

Scanning Probe Microscopy of Moiré Structures

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In the first part of the talk, I will focus on novel phenomena in moiré structures created by twisting 2D layers. I will discuss the demonstration of reversible local response of domain wall networks using scanning tunneling microscopy in ferroelectric interfaces of marginally twisted WS₂ bilayers. Moreover, in the case of twisted WS₂ bilayers close to 60°, we observe signatures of flat bands and study the influence of atomic relaxation on their band structure. In the second part of the talk, I will discuss our recent work in exploring twisted multilayer graphene systems.

