

# The $\rho B^* \bar{B}^*$ System within the Fixed Center Approximation to The Faddeev Equations

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We study the  $\rho B^* \bar{B}^*$  three-body system solving the Faddeev equations in the fixed center approximation. We assume the  $B^* \bar{B}^*$  system forming a cluster, and in terms of the two-body  $\rho B^*$  unitarized scattering amplitudes in the local Hidden Gauge approach we find a new  $I(J^PC)=1(3^{--})$  state. The mass of the new state corresponds to a two particle invariant mass of the  $\rho B^*$  system close to the resonant energy of the  $B^*(5747)$ , indicating that the role of this  $J=2$  resonance is important in the dynamical generation of the new state.

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