

Spectroscopy at BESIII: Overview of most recent results

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Over the past two decades, a new class of exotic states, commonly referred to as XYZ states, has been identified. These states are incompatible with the conventional quark–antiquark picture and are therefore considered candidates for tetraquarks, mesonic molecules, or hybrids. Since the BESIII experiment began colliding e^+e^- beams in the center-of-mass energy range between 2.0 and 4.9 GeV, it has made major contributions to our understanding of this new family of states, which still lack a clear theoretical interpretation. BESIII data sets have allowed us to deepen our knowledge of the properties of charmonia, to investigate the light-hadron spectra, and to search for exotic XYZ hadrons and shed light on their nature. In this talk, I will present some of the most recent and noteworthy results from the BESIII collaboration, together with possible interpretations and their implications for the spectroscopy of non-ordinary hadrons.

Author: SCODEGGIO, Marco (INFN - Sezione di Ferrara)

Presenter: SCODEGGIO, Marco (INFN - Sezione di Ferrara)

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