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Subject: Re: How to distinguish between STT hits in barrel part and forward tracker?

Posted by [Jennifer Pütz](#) on Wed, 22 Jun 2016 15:05:17 GMT

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Hi everyone,

some time ago I had the question how to distinguish between STTHits and FTS Hits. I still have this problem.

I simulated 100 piminus with boxgenerator using a theta range of [6 .. 9] degrees and a momentum range of  $p=[0.1 .. 0.7]$  GeV/c. (This momentum range corresponds to the

GeV/c.)

For the reconstruction, I used ideal PR with the condition of more than 3 hits in MVD, STT or GEM and ideal PID.

Nearly all events are looking like the one shown in the picture below.

The blue squares denote the MVD hits, the red squares are the GEM hits and the pink squares are the FTS hits. As you can see, there are no hits in the STT.

The next pictures show the number of hits in the MVD, STT and GEM detector for the reconstructed particle (looking at the same Evt).

And here you can see, that there are counted STT hits.

This means, that the selection criterion I mentioned above does not work because this pion would not be discarded.

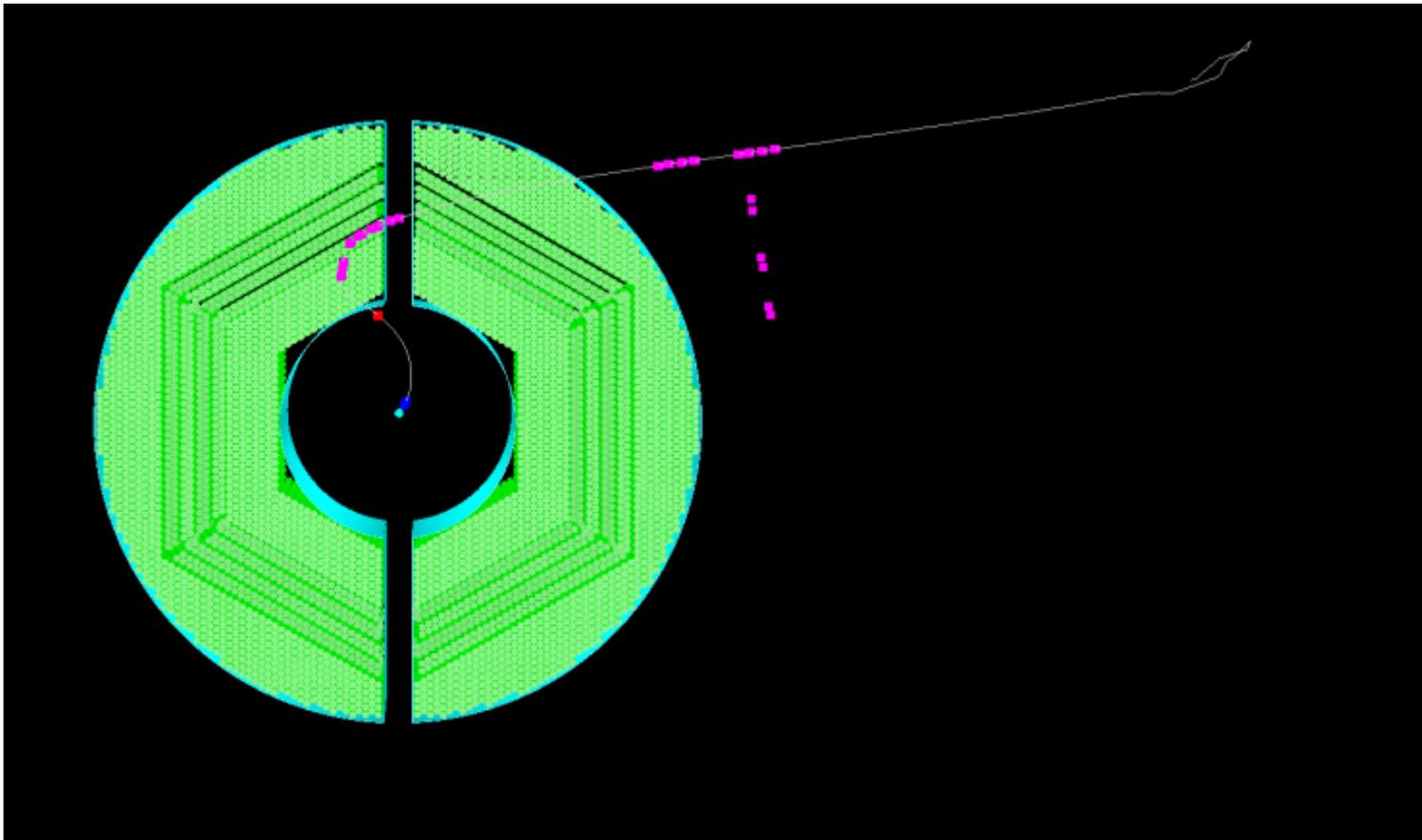
At the moment, there is no chance for me to switch to a realistic PR.

