Status report on the SciTil detector

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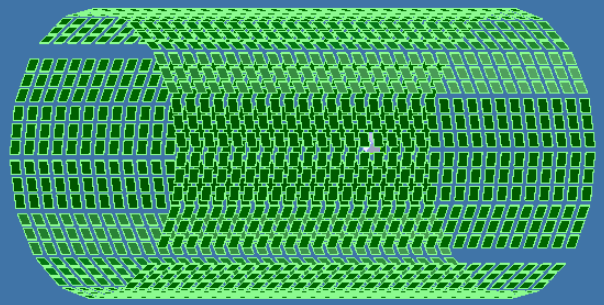
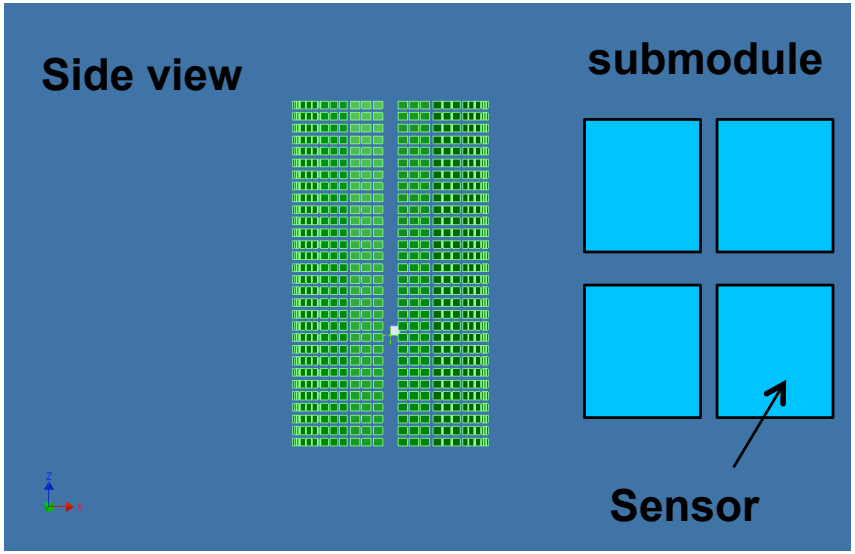
Technical Design

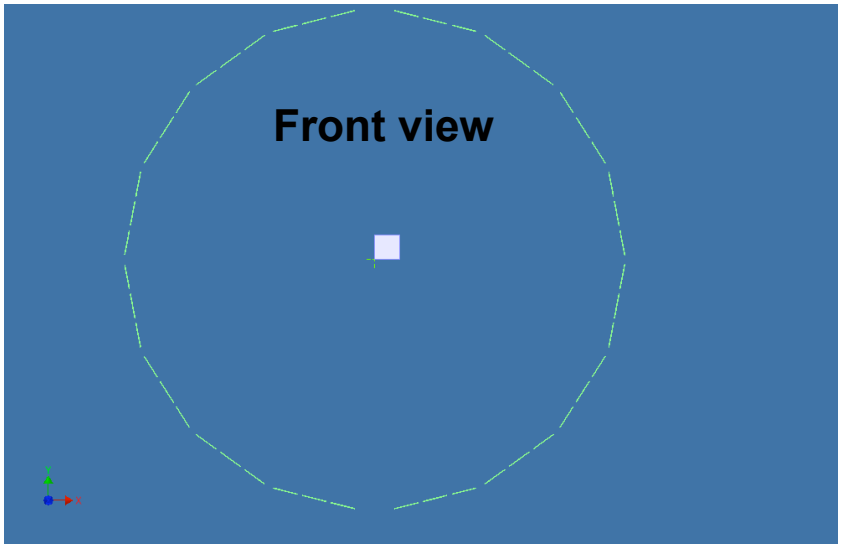
Same dimension as
previos tof barrel detector



