

Characterising the shape of the beam at different positions in the beamline:

- Changed the lateral energy deposition mesh to a lateral surface flux mesh
- Ran the simulation for 1,000,000 events: this is a very long process. Meeting with Lawrence tomorrow to see how to use qsub.

Protons from G4GeneralParticleSource at (62.500 ± 0.082) MeV:

Gaussian, plane, circle, radius = 3 mm, sigma x = 0.0134 m, sigma y = 0.00362 m

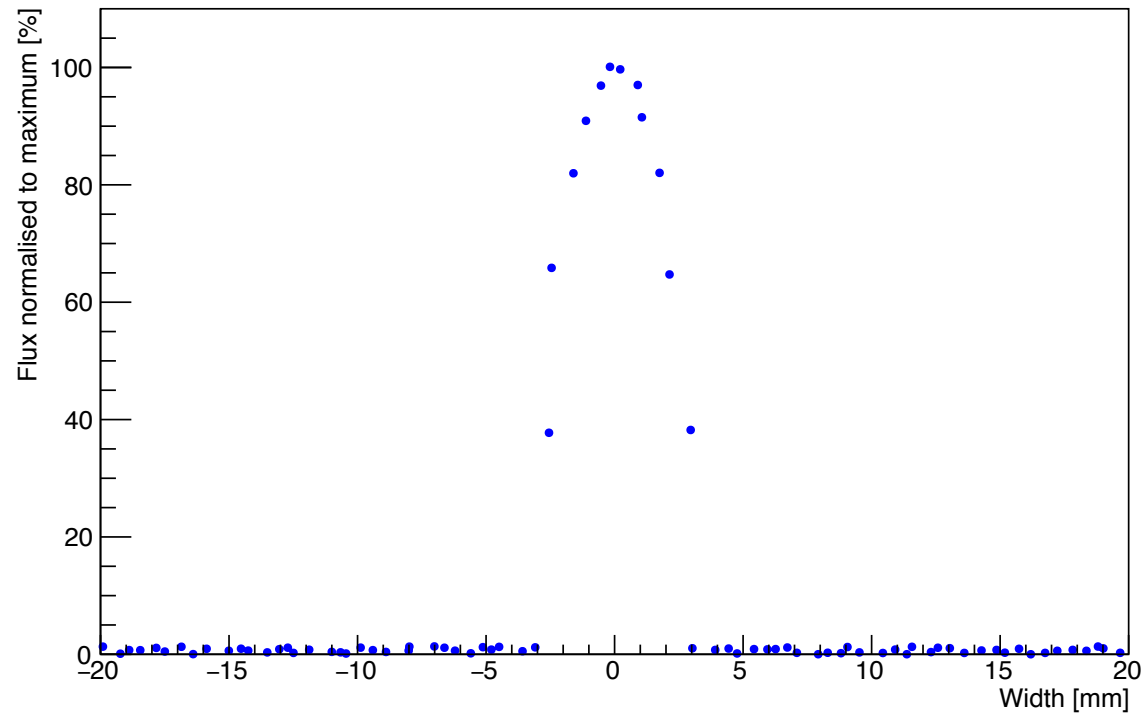
1,000,000 events

The above settings are from the Clatterbridge simulation.

Used lateral surface flux scoring meshes after each component in the first aluminium tube.

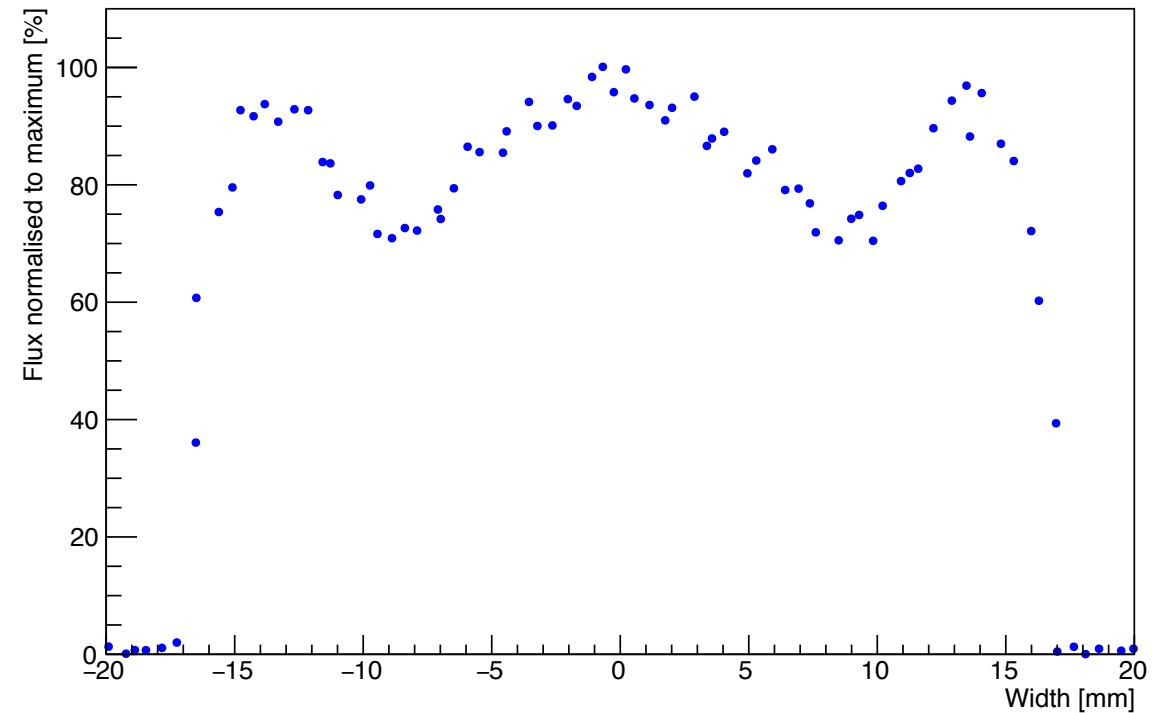
Source, mesh at $z = 1$ cm

Lateral flux deposition



Nozzle, mesh at $z = 175.9$ cm

Lateral flux deposition



Next: once simulations run using qsub, get shape of the beam after each component.