APCIP SEMINAR

Laser ARPES on High Temperature Superconductors

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The mechanism of high temperature superconductivity in the copper-based and iron-based superconductors remains a prominent issue in condensed matter physics. Angle-resolved photoemission spectroscopy (ARPES), as a powerful technique to directly probe the electronic structure of materials, has played a key role in studying high temperature superconductors. In this talk, I will first briefly introduce the latest development of laser-based ARPES [1]. I will then report some of our recent laser-ARPES studies on high temperature cuprate superconductors [2] and iron-based superconductors [3-5].

- 1. X. J. Zhou et al., Rep. Prog. Phys. 81, 062101 (2018)
- 2. Cheng Hu, X. J. Zhou et al., Nature Communications 12, 1356 (2021)
- 3. Defa Liu, X. J. Zhou et al., Phys. Rev. X 8, 031033 (2018)
- 4. Cong Li, L. Zhao, X. J. Zhou et al., Phys. Rev. X 10, 031033 (2020)
- 5. Yu Xu, L. Zhao, X. J. Zhou et al., Nature Communications 12, 2840 (2021)

■ ZOOM Webinar

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