



Baryons—Testing Ground of QCD Dynamics



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Quantum Chromodynamics, QCD, has been established as the fundamental theory of the strong interaction for a long time, yet its non-perturbative dynamics remains incompletely understood. Most properties of hadrons, such as those of the familiar proton and neutron, are determined by these non-perturbative dynamics, and through the experimental and theoretical study of hadrons important aspects are being revealed. This talk will focus on the role played by the study of baryons, discussing in particular the spectrum of excited baryons. Two significant theoretical advances will be highlighted: studies of the baryon spectrum by means of lattice simulations of QCD, and analysis of that spectrum by the implementation of the $1/N_c$ expansion, where N_c is the number of color degrees of freedom in QCD.

