Diffraction and Low-x 2022



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Forward proton measurements with ATLAS

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The elastic scattering of protons at 13 TeV is measured in the range of protons transverse momenta allowing the access to the Coulomb-Nuclear-Interference region. The data were collected thanks to dedicated special LHC beta* = 2.5km optics. The total cross section as well as rho-parameter, the ratio of the real to imaginary part of the forward elastic scattering amplitude, are measured and compared to various models and to results from other experiments. Measurements of exclusive di-pion production will also be discussed.

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