

AMPLITUDES AND OBSERVABLES IN pp ELASTIC SCATTERING AT 7 TeV

Friday, 14 September 2012 10:10 (20 minutes)

Summary

A complete analysis is performed of the recent pp elastic data at 7 TeV in terms of its real and imaginary amplitudes, that are fully disentangled, consistently with dispersion relations for amplitudes and for slopes.

Real and imaginary slopes $B(R)$ and $B(I)$, treated as independent quantities, influence the whole t -range and the determination of the total cross section. The treatment includes prediction for the universal perturbative tail at large $|t|$.

New generalized expression is derived for the Coulomb phase.

Comparison is made of the values of total cross section and $B(I)$ obtained in forward and full- t approaches.

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Session Classification: Diffraction in Hadron-Hadron Collisions (II)

Track Classification: Diffraction in hadron-hadron collisions