

Update on source (TB) setup simulation

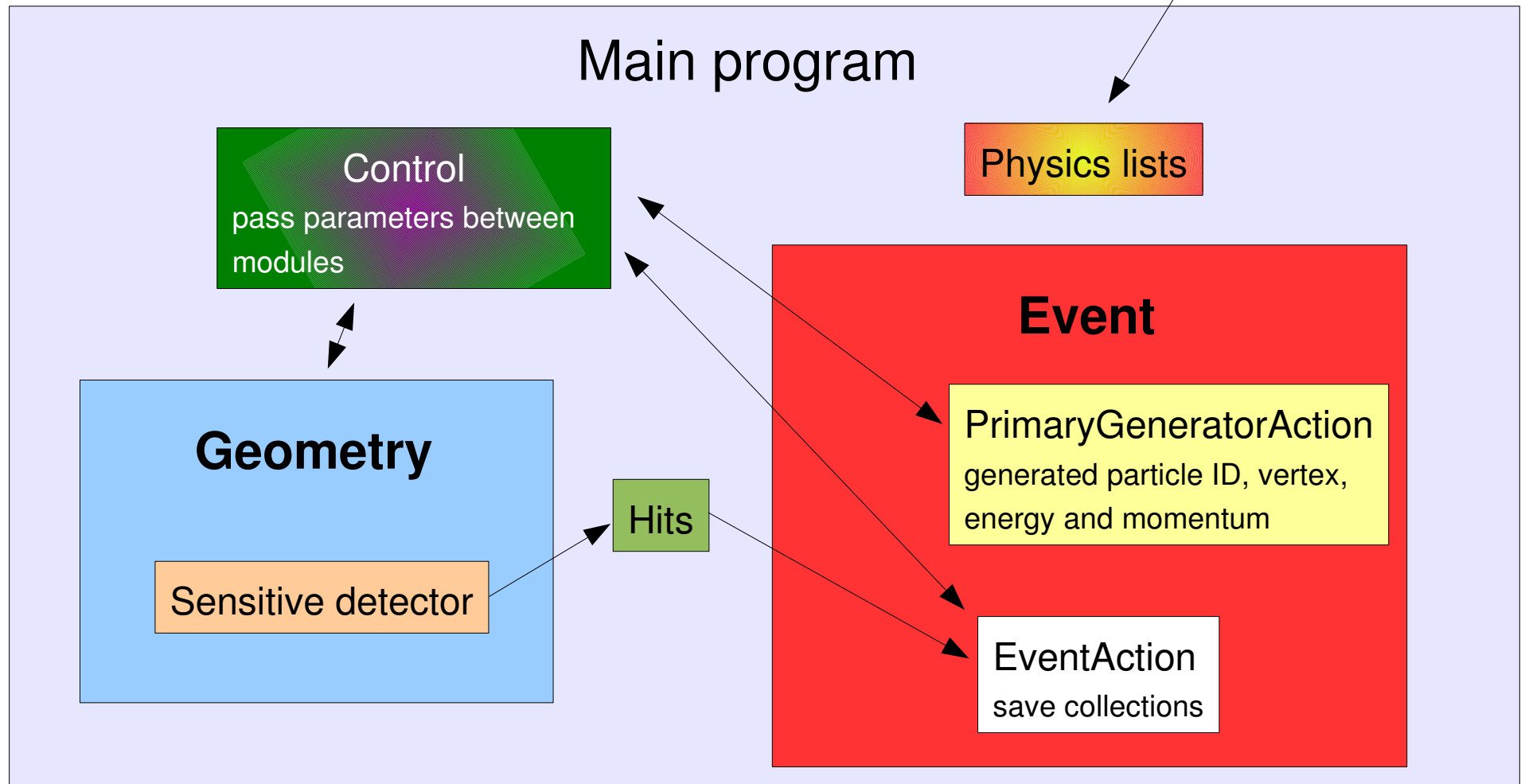
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Overview

