

Tertiary particle production and target optimization of the H2 beam line in the SPS North Area

Felix Tellander

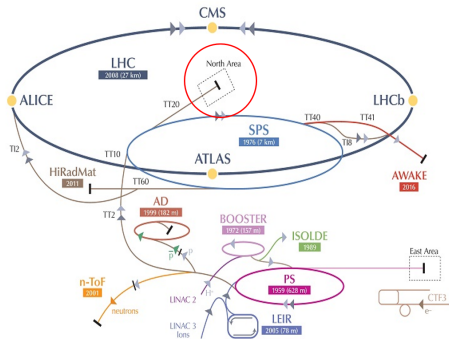
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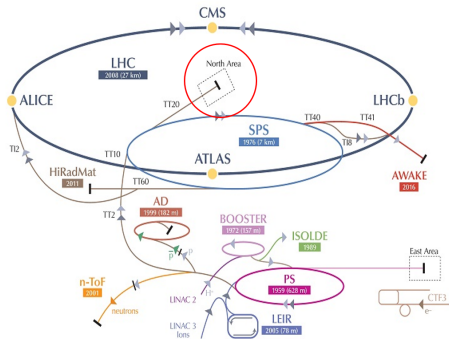
Supervisor: Nikolaos Charitonidis

August 11, 2016

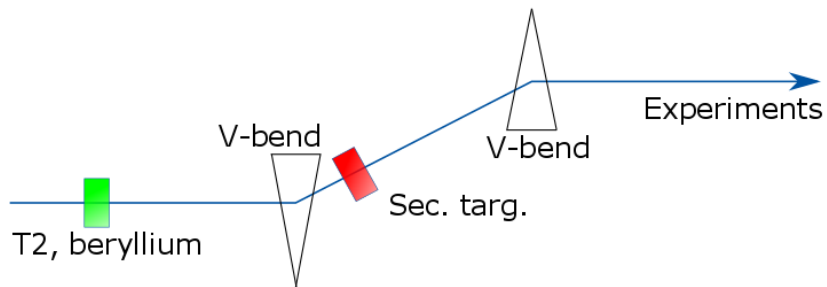
The H2 beam line



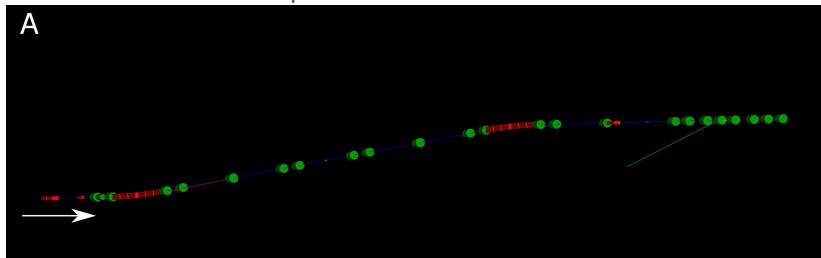
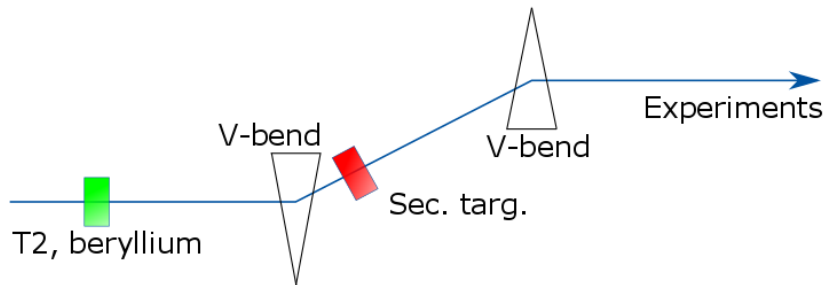
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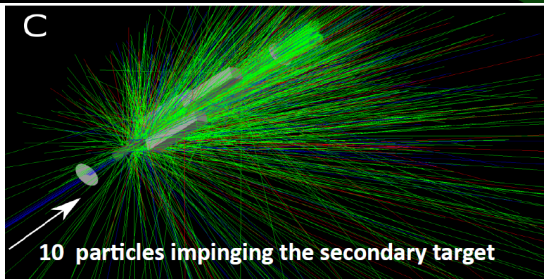
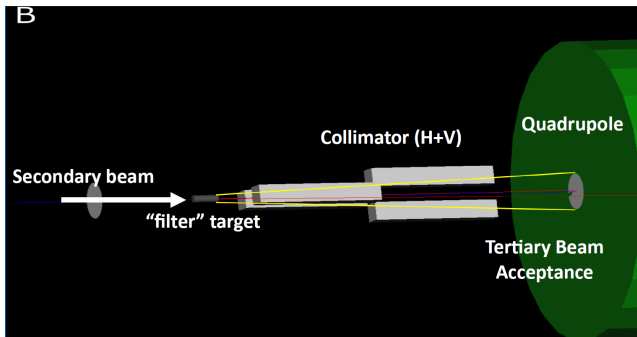
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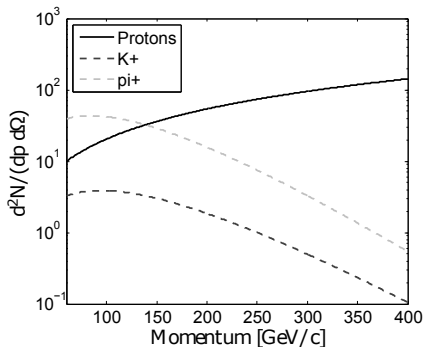
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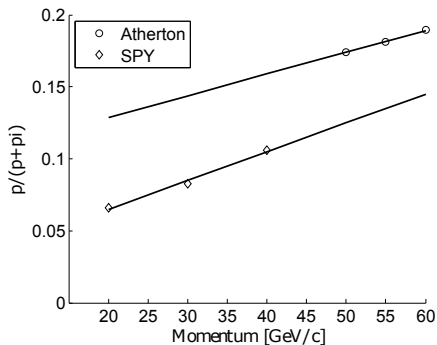
The H2 beam line



Production from beryllium



Atherton *et al.* CERN 80-07;



NA56/SPY Collaboration and Ambrosini *et al.* EPJC 10(4)

Purpose:

Optimize proton production in the middle energy range, 20-60 GeV/c.

Targets:

- Cu: 100, 300 mm
- Polyethylene: 550 700
1000 mm
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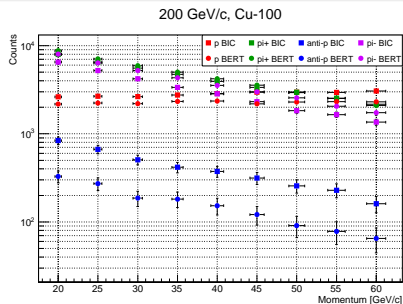
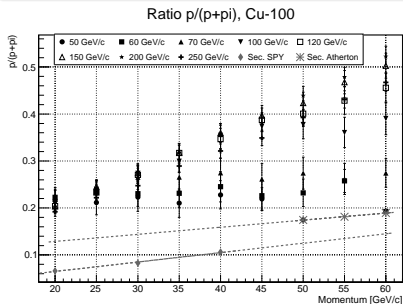
Physics lists:

- FTFP_BERT
- QGSP_BIC

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Optimal 60 GeV/c proton production is given by 100 mm Cu with 200 GeV/c incident beam.



All results can soon be found in this ATS note (to be published):



ATS/Note/2016/NNN (sub ref)

2016-08-04

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The End
Tank you for listening