Physics of Impurities in Quantum Gases

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Message from the Guest Editors

Dear Colleagues,

The aim of this Special Issue of Atoms is to contribute to this discussion by highlighting recent advances regarding the physics of impurities in quantum gases. The Special Issue will collect theoretical and experimental works dedicated to fundamental properties and universal aspects of quasiparticles, as well as to applications of the quasiparticle concept in different contexts such as trapped mixtures of bosons or fermions, Rydberg systems, cavity settings, etc. The Special Issue will contain studies of multicomponent setups and quantum mixtures, ranging from the many-body correlated dynamics to ground state properties of few particles, and few-body processes that play a role in many-body systems with impurities. We invite authors to submit original research as well as short pedagogical reviews and communications with technical details that can lead to a substantially improved understanding of the existing theoretical and experimental results.

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