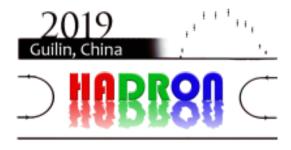
XVIII International Conference on Hadron Spectroscopy and Structure (HADRON2019)



Contribution ID: 141 Type: Parallel

Implications of spin symmetry for XYZ states

Saturday, 17 August 2019 15:15 (20 minutes)

In the last decade, numerous states have been observed which contain a heavy quark-antiquark pair, but demonstrate properties at odds with a simple quarkonium assignement. Such states are conventionally denoted as exotic states and traditionally labelled by the letters X, Y and Z.

Due to the presence of the heavy quraks, properties of various exotic states can be related through the Heavy Quark Spin Symmetry (HQSS). We build an Effective Field Theory approach to exotic molecular states in the spectrum of bottomonium which respects HQSS and fix all the parameters directly from the existing experimental data for the Zb(10610) and Zb(10650) resonances. Then the properties, such as the line shapes and the poles position, of their spin partners WbJ (J^PC=J^++, J=0,1,2) are predicted in a parameter-free way.

Primary author: Prof. WANG, Qian (South China Normal University)

Presenter: Prof. WANG, Qian (South China Normal University)

Session Classification: Session 3: Exotic hadrons and candidates

Track Classification: Session 3: Exotic hadrons and candidates