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Correlation functions for $n\bar{D}_{s1}(2460)$ and $n\bar{D}_{s1}(2536)$

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Content

We study the interaction of the n\bar{D}*{s1}(2460) and n\bar{D}*{s1}(2536) systems from the perspective that the D_{s1}(2460) and D_{s1}(2536) states are molecular states of KDˆ{\} and *Kˆ{\}D, respectively. We use an improved version of the fixed center approximation to the Faddeev equations which fulfills exact elastic unitarity at the threshold of the systems. We predict the existence of resonant states below threshold and also determine the scattering length, effective range and correlation functions of these systems, showing that the results contain important information to test the assumed molecular nature of the two D_{s1} states.

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