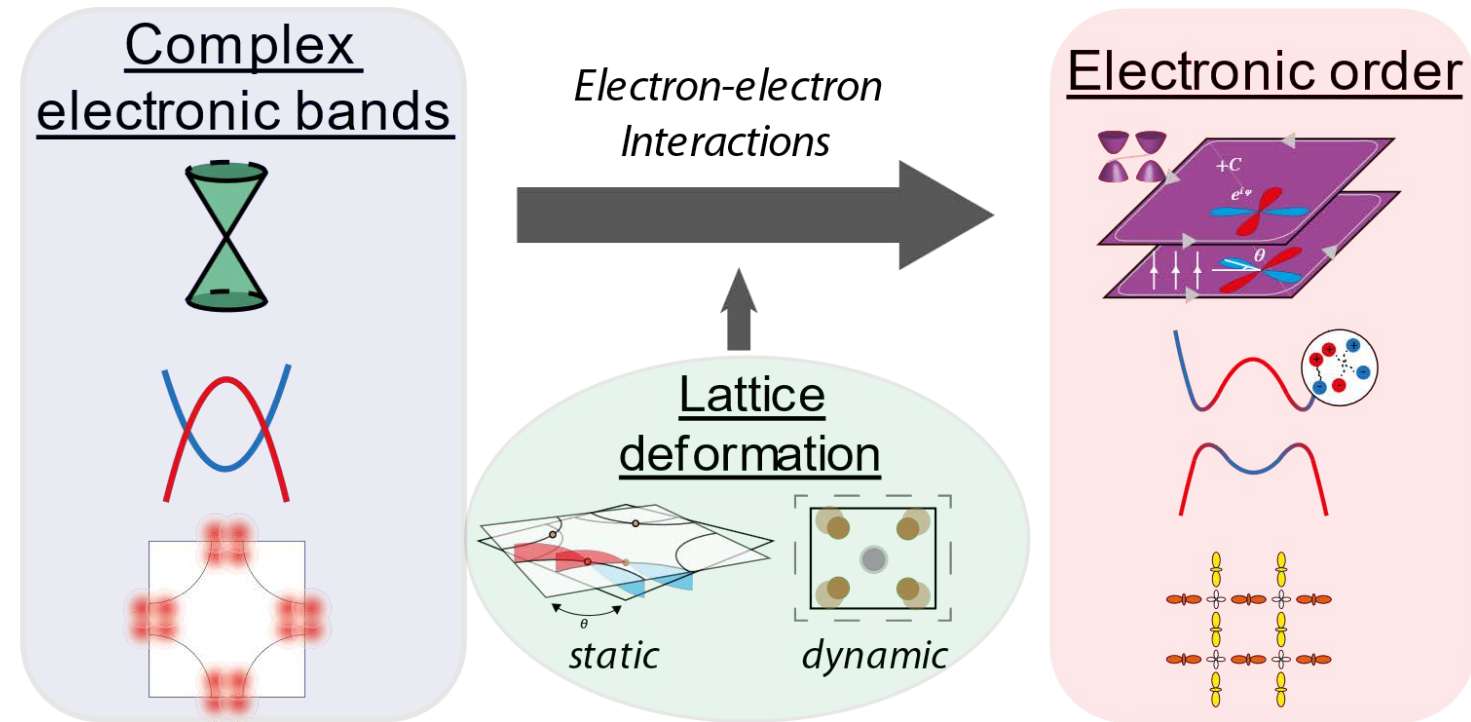


Volkov group: Theory of Quantum Materials

- Strong electronic correlations
- Electron-lattice interplay
- Plans: Quantum sensing of correlated 2D materials/interfaces



