



On Model-Independent Analyses of Elastic Hadron Scattering

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By means of an almost model-independent parametrization for the elastic hadron-hadron amplitude, as a function of the energy and the momentum transfer, we obtain good descriptions of the physical quantities that characterize elastic proton-proton and antiproton-proton scattering (total cross section, r parameter and differential cross section). The parametrization is inferred on empirical grounds and selected according to high energy

theorems and limits from axiomatic quantum field theory. Based on the predictive character of the approach we present predictions for the above physical quantities at the Brookhaven RHIC, Fermilab Tevatron and CERN LHC energies.

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