



IFMP Seminar

Date: Tuesday, October 20, 2020, at 14:50
REC/C213 (audience capacity: 11)
BigBlueButton:
https://selfservice.zih.tu-dresden.de//link.php?meeting_id=34939&pin=0c2d73c3 (TUD)
https://selfservice.zih.tu-dresden.de/link.php?meeting_id=34939&pin=81cc7691 (external)

Speaker: Yuliia Tymoshenko and Aleksandr Sukhanov
Technische Universität Dresden

Title: Phonons in FeP

Abstract: We present a comprehensive investigation of lattice dynamics in the double-helix antiferromagnet FeP by means of high-resolution time-of-flight neutron spectroscopy and *ab-initio* calculations. We performed detailed analysis of the observed and calculated spectra for all high-symmetry points and high-symmetry directions of the Brillouin zone. We show that the DFT calculations quantitatively capture the essential features of the observed phonons, including both dispersions and scattering intensities. By making use of the detailed intensity comparison between the theory and the data, we were able to identify displacement vectors for the majority of the observed modes.

Host: D. Inosov