

Abstract Submitted
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Jost function description of near threshold resonances¹ I. SIMBOTIN, D. SHU, R. CÔTÉ, University of Connecticut, Department of Physics — The low energy behavior of cross sections for any scattering problem can be drastically affected by the presence of a resonance near the threshold. In this work, we show that any such strong dependence on energy can be accounted for in terms of the much simpler behavior of the Jost function. Although this is an old idea, see [E. J. Heller and W. P. Reinhardt, *Phys. Rev. A* **5**, 757 (1972)], and despite its advantages, it has not been employed widely. However, this method provides not only a theoretical tool for scattering problems in general, but also a convenient numerical approach in practice.

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