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Exotic hadron spectroscopy results and perspectives in CMS

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Hadron Spectroscopy has experienced a renaissance in the last 15 years thanks to the experimental findings at B-factories, Tevatron and - in the last years - at the LHC. Quarkonium has become again a tool for discoveries of new phenomena in the complex realm of low-energy QCD. The analyses of LHC Run-I data are contributing to provide new experimental observations and measurements for the exotic (quarkonium-like) mesons. Despite of the absence of an hadronic identification, and thanks to its tracking and muon identification capabilities, CMS has provided few important results in this sector of QCD: study of the production of the X(3872) and search for its neutral bottomonium partner, observation of peaking structures into J/psiPhi mass spectrum, observation of double quarkonia production, the search for the unconfirmed X(5568). CMS can continue playing a relevant role with analyses of Run-II data. The aformentioned results will be reviewed in their wider context and the perspectives with Run-II data will be discussed.

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