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ARPES studies on the pairing mechanism of iron-based superconductors

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Angle-resolved photoemission spectroscopy (ARPES) has been used extensively in studying electronic structure and superconducting gap of the iron-based high- temperature superconductors (pnictides). In this talk, I will present our recent ARPES results on these pnictide materials, mainly focus on high-resolution measurements of the superconducting gap function of many different pnictide superconductors. Our results strongly suggest that the pairing mechanism of the pnictides is likely to be driven by short-range antiferromagnetic fluctuations.