

ccbar pentaquarks by a quark model

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Recent LHCb experiments show us that there are two resonances in the $N\text{-}J/\Psi$ channel, whose spin and parity are most probably $(3/2^-, 5/2^+)$. In this work, we will show that there is a state which gains a large attraction from the color-magnetic interaction in the $uud\bar{c}\bar{c}$ $I(JP)=1/2(3/2^-)$ channel, which appears as a resonance in the $\Lambda_c D\bar{*}$ channel, when one employs a quark model. We also found that there is an equally or more attractive state in the channel with strangeness, $ud\bar{s}\bar{c}\bar{c}$, $I(JP)=0(1/2^-)$. We would like to discuss the possibility to find it as a resonance in the $\Lambda_c\text{-}J/\Psi$ or $\Lambda_c\text{-}\eta_c$ channels.

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