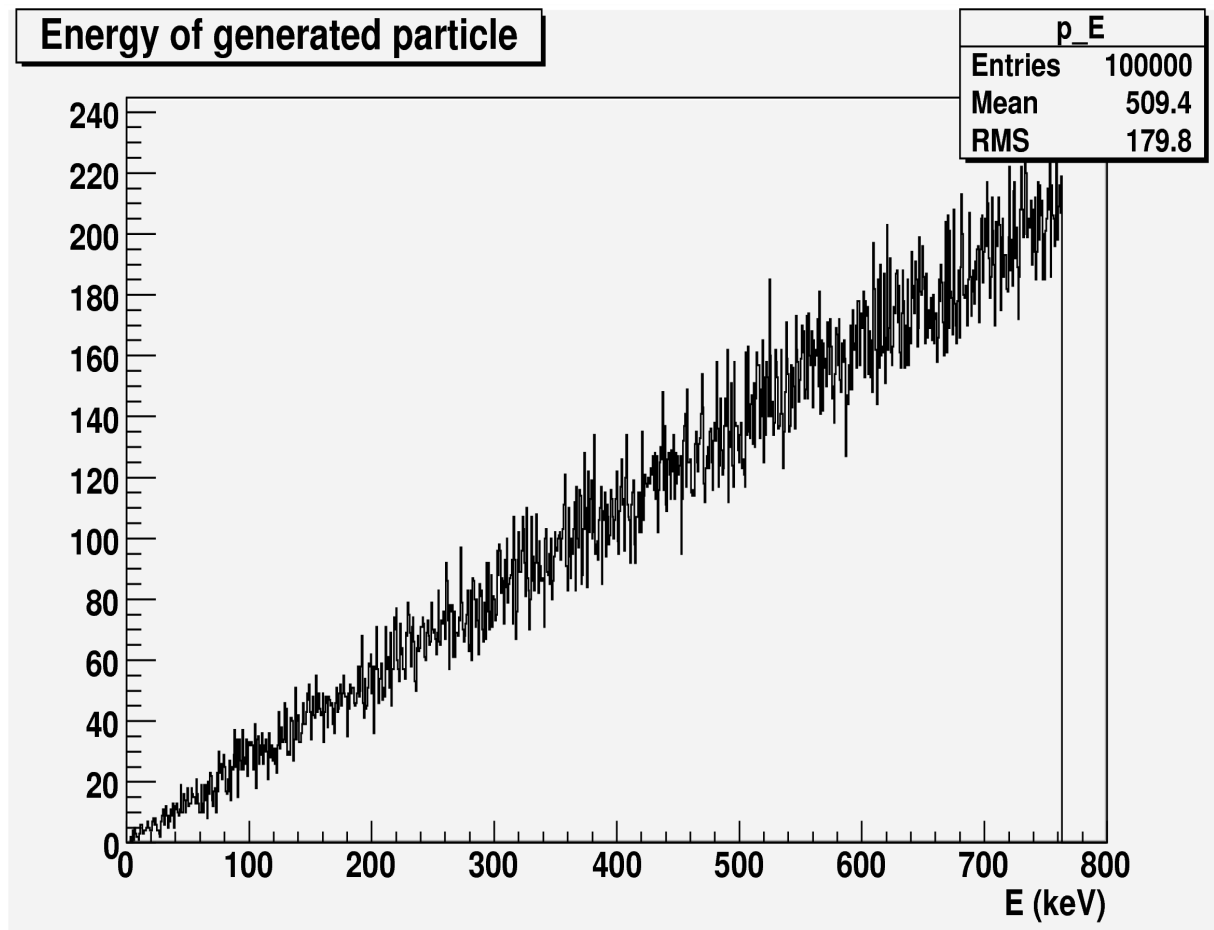
- New Geant4 application
- Structure:

