Stuttgarter Physikalisches ONLINE Kolloquium

Max-Planck-Institut für Festkörperforschung
Max-Planck-Institut für Intelligente Systeme
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Login data will be announced by e-mail and on the colloquium webpage: www.physik.uni-stuttgart.de/aktuelles/kolloquium

Dienstag, 5. Mai 2020 **16.15 Uhr**

Stuttgarter Max-Planck-Institute, Heisenbergstraße 1, 70569 Stuttgart-Büsnau

The d-wave paradigm of unconventional superconductors

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Abstract

As famously introduced in the context of copper oxide superconductors, Cooper pairing of electrons through a d-wave order parameter constitutes a central departure from the conventional microscopic picture of phonon-mediated s-wave superconductivity. For decades, copper oxide superconductors remained the predominant arena for d-wave pairing. In recent years, however, d-wave superconductivity witnesses significant diversification in terms of materials realizations, such as Na-doped cobaltates, pnictides at strong hole doping, and, most recently, infinite layer nickelates as well as strontium ruthenate. In this colloquium, I intend to provide an overview over recents developments, and to work out a future perspective on new d-wave superconductors.