Unconventional Superconductivity in Quantum Materials

Monday, 26 August 2024 14:10 (40 minutes)

I will review the concepts of conventional and unconventional superconductivity in quantum materials and explain how this is related to the electronic interactions –or correlations –present in the system. While conventional superconductivity typically emerges in weakly correlated systems, unconventional superconductivity appears in moderately and strongly correlated systems, and continues to puzzle theorists and experimentalists alike. Adopting an exact numerical approach, I will demonstrate how unconventional superconductivity can arise in a correlated system.

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