Special Issue

Quantum Many-Body Dynamics in Physics, Chemistry, and Mathematics

Message from the Guest Editors

The Schrödinger equation is central to quantum mechanics and a cornerstone for the description of many fascinating phenomena in AMO, chemical, condensed-matter, and nuclear physics. Quantum many-body dynamics attract an enormous amount of interest in physics, chemistry, and mathematics alike. The purpose of this Special Issue is to amalgamate contributions from researchers actively working on solutions, applications, and theoretical methodologies for the time-dependent Schrödinger equation for few- and many-particle systems. We kindly invite you to contribute manuscripts about the theories, models, or methods themselves or, alternatively, their applications, e.g., to quantum correlations and fluctuations in ultracold atoms and Bose–Einstein condensates or correlated electron-dynamics triggered by light–matter interactions.

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The concept of entropy is traditionally a quantity in physics that has to do with temperature. However, it is now clear that entropy is deeply related to information theory and the process of inference. As such, entropic techniques have found broad application in the sciences.
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