

Abstract for an Invited Paper
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Probing universal few-body dynamics¹

SETH RITTENHOUSE, ITAMP, Harvard-Smithsonian Center for Astrophysics

Almost 40 years ago, Vitaly Efimov predicted a much debated set of universal weakly-bound three-body states. In recent years, many of his predictions have been confirmed and expanded upon including the first measurements of geometric scaling in three-body systems and the prediction and observation of associated four-body states. In this talk I will discuss recent theoretical developments in three-body dynamics that can be used to probe Efimov trimers. First, the dependence of the three-body recombination rate constant on the binding energy of deeply-bound dimer states will be presented. This dependence can modify the width of resonances associated with Efimov trimers. Alternatively, measurement of losses due to three-body recombination can be used to probe the behavior of deeply bound dimers. New theoretical results in RF association of universal trimers will also be presented. The simple golden rule based methods used can easily be extended to describe the association rates observed in new experiments in three-component fermionic gases.

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