GRK 2905
Ultrafast
Nanoscopy

Seminar

Friday, July 18, 2025
10:00 h
RUN Auditorium

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Higgs mode in superconductors studied by nonlinear terahertz spectroscopy

Recent developments of experimental techniques based on ultrafast spectroscopy have enabled the access to low energy collective modes in quantum materials in a time-resolved manner. In particular, the amplitude mode of the order parameter in superconductors, called the Higgs amplitude mode, has attracted a growing interest from the viewpoint of non-equilibrium dynamics in symmetry-broken ordered phases. In this presentation, I will introduce the study of the Higgs mode and other collective modes in conventional and unconventional superconductors using various nonlinear terahertz spectroscopic schemes.