Colloquium

Strategies to design quantum materials with exotic properties

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Unconventional superconductivity with high critical temperatures, topologically non-trivial phases, frustrated magnetism, spin-liquids or the intensively discussed Kitaev phases are a few examples of exotic states in quantum materials. One of the big challenges in quantum physics is the microscopic description of such systems. Moreover, being able to understand them implies the possibility of predicting compounds with desirable properties. In this talk, I will present and discuss strategies for designing quantum materials from first principles and by using statistical methods, and will motivate their possible use for present technological applications such as quantum computing purposes.

Monday, May 30, 2022 04:00pm - 05:00pm
Online

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