

Abstract Submitted
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Genuine two-channel calculations of 3-body bound states and resonances¹ JUAN BLANDON, VIATCHESLAV KOKOOLINE, University of Central Florida — We present a method to carry out genuine two-channel calculations of 3-body bound and quasi-bound states. Our model potential consist of two 3-body potential surfaces interacting through a localized coupling. The method allows us to obtain 3-body bound state energies and resonance lifetimes. The method employs the 'slow' variable discretization method [1], and complex absorbing potential for lifetime calculations. It can be used with long-range and short-range potentials. Particularly, it can be used to calculate true 3-body Feshbach resonances, including Efimov-type states.

[1] O. I. Tolstikhin, S. Watanabe, and M. Matsuzawa, J. Phys. B: At. Mol. Opt. Phys. **29**, L389 (1996).

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