



Contribution ID: 140

Type: Oral

Radiative transition studies with BESIII

Thursday, 3 September 2015 15:15 (15 minutes)

Charmonium spectroscopy is an ideal tool to systematically study the strong interaction between the fundamental building blocks of matter, quarks and gluons. From a theoretical and experimental point of view, charmonium is considered as one of the most controllable two-quark systems. Hence, precision measurements of the properties of charmonia allow a thorough study of the non-perturbative features of the strong interaction, such as confinement and the dynamic generation of the mass of hadrons. Radiative transitions between charmonium states can be exploited to study their structure and to probe states that are non-vector like. Moreover, radiative transition rates are perfect benchmarks to test the validity of potential models and calculations that are (partially) based on first principles, such as effect-field theoretical approaches and Lattice QCD. Over the past few years, BESIII at the BEPCII storage ring in Beijing, China, has harvest a wealth of data on E1 and M1 radiative transitions in e^+e^- annihilations. These data have been used to shed light on various puzzles related to charmonium spectroscopy. In this presentation, we give a review on the most recent results of BESIII related to radiative transitions.

Primary author: HADDADI, Zahra (KVI-CART)

Co-author: BESIII COLLABORATION

Presenter: HADDADI, Zahra (KVI-CART)

Session Classification: General, Miscellaneous