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Phase Method for the evaluation of Sommerfeld Enhancement

Monday 7 August 2017 17:30 (15 minutes)

In this talk, I will present the application of Calogero's Variable Phase method for the determination of Sommerfeld Enhancement factors relevant for dark matter cross section calculations. In contrast to directly solving the radial Schrodinger equation, the evaluation using the Variable Phase Method offers a rapid and stable evaluation, even for multichannel systems. Time permitting, I will outline strategies for obtaining new analytic results by looking for asymptotic approximations to the variable phase equations.

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