Contribution ID : **45** Type : **not specified**

Heavy tetraquarks in the relativistic quark model

пятница, 13 ноября 2020 г. 18:30 (30)

We give a review of the calculations of the masses of tetraquarks with two and four heavy quarks in the framework of the relativistic diquark-antidiquark model based on the quasipotential approach. Quasipotentials of quark-quark and diquark-antidiquark interactions are constructed similarly to previous studies of mesons and baryons. All parameters of the model were fixed by meson and baryon properties. Diquarks are considered in the color triplet state and it is assumed that they interact as a whole. The internal structure of diquarks is taken into account by the calculated form factor of the diquark-gluon interaction. Theoretical predictions are compared with the available experimental data. It is argued that the structures in the di-J/ψ mass spectrum observed recently by the LHCb Collaboration can be interpreted as $cc\bar{c}\bar{c}$ tetraquarks.

Primary author(s) : Prof. GALKIN, Vladimir; Prof. FAUSTOV, Rudolf; Ms SAVCHENKO, Elena

Presenter(s) : Prof. GALKIN, Vladimir

Session Classification : Session 11: Heavy quarks

Track Classification : Physics of heavy quarks