

NanoARPES facility in Shanghai Synchrotron Radiation Facility and investigation of the Moiré bands in twisted 2D materials

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Amphithéâtre SOLEIL

Spatially resolved angle resolved photoemission spectroscopy (NanoARPES) serves as a powerful tool in the investigation of exfoliated sample flakes, edge/boundary electronic states and etc. In this presentation, we would describe the construction, specification, capability and running of BL07U, the NanoARPES endstation in Shanghai Synchrotron Radiation Facility (SSRF). As an example, we present our work on the magic angle twisted trilayer graphene [1], which clearly resolves the coexistence of the moiré flatbands as well as Dirac bands; our work on the twisted WSe₂ shows the Γ -moiré band together with enhanced band renormalization [2]. Further, we would also describe our preliminary results on the electronic structure evolution in twisted bilayer graphene/hBN heterostructure with back gating, as well as the investigation of TMD materials with vacuum exfoliation [3].

Short Biography: Zhongkai Liu received B.S. in physics from Tsinghua University and Ph. D in Stanford University under the supervision of Prof. Zhi-Xun Shen. After one year experience working as a postdoc in I05, DLS, he started as an assistant/associate professor at ShanghaiTech University. His research interests lie in the photoemission study of topological quantum materials, low dimensional materials and development of synchrotron based spatial resolved ARPES.



Ce séminaire sera suivi d'une pause café

SEMINAIRE

Formalités d'entrée : accès libre dans l'amphi du pavillon d'Accueil.
Si la manifestation a lieu dans le Grand Amphi SOLEIL du Bâtiment Central merci de vous munir d'une pièce d'identité (à échanger à l'accueil contre un badge d'accès).

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