Contribution ID: 995 Type: Parallel

Search for contact interactions in inclusive ep scattering at HERA

Friday 6 July 2018 15:00 (15 minutes)

The high-precision HERA data are used to search for Beyond the Standard Model contributions to electron-quark scattering in the framework of eeqq contact interactions (CI). Combined measurements of the inclusive deep inelastic cross sections in neutral and charged current ep scattering are considered, corresponding to a luminosity of around 1 fb $^{-1}$. The analysis of the inclusive ep data is based on the simultaneous fits of parton distribution functions together with contributions of CI couplings to ep scattering. Results are presented for different CI scenarios and the resulting 95% CL limits on the CI mass scales extend up to the 10 TeV scale.

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Session Classification: Beyond the Standard Model

Track Classification: Beyond the Standard Model