
Subject: getting run_rutherford to calculate eta parameter [SOLVED]

Posted by [Raphael Cervantes](#) on Wed, 14 Nov 2012 20:18:02 GMT

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Hi all,

I would like to request help in modifying fairroot to give me information about $\eta = -\log(\tan(\theta/2))$, which is a very common parameter for understanding detector physics. Moreover, I think it should calculate eta by default, in the same way that it calculates phi and theta by default.

To give more background:

The way fairbase is in the repository, if you do

```
root fairroot/examples/rutherford/macros/run_rutherford.C
```

the output is contained in fairroot/examples/rutherford/macros/data/test.mc.root.

If I open the root file

```
root data/test.mc.root
```

```
TBrowser j
```

Then you will see the attached image. I would like to modify fairroot to include information about eta as one of the leaves of FairRutherfordPoint. Can someone tell me how to do that? Would I need to make changes to FairRutherfordPoint? FairMCPoint? etc...

I hope I'm making myself clear. All help is greatly appreciated

-Raphael

File Attachments

1) [test.mc.root.png](#), downloaded 337 times

Object Browser

Browser File Edit View Options Tools

Files

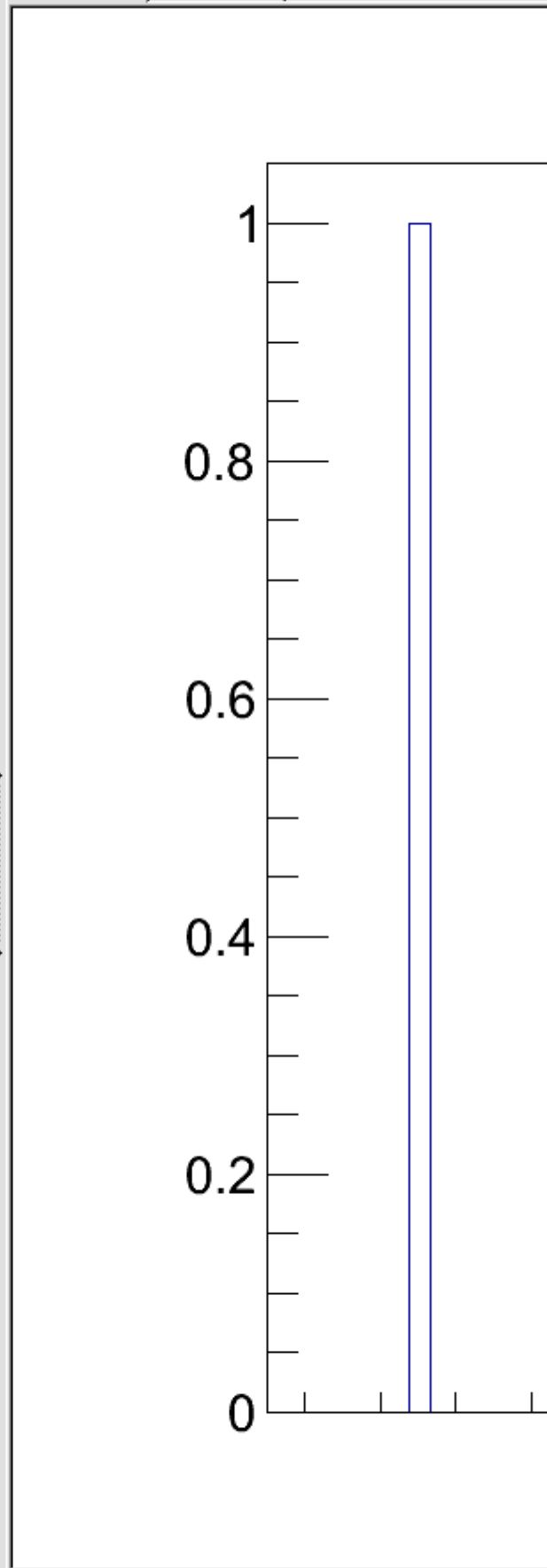


Draw Option:

- root
- PROOF Sessions
- ROOT Files
 - data/test.mc.root
 - cbmroot;1
 - BranchList;1
 - FileHeader;1
 - cbmsim;1
 - MCTrack
 - FairRutherfordPoint
 - FairRutherfordPoint.fUniqueID
 - FairRutherfordPoint.fBits
 - FairRutherfordPoint.fLinks
 - FairRutherfordPoint.fPersistenceCheck
 - FairRutherfordPoint.fVerbose
 - FairRutherfordPoint.fDefaultType
 - FairRutherfordPoint.fTrackID
 - FairRutherfordPoint.fEventId
 - FairRutherfordPoint.fPx
 - FairRutherfordPoint.fPy
 - FairRutherfordPoint.fPz
 - FairRutherfordPoint.fTime
 - FairRutherfordPoint.fLength
 - FairRutherfordPoint.fELoss
 - FairRutherfordPoint.fDetectorID
 - FairRutherfordPoint.fX
 - FairRutherfordPoint.fY
 - FairRutherfordPoint.fZ
 - FairRutherfordPoint.fRadius
 - FairRutherfordPoint.fPhi
 - FairRutherfordPoint.fTheta
 - @size
 - MCEventHeader.
 - GeoTracks
- home
 - raphael
 - Desktop
 - Documents
 - 43 orders
 - GRE
 - MATLAB
 - cbmroot
 - cpractice
 - eic-smear
 - eicroot
 - fairbase
 - fairroot
 - fastjet-3.0.3
 - h1dummy

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Canvas_1 Editor 1



Command

Command (local):