

Tetra and pentaquarks from the molecular perspective

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Collaboration

Abstract content

The interaction between hadrons has sometimes the consequence that bound states and resonances are formed, involving four quarks for mesons and five quarks for baryons, although they cluster in the form of more elementary mesons and baryons. I select two examples: the $D^*\bar{D}^*$, $D_s^*\bar{D}_s^*$ interaction leading to some XYZ states in the region of 4000 MeV and the interaction of $\xi\bar{K}$ and coupled channels to give the Ω_c states, in good agreement with some of the recently found experimental states by the LHCb collaboration. Similarly, I shall show predictions for Ω_b states. Finally, I shall show results for the $B^+ \rightarrow J/\psi\Phi K^+$ decay, comparing results for the $\Phi J/\psi$ mass distribution with the measurements and analysis of LHCb, showing the role of the $X(4140)$ and $X(4160)$ resonances and reinterpreting the experimental results.

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