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Orbital magnetism and flat bands in magnetic field

Wednesday 7 January 2026 08:30 (35 minutes)

I will discuss recent theoretical progress in understanding the role played by the electron-electron interactions in orbital magnetism, and highlight results obtained for the flat bands of the magic angle twisted bilayer graphene, as well as for some twisted transition metal dichalcogenides. I will also discuss the effect of the external out-of-plane magnetic field on the correlated ground states and their excitations, and compare the ensuing Landau level degeneracies with the experimental observations.

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