

Abstract Submitted
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An integral equation for distorted wave amplitudes¹ LUCA VISINELLI, PAOLO GONDOLO, The University of Utah, Salt Lake City (UT) — We derive a new integral equation that allows the calculation of the scattering or annihilation amplitude of two particles subjected to two potentials when the corresponding amplitude for one potential only is known. We assume that scattering or annihilation occurs through one of the potentials, while the other potential affects the particle wave functions. Our expression is valid for any choice of the distorting potential and for any particle model. Our technique does not require the expansion of the amplitude into partial waves, and allows the study of models that are generally difficult to solve by means of the Schroedinger equation.

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