Copied from Mokka



Source setup

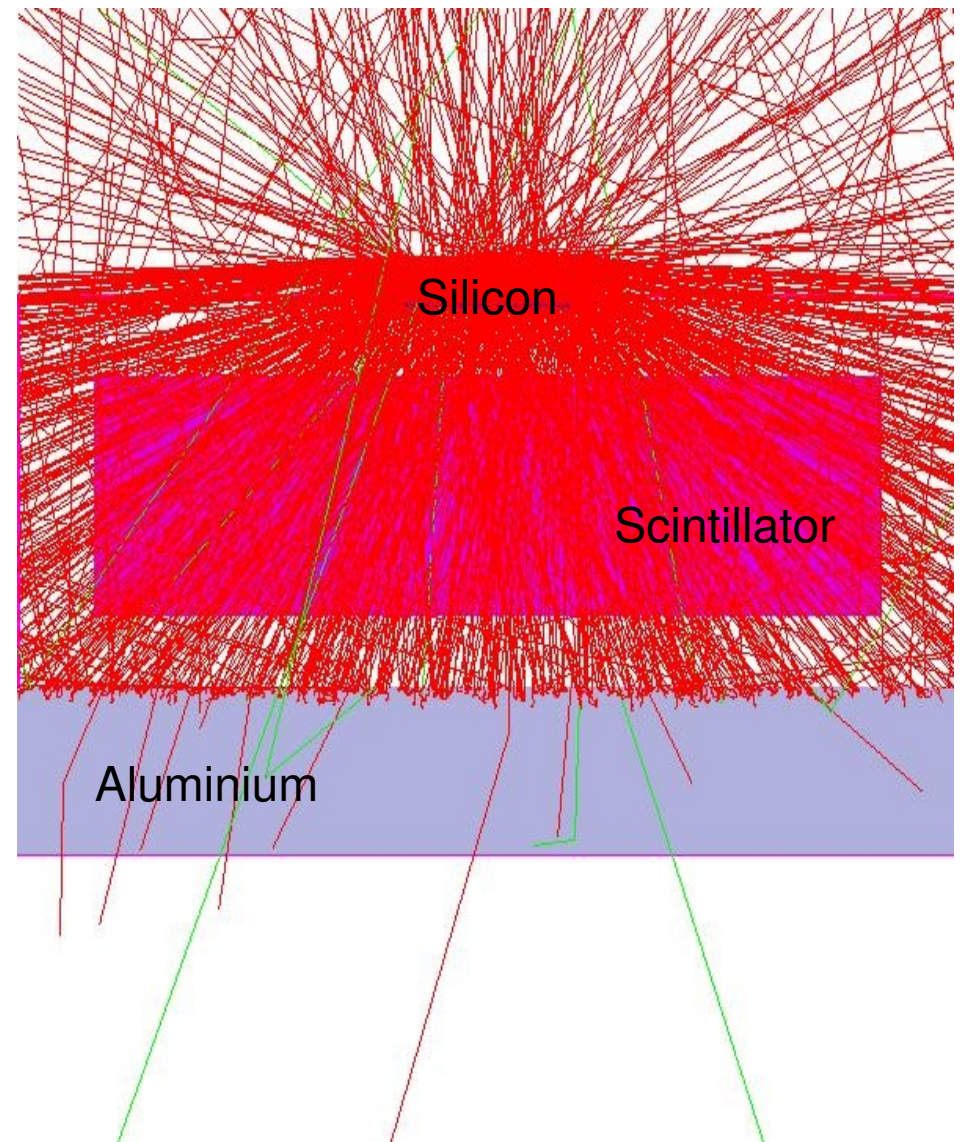
