting progress report
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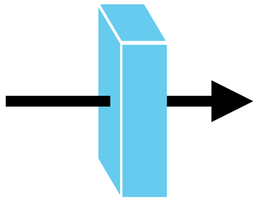
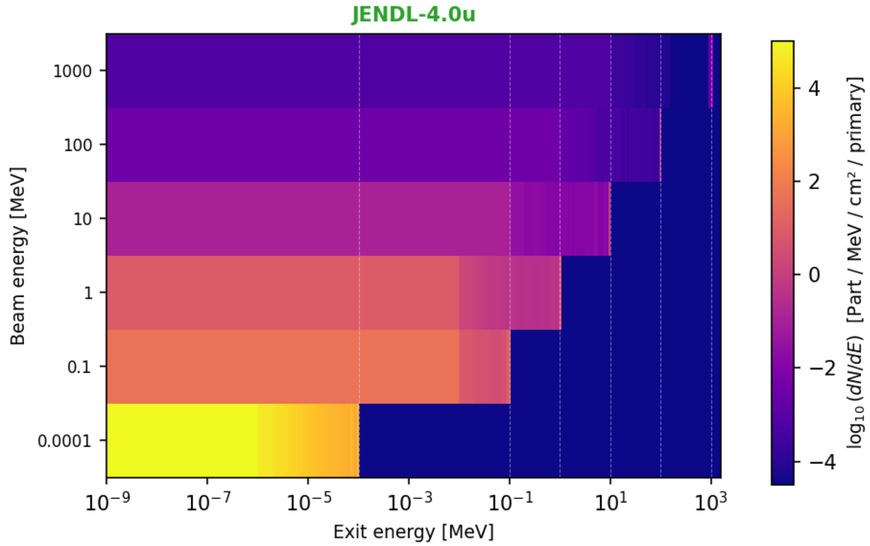
# Updates since last meeting

## *Neutron transmission measurements*

- Setup now apptainerized!
- Some preliminary comparisons of neutron transmission behavior between FLUKA NDLs
- Behavior ~as expected (higher energies pass through with thermal halo, lower energy largely stopped with thermalized transmission)
- JEFF (EU) shows distinct behavior → investigating differences from other NDLs






## *FLUKA at scale*

- Daniele has shared the repo for inputs + code for simulating BIB
- Iterating with the FLUKA folks—opportunities for close communication in coming weeks/months

## *Roadblocks + next steps*

- More detailed NDL comparison → would like to conclude
- Unpacking and follow up on Daniele's setup
- Tie-in with BIB slicing investigation

Neutron transmission through 1.75 cm borated polyethylene — nuclear data library comparison
$\rho = 0.95\,g/cm^3$, 5 wt% B, pencil beam, $5 \times 10^4$ primaries per point