

Light hadron decays at BESIII

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Collaboration

BESIII Collaboration

Abstract content

The BESIII experiment at the electron positron collider BEPCII in Beijing is successfully operating since 2008 and has collected large data samples in the τ -mass region, including the world's largest data samples at the J/ψ and ψ' resonances. In particular decays of these two resonances provide a rich and clean environment to study hadrons consisting out of light quarks and search for exotics. The collaboration has recently started a campaign to understand the nature of the $X(18xx)$ states near the $p\bar{p}r$ mass threshold, and $Y(2175)$ resonances, which are debated to be exotic matter. Besides, several isospin-violated processes were observed, in related to which the $a_0(980) - f_0(980)$ mixing was observed for the first time. Important observations have also been archived in baryon spectroscopy, where the analyses benefit from the well defined initial state in e^+e^- collisions. Further, decays of η' mesons are studied to deepen our knowledge of their structure and possible symmetry breaking effects in their decays.

In this presentation recent results of the light hadron physics program will be highlighted.

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