30 rings : 17 modules:
3 submodules ech
previos tof barrel detector

Each submodule
contains 4 sensors 2X2X0.5cm





Implementation on Pandaroot framework

Root Geometry provided by T. Stockmanns by using CadConverter program

Material : Polypropylene

Repository : /trunk/scitil

PndSciT.cxx /h

PndSciTPoint.cxx /h

PndSciTHit.cxx/ h : PndSciTProducerIdeal.cxx/h

/trunk/macro/

simulation macro

fast analysis macro

ideal hit production macro

Hitcollections info

PndSciTPoint.h

```
PndSciTPoint (Int_t trackID, Int_t evtID, Int_t detID,
              TString detName, TVector3 posin,
              TVector3 momin,  TVector3 posout,
              TVector3 momout,  Double_t tof, Double_t length,
              Double_t eLoss,Double_t charge,
              Double_t mass,  Int_t pdgCode)
```

PndSciTHit.h -> Hit Position provided correspond to the middle point of each sensor in the submodule

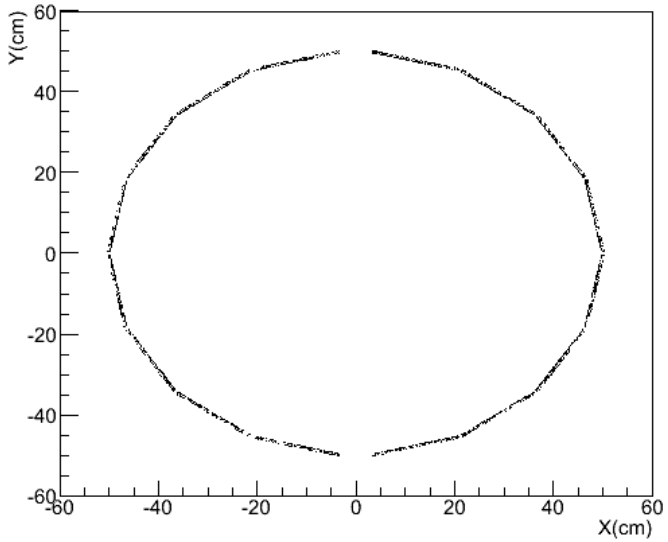
Time is smeared by dT of the detector ~ 100ps

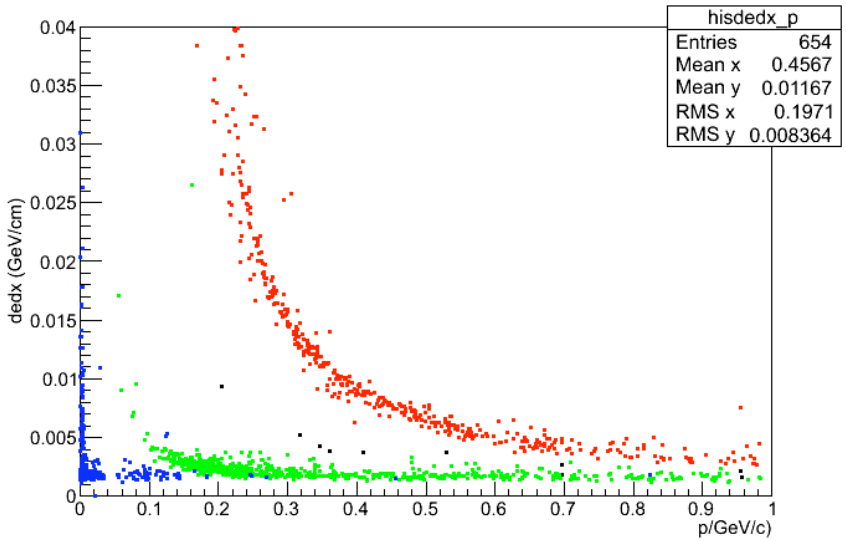
```
PndSciTHit (Int_t trackID,
            Int_t detID, TString detName,
            Double_ttime,Double_t dt,
            TVector3& pos,TVector3& dpos,Int_t index,
            Double_t charge);
```

