

XYZ - Exotic states with heavy quarks

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Observations of new, narrow charmonium(-like) and bottomonium(-like) states (often referred to as "XYZ" states) at experiments at e+e-colliders such as BaBar, Belle, BESIII have changed our view of quarkonia systems as QCD bound states. Potential models, which were able to predict many conventional states with an accuracy of ~1 MeV, absolutely fail in describing many of the new states. Some of the new narrow states are even charged, therefore cannot represent conventional quarkonium, and are discussed as states of possibly exotic nature (e.g. molecules, tetraquarks, hybrids). Recent results will be reviewed, with emphasis on the Belle experiment. At the end, an outlook to the future project Belle II will be given."