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Subject: antiprotons lost above 10 degrees

Posted by [Karin Schönning](#) on Thu, 30 Oct 2014 14:24:25 GMT

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Dear colleagues,

I am studying the  $\bar{p} p \rightarrow \bar{\Lambda} \Lambda$  benchmark channel at 1.64 GeV ( $\Lambda \rightarrow p \pi^-$ ,  $\bar{\Lambda} \rightarrow \bar{p} \pi^+$ ). When "turning off" the MVD/GEM (to do tests for the scrutiny campaign) very few antiprotons are reconstructed above 10 degrees. Other particles (protons and pions) have a "band" with very low efficiency between 10 and 20 degrees (see attached pictures, hopefully the titles are self-explanatory).

I use ideal pattern recognition, and have tried with and without ideal hypothesis in the Kalman filter, with qualitatively the same result.

Before the summer I did the same exercise but got a different result, then tracks in this area were reconstructed.

Does anybody have an idea what the reason may be?

Best regards,  
/Karin

#### File Attachments

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- 1) [th\\_p\\_pbar\\_full.pdf](#), downloaded 337 times
  - 2) [th\\_p\\_p\\_full.pdf](#), downloaded 350 times
  - 3) [th\\_p\\_pbar\\_nomvdgem.pdf](#), downloaded 348 times
  - 4) [th\\_p\\_p\\_nomvdgem.pdf](#), downloaded 349 times
  - 5) [th\\_p\\_pim\\_full.pdf](#), downloaded 327 times
  - 6) [th\\_p\\_pim\\_nomvd.pdf](#), downloaded 340 times
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