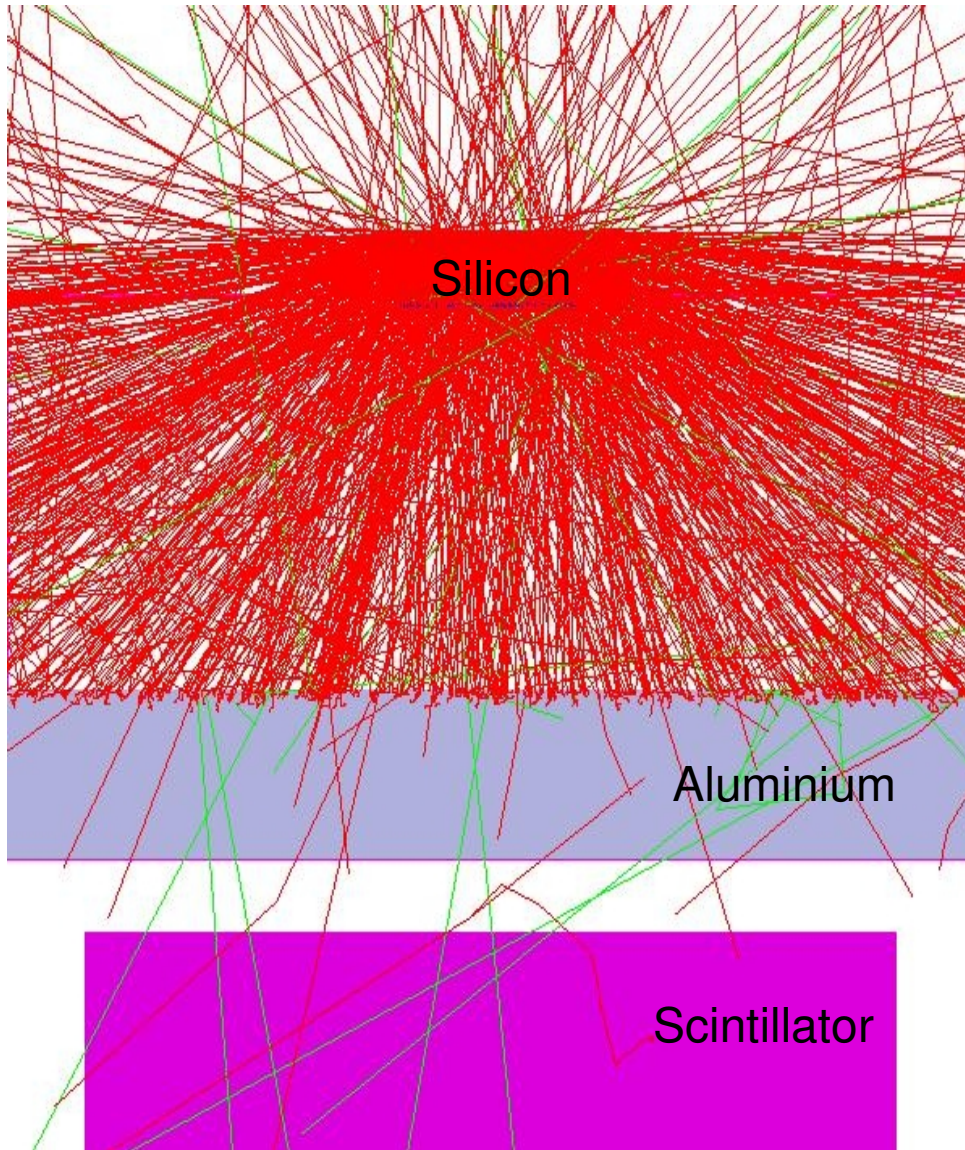
- Energy spectrum of a Thallium source:



