ALLEGRO ECAL barrel migration to ddsim: validation

FCC Detector Full Sim Working Meeting

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Simulation details

- ddsim
  - SIM.gun.direction = (1, 0, 0)
  - SIM.physics.rangecut = 0.1
  - use the sensitive detector action SIM.action.mapActions['MyName'] = “Geant4TrackerAction"
  - Disable filters, in the steering file: SIM.filter.calo = “" ;SIM.filter.filters = “" ;SIM.filter.tracker = “”
  - --compactFile $K4GEO/FCCee/ALLEGRO/compact/ALLEGRO_01_v03/ALLEGRO_01_v03.xml
- k4SimGeant4
  - pgun.PhiMin = 0 ; pgun.PhiMax = 0; pgun.ThetaMin = 90 * pi / 180.; pgun.ThetaMax = 90 * pi / 180.
  - geantservice.g4PreInitCommands += ["/run/setCut 0.1 mm”]
  - ECalBarrel.xml :

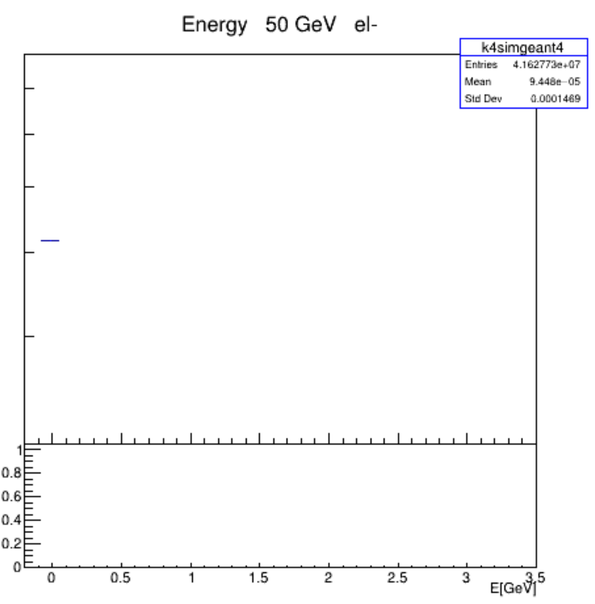
<sensitive type="SimpleCalorimeterSD"/> -> <sensitive type=“SimpleTrackerSD"/> -> not working

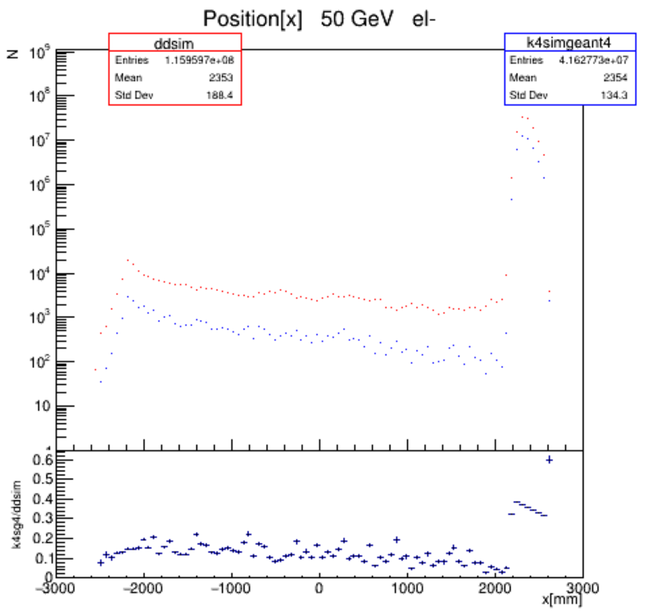
- Number of events

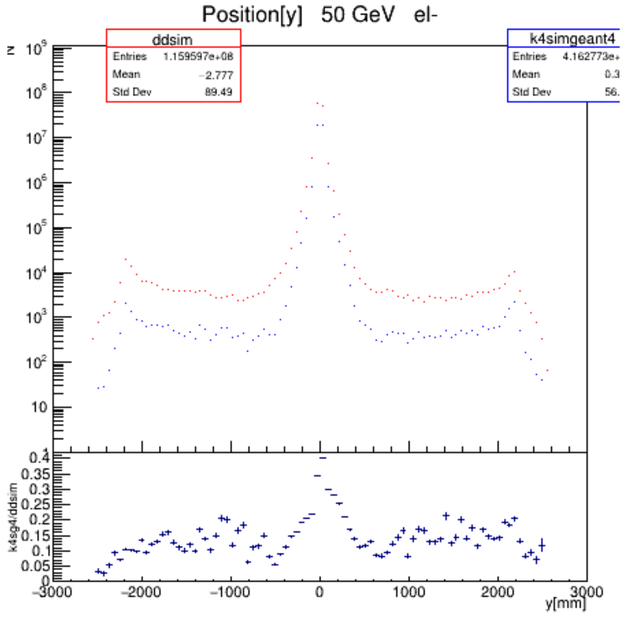
  electron - 50GeV - 500

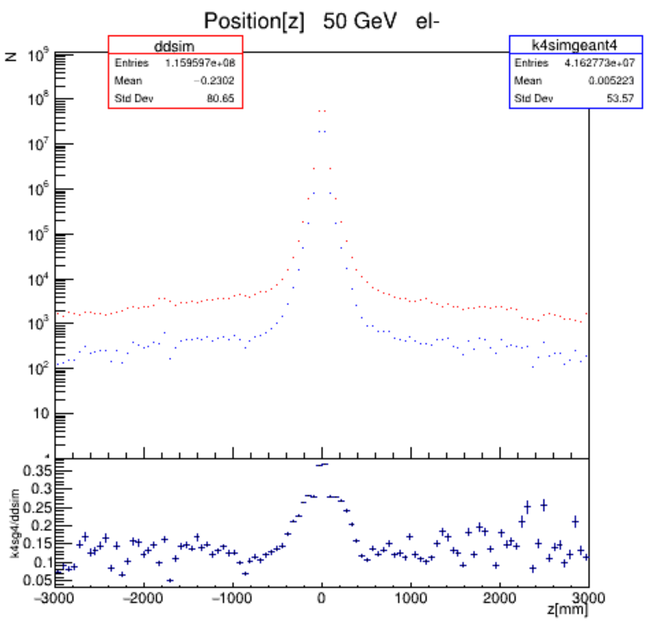
electron 50GeV

ECAL HITS









ddsim $1.15 \cdot 10^8$

k4SimGeant4 $4.16 \cdot 10^7$