Interaction effects in 2D crystals probed by Scanning Tunneling Microscopy

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Due to their reduced dimensionality and screening, interaction effects are expected to play an increasingly important role in defining the electronic properties of atomically thin crystals. Yet, experimentally it turned out quite challenging to clearly identify and measure the strength of such interaction effects. In this talk, I will discuss our scanning tunneling microscopy and spectroscopy results on two systems (graphene nanoribbons and TaS_2) that might shed some light on the nature and strength of such effects in 2D materials.