Meson Spectroscopy at JLab@12 GeV
Abstract

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Mesons, being the simplest hadronic bound system, are the ideal "laboratory" to study the interaction between quarks, to understand the role of the gluons and to investigate the origin of color confinement. To perform such studies it is importantto measure the meson spectrum, with precise determination of resonance masses and properties, looking for rare $q\overline{q}$ states and for unconventional mesons with exotic quantum numbers (i.e. mesons with quantum numbers that are not compatible with a $q\overline{q}$ structure).

With the imminent advent of the 12 GeV era at Jefferson Lab a new generation of meson spectroscopy experiments will start: "Meson-Ex" in Hall B and "GLUEX" in Hall D. Both will use photo-production to explore the spectrum of mesons in the light-quark sector, in the energy range of few GeVs.

In this talk I will present the physical motivations behind these experiments, their main characteristics and their scientific goals.