Phenomenology 2018 Symposium



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Eikonal fit and Comprehensive fit to high energy data for σ , ρ , and B: An Update

Tuesday 8 May 2018 15:15 (15 minutes)

We update our eikonal fit and comprehensive fits to high energy data on proton–proton and antiproton– proton forward scattering for σ , ρ , and B including the Telescope Array value of total proton-proton cross section at $W = \sqrt{s} = 95$ TeV and the latest measurements of the inelastic cross sections at W= 8 TeV (by TOTEM and ATLAS) and 13 TeV (by CMS and ATLAS). The stability of the fits is excellent and the obtained results agree well with the predictions of earlier fits. This work again confirms the evidence for the proton asymptotically becoming a black disk of gluons.

Summary

Primary author: Dr HA, Phuoc (Towson University)Presenters: Dr HA, Phuoc (Towson University); HA, Phuoc (Towson University)Session Classification: QCD & EW I