Meson Spectroscopy in $\pi^- p$ Interactions at 18 GeV/c —Recent Results from Brookhaven E852.

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(July 20, 1999)

Studies of meson spectra via strong decays of hadrons provide insight regarding QCD at the confinement scale. These studies have led to phenomenological models for QCD such as the constituent quark model. However, QCD demands a much richer spectrum of meson states which includes extra states such as hybrids($q\bar{q}g$), multiquarks ($q\bar{q}q\bar{q}$), and glueballs (gg or ggg). Experiment E852 at Brookhaven National Laboratory is an experiment in meson spectroscopy configured to detect both neutral and charged final states of $\pi^- p$ collisions in a search for meson states incompatible with the constituent quark model. A description of the experimental appratus and program along with a general overview of the latest E852 results is given.