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High- p_T probes in Pb+Pb and p+Pb collisions with the ATLAS detector

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ATLAS presents the first result of the measurement of the jets and electroweak bosons in proton-lead collisions at $\sqrt{s_{NN}}=5.02$ TeV. The data was obtained during the LHC 2013 proton-lead with integrated luminosity of approximately 30nb^{-1} . Forward jet production in proton-lead collisions is expected to be sensitive to saturation of parton distribution in the lead nucleus. ATLAS measurements of the dijet azimuthal angle difference distributions in p+Pb collisions will be presented as a function of centrality and compared to similar measurements in p+p collisions at 2.76 TeV. The first results on the electroweak boson production rates and rapidity distributions as a function of collision centrality shed light on significance of the initial state effect in proton-lead collisions at LHC.

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