
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

- 1) [th_p_pbar_full.pdf](#), downloaded 571 times
 - 2) [th_p_p_full.pdf](#), downloaded 590 times
 - 3) [th_p_pbar_nomvdgem.pdf](#), downloaded 585 times
 - 4) [th_p_p_nomvdgem.pdf](#), downloaded 594 times
 - 5) [th_p_pim_full.pdf](#), downloaded 564 times
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