

**Laser-Based Angle-Resolved Photoemission Spectroscopy  
and  
Electronic Structure of Cu- and Fe-Based High-Tc Superconductors**

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Angle-Resolved Photoemission Spectroscopy (ARPES) is a powerful tool in probing the electronic structure and many-body effects in high-Tc superconductors and other advanced materials. In this talk, I will present some recent results on three aspects:

- (1). Development of the vacuum ultra-violet (VUV) laser-based ARPES system; It has some unique advantages such as super-high energy resolution (better than 1 meV), super-high photon flux and enhanced bulk sensitivity;
- (2). Some recent results on the electronic structure of Cu-based high temperature superconductors revealed from the VUV laser-based ARPES;
- (3). Electronic structure and superconducting gap of the newly-discovered Fe-based high temperature superconductors.