

IPC - Oct 26, 2020 - Pablo Jarillo-Herrero

Meeting ID: 939 0317 8346

Passcode:326163



ISRAEL PHYSICS COLLOQUIUM

Prof. Pablo Jarillo-Herrero
MIT, USA

Monday | October 26, 2020 | 15:55

The magic of moiré quantum matter

The understanding of strongly-correlated quantum matter has challenged physicists for decades. Such difficulties have stimulated new research paradigms, such as ultra-cold atom lattices for simulating quantum materials. In this talk I will present a new platform to investigate strongly correlated physics, namely moiré quantum matter. In particular, I will show that when two graphene sheets are twisted by an angle close to the theoretically predicted 'magic angle', the resulting flat band structure near the Dirac point gives rise to a strongly-correlated electronic system. These flat bands systems exhibit a plethora of quantum phases, such as correlated insulators, superconductivity, magnetism, Chern insulators, and more. Furthermore, it is possible to extend the moiré quantum matter paradigm to systems beyond magic angle graphene, and I will present an outlook of some exciting directions in this emerging field.

JOIN MEETING

Meeting ID: 939 0317 8346

Password: 326163

[Add to Google Calendar](#)



Install Zoom

zoom.us/download

or install the Zoom mobile phone app

More Information

Hadar Alper

Hadar.alper@weizmann.ac.il

www.israelphysicalsociety.org

Newsletter Items: