

Y(4260) and Phi(2170) as exotic vector mesons

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The $u\bar{u}c\bar{c}$, $u\bar{u}b\bar{b}$, and $u\bar{u}s\bar{s}$ $J^{PC} = 1^{--}$ states are investigated by a coupled-channel two-meson model. We used the complex scaling method with 14 two-meson channels with an effective hadron interaction originated from interaction between quarks. The coupling between channels is obtained from the quark rearrangement.

We have found a pole each in the $u\bar{u}c\bar{c}$ and in the $u\bar{u}s\bar{s}$ systems. The pole in the hidden charm system appears 1 MeV below the $\bar{D}D_1'$ threshold, 4289 MeV, with a few MeV width. A similar pole appears just below \bar{K}^*K_1 threshold, 2163 MeV, in the hidden strange system. We argue that they are important components of Y(4260) or $\phi(2170)$, respectively, which are considered to be exotic mesons.

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