Generated randomly in :
- vertex position over a 1*1 cm² area
- in momentum in the bottom half space

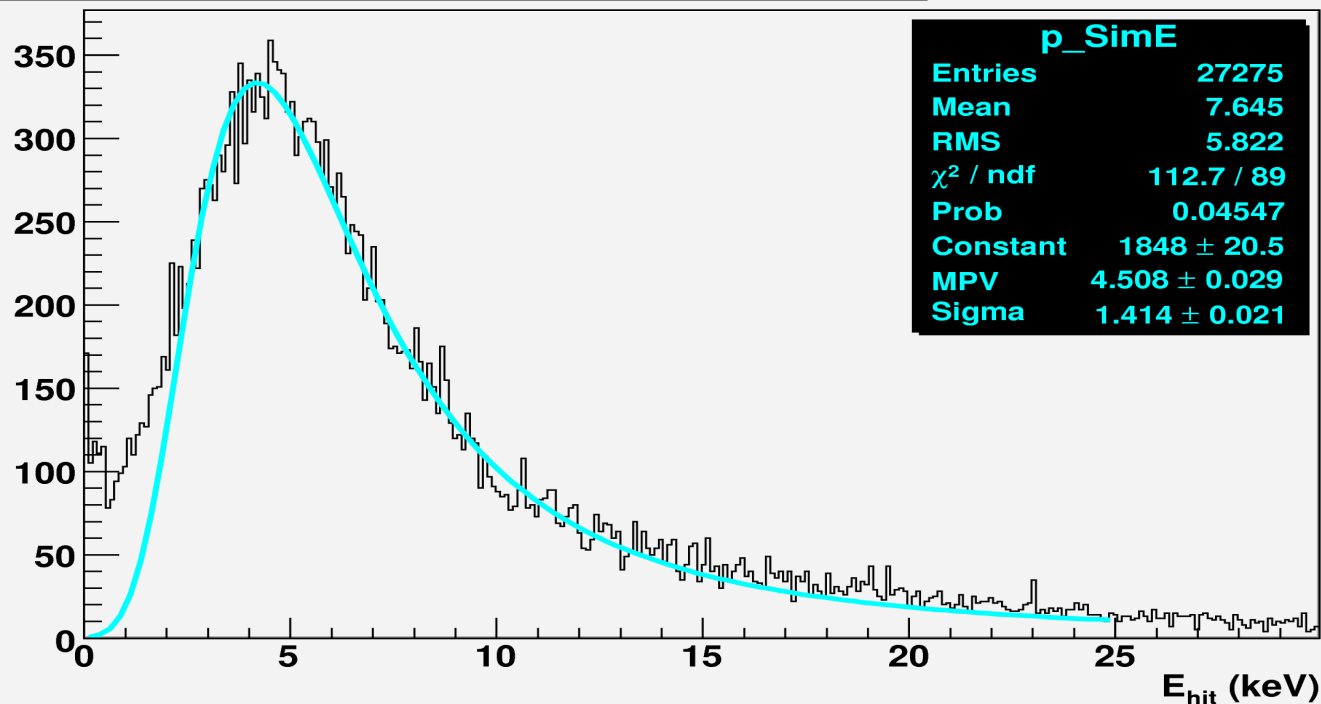
Event displays

1000 events superimposed

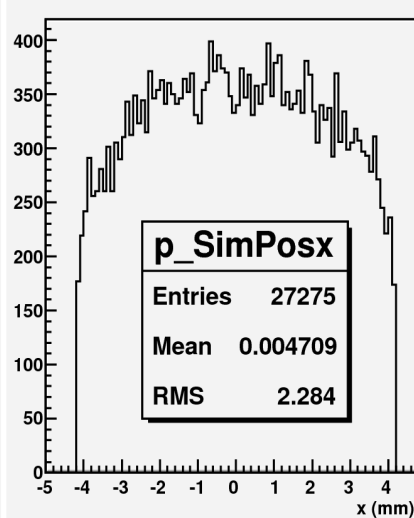


LCIO collection output

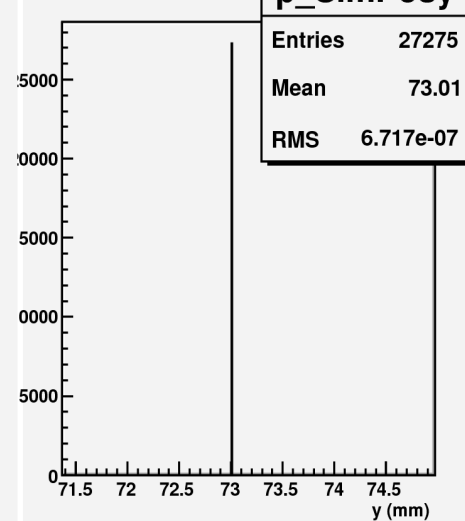
Energy per hit (in keV) for a Tl source



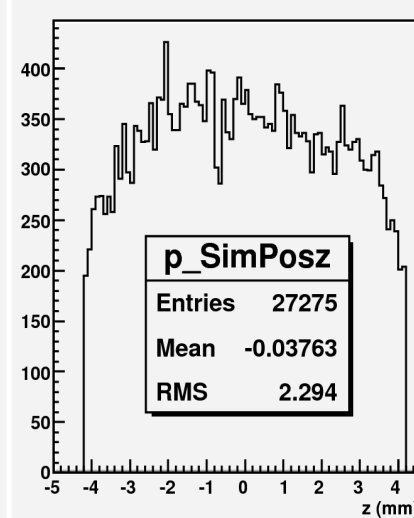
x position of hits



y position of hits

