

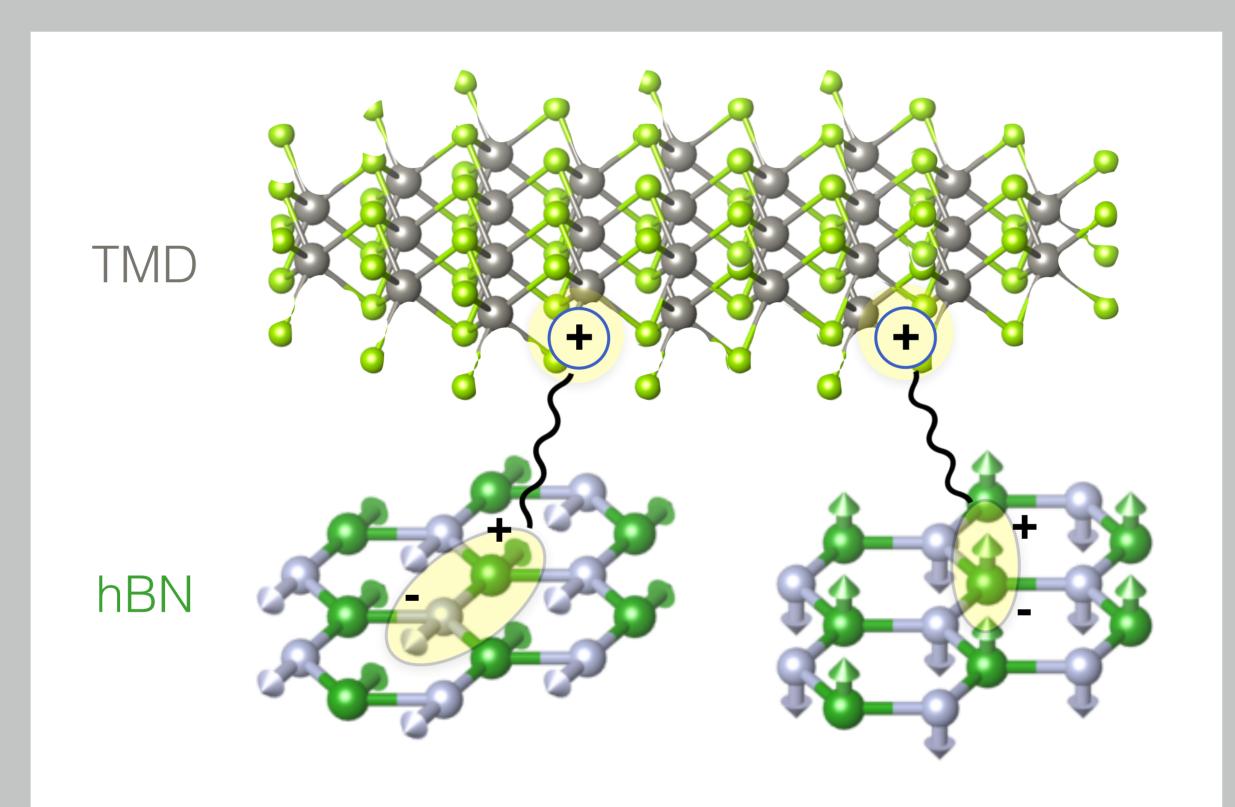
UNIVERSITÉ DE GENÈVE

Department of Quantum Matter Physics

## Electron-phonon coupling across the TMD/hBN van der Waals interface

Electronic states in a twodimensional system and bosonic excitations in an adjacent substrate may be strongly coupled. These interfacial interactions are still poorly characterized in van der Waals heterostructures, where one would expect that they play a marginal role. Here, we investigate the nature and magnitude of such interactions in the electronic states of a  $WS_2/hBN$  heterostructure via angle-resolved photoelectron spectroscopy. We resolve dispersing

Gianmarco Gatti (group of prof. Baumberger)



satellites separated from the intense quasiparticle WS<sub>2</sub> valence band by energies comparable to  $\Gamma$  phonon ing entrepreneurs and provide tips modes in hBN. We derive a spectral function model to describe the interfacial coupling between charges in the WS<sub>2</sub> layer and the lattice vibrations of the polar hBN substrate, which we employ to provide a cess in the entrepreneurial journey. qualitative estimation of the interaction strength. Finally, we evaluate the entity of this coupling at large out-of-plane WS<sub>2</sub>-to-hBN distance in a WS<sub>2</sub>/graphite/hBN heterostructure.

### **DQMP FORUM**

Tuesday, June 25<sup>th</sup>, 2024 – **12h45** !! Auditoire Stückelberg

Coffee and tea will be available from 12h30 at the entrance of the Auditoire Reduce waste and bring your own coffee cup!

In this presentation, I will briefly describe the basics of launching a startup and some of its benefits, including how startups create career opportunities for scientists and facilitate the development and commercialization of innovative technologies that tackle today's biggest challenges. Many of these innovations, particularly in deep tech, originate in academic research, forming the foundation for original business ideas and new ventures. I will also present how UNIGE supports aspiron maximizing your chances of suc-



### From Lab to Launch: Entrepreneurship for Scientific Founders

**Julien Levallois** 

(Science Innovation Hub, Faculty of Science & Research and Grants Office )



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