“New” source routine hands on

A first example how to use the “new” source routine

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Case 1

- Electron beam
- Beam origin in (10., 0., 10.)
- Beam directed along the z axis
- Beam momentum uniformly distributed between 105 and 135 MeV
- Divergence in x = 180 mrad ; divergence in y = 90 mrad

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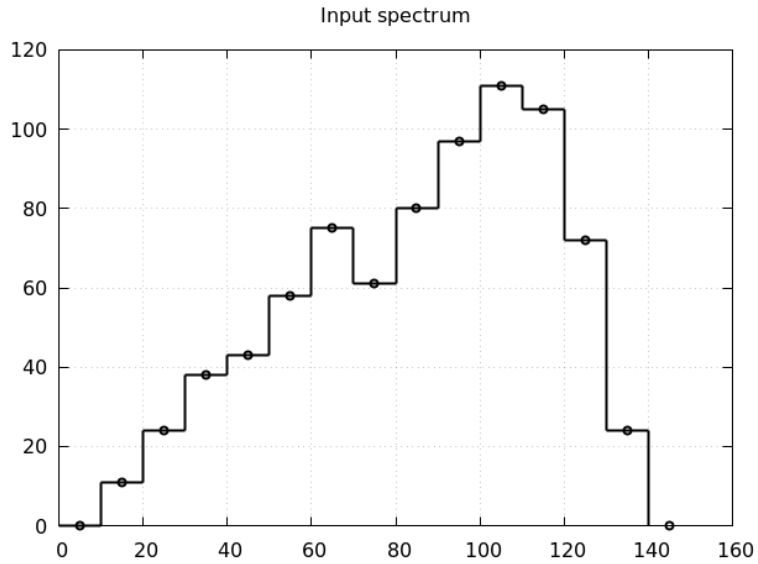

Case 2

- Electron beam
- Beam origin in (10., 0., 10.)
- Beam directed at 45 degrees between x and z axes
- Divergence in x = 180 mrad ; divergence in y = 90 mrad
- Beam momentum sampled from an histogram (between 0 and 150 MeV)

  histogram is given in the files **`histo.txt`** and **`histo.png`**

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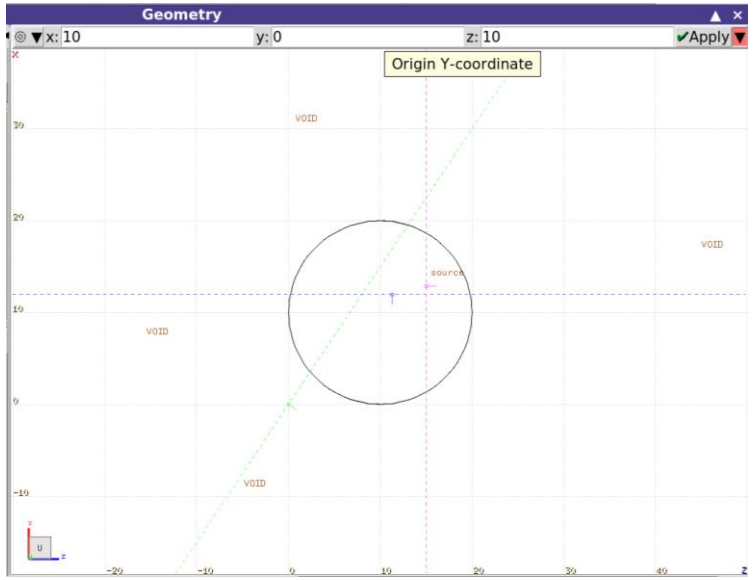

Geometry

- Everything is in vacuum
- An ideal sphere (R=10cm) enclose

  the beam origin located in (10., 0., 10.)

Scoring

- **`USRBIN`** scoring of **`ALL-PART`** fluence (just to see where the beam goes)
- **`USRBDX`** scoring of **`ALL-PART`** outgoing the ideal sphere

FLUKA