

**28th October 2021, 3:00 pm**

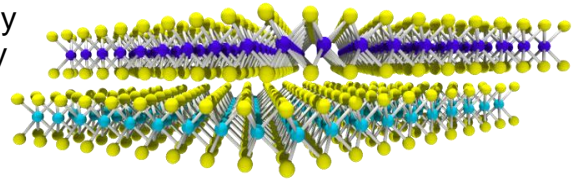
**Michael Kempf, Annika Bergmann, Johannes Krause**

**Two-Dimensional Crystals and Heterostructures**

## Two-Dimensional Crystals and Heterostructures - An Overview

Van-der-Waals crystals have revealed many intriguing properties in recent years. Especially transition metal dichalcogenides (TMDCs) have plenty of optical properties to explore.

One of their most prominent characteristics is the nature of the optical bandgap: Bulk TMDCs are indirect bandgap semiconductors, whereas TMDC monolayers possess direct bandgaps which makes them promising candidates for optoelectronic devices.



Stacking monolayers of different TMDC materials forms heterostructures. They represent a new class of materials that offers tunability of its electronic properties. We give a brief overview of our group, our research interests and measurement techniques. These include photoluminescence and Raman spectroscopy, Kerr measurements as well as contacting techniques.

Talk: English

Slides: English

**Location:** Great Lecture Hall, HS1, Institute for Physics, Albert-Einstein Str. 24

Hybrid-Meeting: <https://uni-rostock-de.zoom.us/j/62977068634>