Light-quark meson spectroscopy with Crystal Barrel

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Abstract

The main physics objective of the Crystal Barrel Experiment is to clarify the spectrum of light-quark mesons with particular emphasis to search for new form of exotic hadronic matter like glueballs and hybrids predicted in QCD. This talk will be confined to discuss the present understanding of the $^3P_0$ scalar nonet and the observed evidence for the ground state scalar glueball. Moreover, the status of perception of the hybrid state at 1400 MeV/c^2 with the exotic quantum numbers 1^{-+} will be illuminated.