Subject: Re: Efficiency reduction of antiprotons above 20 degrees
Posted by StefanoSpataro on Sat, 06 Dec 2014 16:02:22 GMT
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Dear Karin,
I would like you to comment (just to be sure) if you are using ideal tracking, if you removed out backward propagation, or if you are using standard macros. Moreover, your "old" trunk was the trunk or a version of the scrut release?

Apart from this, I checked a bit the numbers, in the meantime of the two versions the radius of the first plane of GEM was reduced from 42 cm to 38 cm. This corresponds to the region around 22° where you see the jump, then maybe it is connected to this change in the geometry. Since in the GEM region the field is not constant, maybe protons and antiprotons are deflected (in theta) diferently, and this is the reason why the hole apepars only for one kind of particle. If I am correct, this should happen also for the pions with the same momenta, maybe you can check. Or maybe simply antiprotons interact with some materials in that region and are absorbed, while protons continue, hit again some gem plane and the efficiency is still high.

In this sense, I would suggest to have a comment from the GEM experts (Radek, Dima).