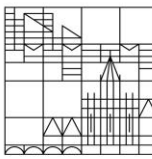


Physikalisches Kolloquium

Universität
Konstanz



Prof. Dr. Manfred Sigrist
ETH Zürich

Di 09.01.24

15:15 Uhr

P 603

im Anschluss Getränke und Snacks

Inversion - a key symmetry for superconductors

For superconductivity the fundamental symmetries inversion and time reversal play a pivotal role in the formation of coherent states of Cooper pairs. The phenomenology of a superconductor is profoundly modified by the absence of at least one of the two symmetries within a material. We focus on how the lack of inversion symmetry influences the structure of Cooper pairs and yields intricate properties in these so- called non-centrosymmetric superconductors. Some of these features cascade even into crystalline materials with inversion centers, which however contain coupled non-centrosymmetric subunits, leading to the class of “locally noncentrosymmetric superconductors”.

Both kinds of superconductors display particularly intriguing properties in the presence of magnetic fields and add a fascinating chapter to the book of unconventional superconductivity.

Host:
Prof. Belzig

Organisation:
Prof. Bechinger

