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## LHCb results in proton-nucleus collisions at the LHC

*Monday 11 May 2015 10:40 (40 minutes)*

The production of  $J/\psi$  and  $Y$ -mesons decaying into dimuon final state is studied at the LHCb experiment, with rapidity  $1.5 < y < 4.0$  or  $-5.0 < y < -2.5$  and transverse momentum  $p_T < 15$  GeV/c, in proton-lead collisions at a proton-nucleon centre-of-mass energy of 5 TeV. The analysis is based on a data sample corresponding to an integrated luminosity of 1.6/nb. The forward-backward production ratio and the nuclear modification factor are determined for  $J/\psi$  and  $Y(1S)$ . Indication of forward backward production asymmetry is observed. There is also an indication of  $J/\psi$  and  $Y(1S)$  production suppression with respect to proton-proton collisions in forward region and anti-shadowing effect in backward region. Results on vector boson production are also presented.

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