

Probing iron-based superconductivity by photoelectrons

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Angle-resolved photoemission spectroscopy (ARPES) has been used extensively in studying electronic structure and superconducting gap of the iron-based superconductors (IBSCs). In this talk, I will present our recent ARPES results on the IBSCs, mainly focus on high-resolution measurements of the superconducting gap of many different IBSCs. Our results strongly suggest that the pairing mechanism of IBSCs is likely to be driven by local antiferromagnetic exchange interactions and collaborative Fermi surface topology, in a similar fashion as in the case of cuprate superconductors.