UNIVERSAL INSIGHTS INTO FEW-BODY SYSTEMS

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ABSTRACT

Dramatic recent theoretical and experimental progress has been solidifying our understanding of 3-body and 4-body interactions and their intimate connection with the Efimov effect. Even a system of 3 or 4 bosons or fermions with short range forces can be challenging to theory, while at the same time intriguing and broadly-applicable insights have emerged. Recent years have seen rapid advances on the experimental front based on experiments with ultracold atoms, which make use of tunable Fano-Feshbach resonances. My colloquium will discuss these recent developments and some of the puzzles that have been emerging on the experimental front in the field this past year.

BIO

Chris Greene is Professor of Physics at the University of Colorado at Boulder, and a Fellow of JILA. His did his undergraduate work at the University of Nebraska at Lincoln, PhD studies under Ugo Fano at the University of Chicago, and a postdoctoral stint at Stanford with Richard Zare. After 8 years on the faculty at Louisiana State University, he moved to Boulder, where he has worked ever since.