Volkov group: Theory of Quantum Materials

- 2D materials/interfaces

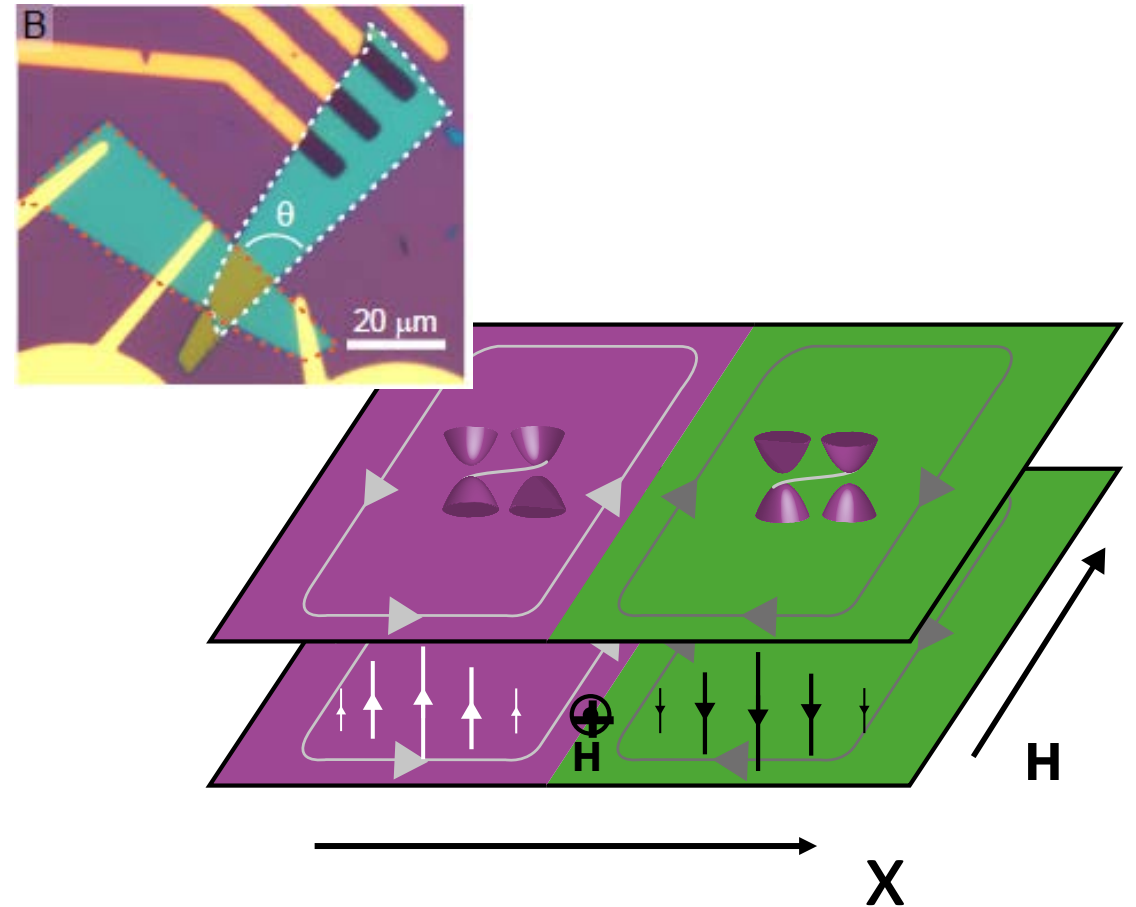
- Engineering quantum electrons/quasiparticles
- Twistronics to realize topological states

- Quantum coherent orders

- Superconductivity, Excitonic condensates

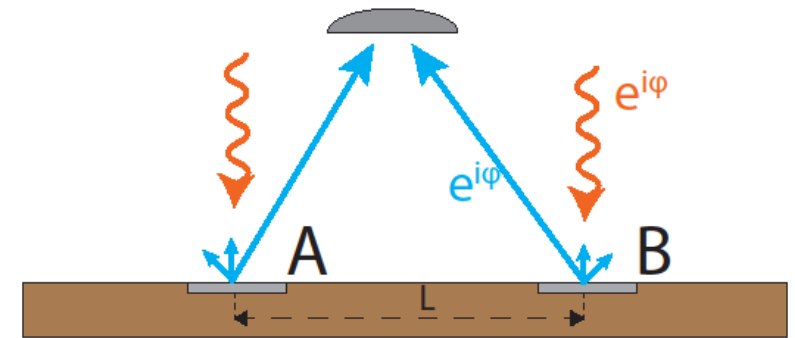
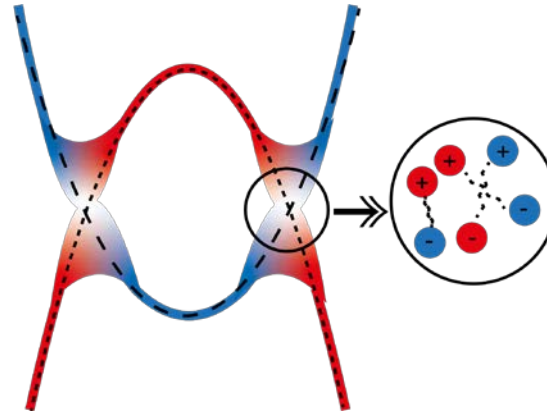
- Quantum sensing

- FE fluctuations with NV centers



Volkov group: Theory of Quantum Materials

- 2D materials/interfaces
 - Engineering quantum electrons/quasiparticles
- **Quantum coherent orders**
 - Superconductivity, Excitonic condensates
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Non-local ARPES: Collaboration w/Carlos Trallero

Volkov group: Theory of Quantum Materials

- 2D materials/interfaces
 - Engineering quantum electrons/quasiparticles
- Quantum coherent orders
 - Superconductivity, Excitons
- **Quantum sensing**
 - FE fluctuations with NV centers
(collaboration w/R. Sahay[Harvard] and S. Chatterjee [CMU])