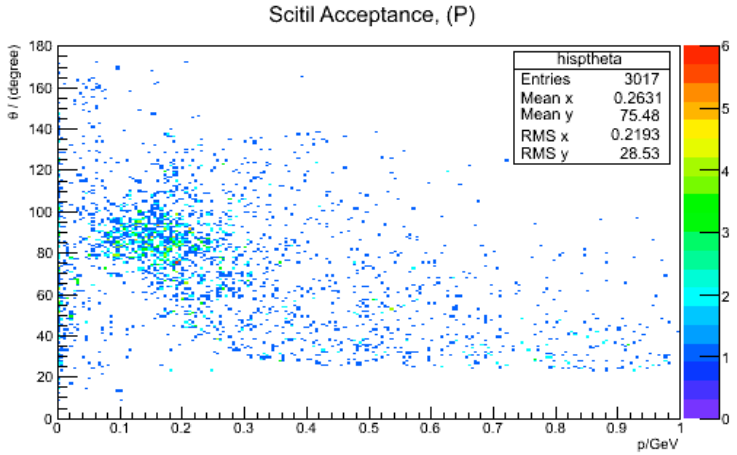
Raw MC information : SciTPoint

UrQMD generator

300 events, mult ~ 10 particles/event

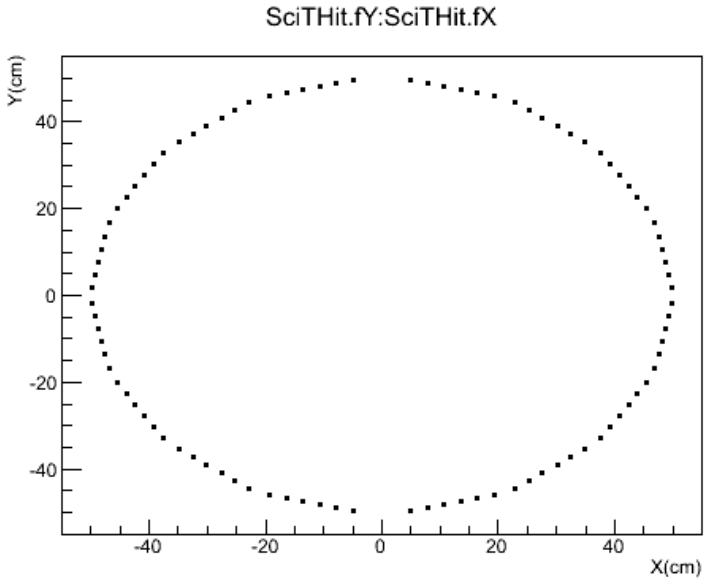


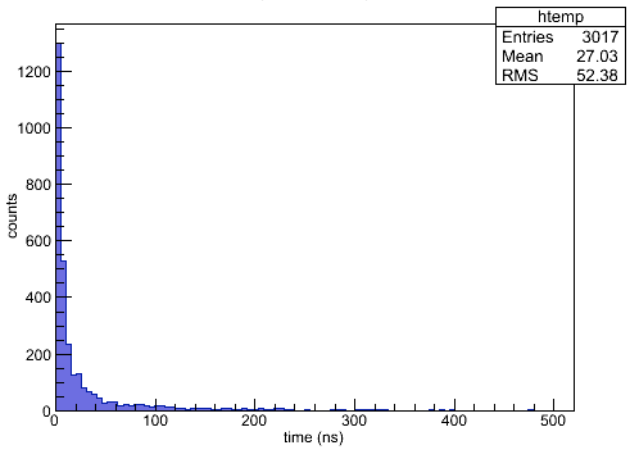




Ideal Hit Information

PndSciTHit.h





PndSciTPoint.h