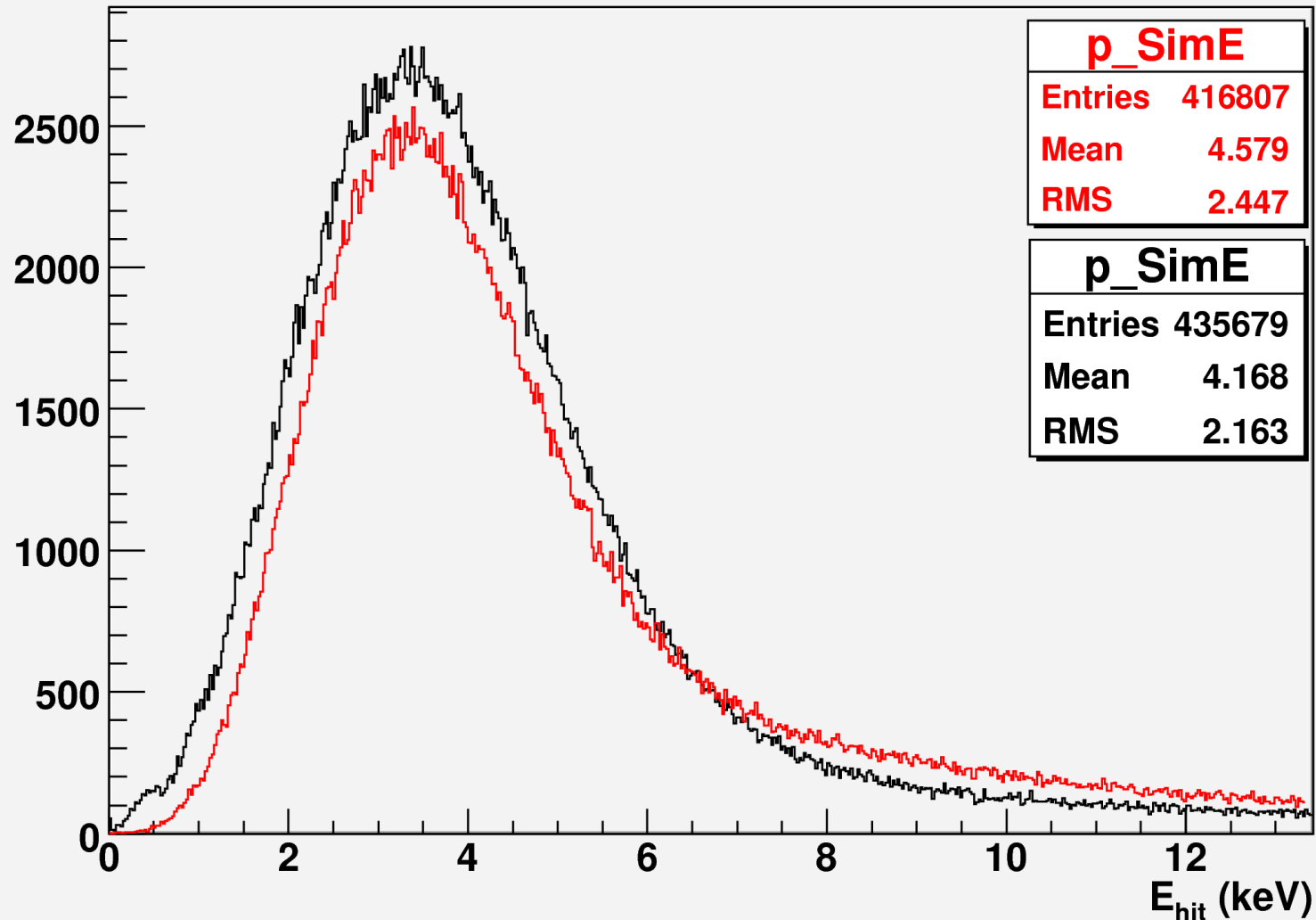


z position of hits

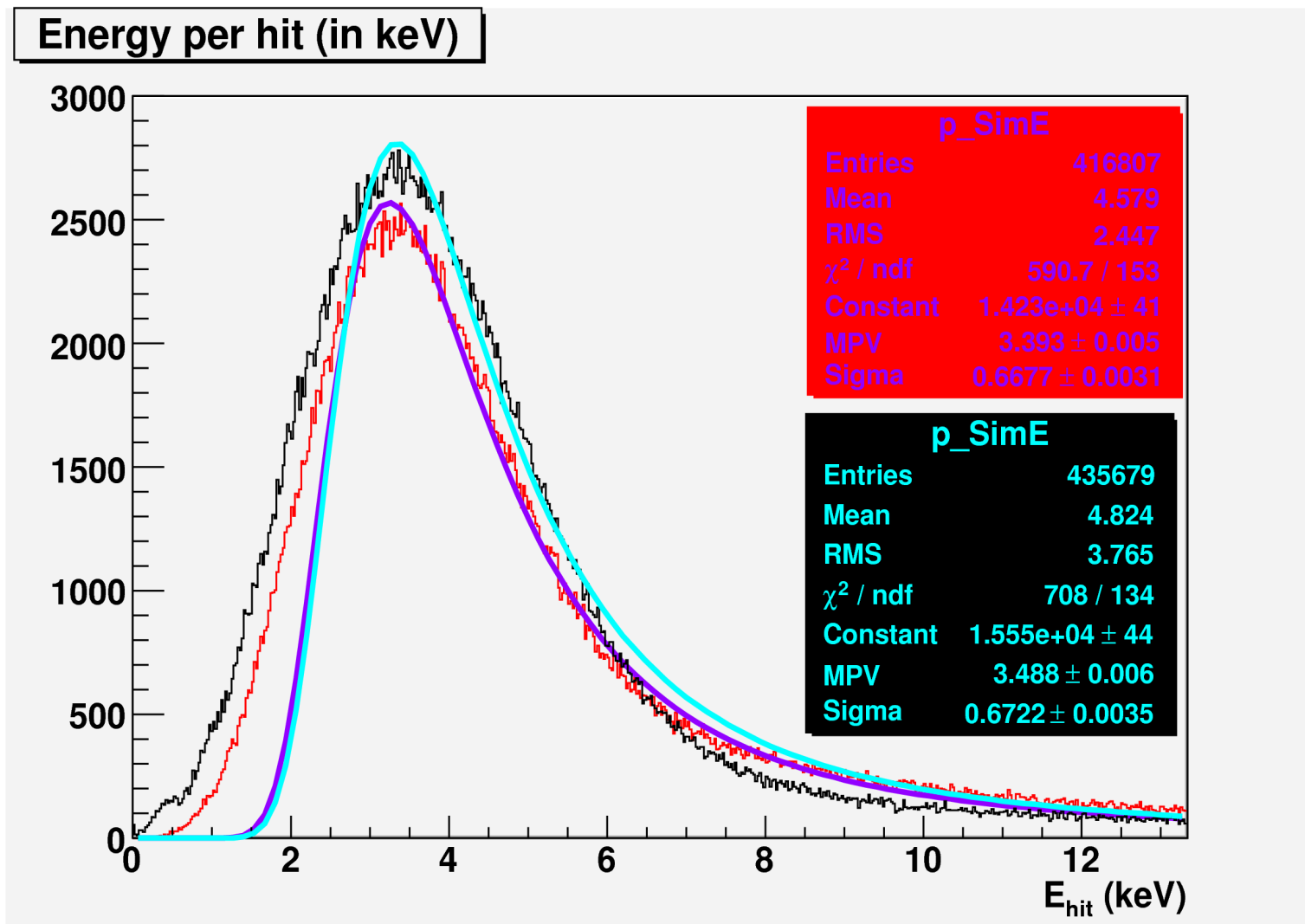


With 20 GeV muons to check

Energy per hit (in keV) for 20 GeV muons



With 20 GeV muons to check



Not Landau
?!??

Conclusion

- Now that I understand better how an application works, will go **back to Mokka** !
- Can use most of the **existing classes** and structure :
 - Need to write a Geometry file independant of the database, inheriting from the Mokka **subdetector** base class,
 - That implies a **new main program** to bypass Mokka CGAGeometryManager...
 - + a **new SensitiveDetector driver**, again inheriting from the Mokka SensitiveDetectors base class,
 - + a **new Encoder class**, with just I and J (and K for the TB) useful..
 - + a modified PrimaryGeneratorAction to generate a **random spectrum in energy** and momentum for the incoming particle....