Best regards,

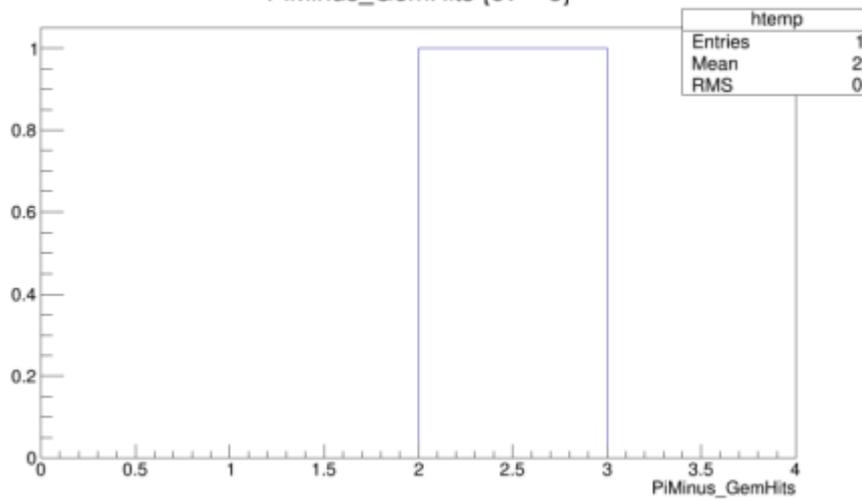
Jenny

### File Attachments

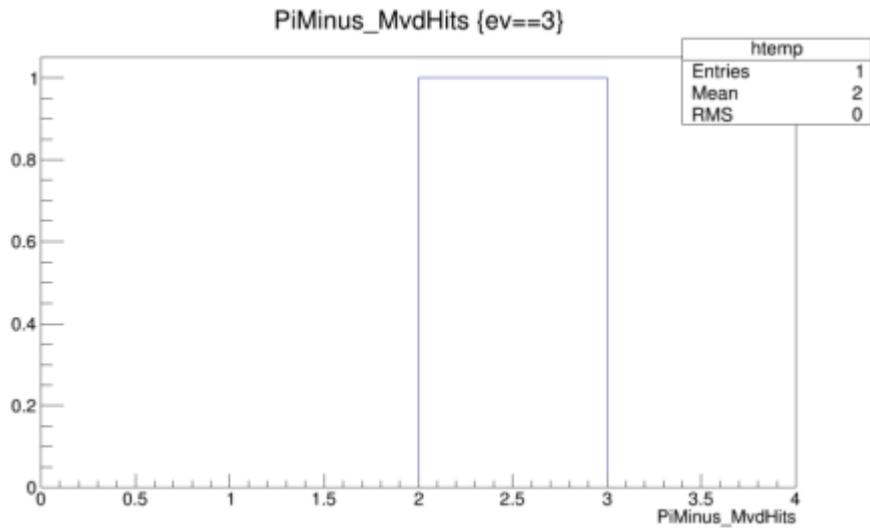
1) [pion\\_8\\_6\\_degree\\_new\\_resize.png](#), downloaded 1174 times



2) [gem\\_hits.png](#), downloaded 1170 times  
PiMinus\_GemHits (ev==3)



3) [mvd\\_hits.png](#), downloaded 1107 times



4) [stt\\_hits.png](#), downloaded 1160 times

