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## Study of prompt $D^0$ meson production and cold nuclear matter effects in proton-lead collisions at $\sqrt{\text{sNN}}$ = 5TeV in the forward region with LHCb

Tuesday, 24 May 2016 17:00 (20 minutes)

The productions of prompt  $D^0$  mesons in proton-lead collisions in the forward and backward configurations were studied. The data are collected with the LHCb detector with at a centre-of-mass energy of 5TeV. The integrated cross-section is measured to be  $237\pm1\pm15$ mb ( $259\pm3\pm19$ mb) for the forward (backward) rapidity range 1.5 < y < 4 (5 < y < 2.5), in the pT range 0 < pT < 8 GeV/c. Nuclear modification factors and forward-backward ratios are determined, suggesting suppression in the forward direction.

## Collaboration

LHCb

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