Subject: Problems with new GEM Geometry
Posted by Tobias Stockmanns on Tue, 17 Apr 2018 09:22:25 GMT
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Dear PandaRooters and GEM experts,

in the analysis of the reaction: pbar p -> Xi Xibar pi pibar -> 3 pi 3 pibar p pbar we see a significant drop in the reconstruction efficiency depending on the GEM geometry we use. With the old geometry (gem_3Stations_Tube.root) we get 18.3% (15.2% MCTruth matched) of reconstructable events with all final state particles in the event, while with the new geometry (gem_3Stations_realistic_v2.root) this value drops to 6.4% (4.3% MCTruth matched).

It is not clear if this is a real effect of the additional material introduced by the more realistic description of the GEMs or if there is still a bug in the geometry description which causes the drop of a factor 3.

It would be great if an expert on the GEMs could have a look.

Cheers,

Tobias