Special Issue

Few-body Physics in Ultracold Quantum Gases

Message from the Guest Editor

The ability to control interatomic interactions in ultracold quantum gases has triggered a broad range of opportunities to explore fundamental few-body systems in a well-controlled matter. This ability enables the prediction and realization of a complex array of quantum phenomena that interconnect a number of different physics subfields, especially atomic, optical, condensed matter, nuclear physics, and chemistry. Few-body systems pose some of the greatest challenges to theorists in atomic physics because of their extremely nonpertubative nature. The rich and fundamental character of few-body interactions can also represent opportunities for exploring novel phases of matter and offers a path for understanding strongly correlated collective phenomena in ultracold quantum gases. In fact, recent experimental efforts have been increasingly designed for the exploration of fundamental few-body aspects in their own right and have provided many observations of the so-called Efimov effect. Few-body physics helps bridge the gap between the two-body physics explored in many ultracold gases and the many-body physics underlying condensed matter.

Guest Editor

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Message from the Editor-in-Chief

The scope of *Atoms* is deliberately wide and encompasses a large part of theoretical and experimental atomic,
molecular, nuclear, and chemical physics in order to encourage cross-disciplinary connections, while supporting the more traditional idea of individual subfields. The journal is also interested in papers concerning
the computation and compilation of data related to applications in the above areas. Details of experimental methods and codes are welcome. Your research is taken seriously and peer-reviewed with care. I encourage you
to contact me or any of the Editorial Board Members for further information.

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