

CONDENSED MATTER THEORY SEMINAR

Subject: **Lattice, correlations and order: Controlling (with) Dirac fermions**

Speaker: **Prof. Dr. Tim Wehling (University of Bremen)**

Date & time: **Friday, May 14th, 2021 at 3:15 p.m.**

Venue: **Online Seminar**

The interplay of electronic correlations, lattice degrees of freedom and topology presents a rich ground for the realization of exotic states of quantum matter. Here, we discuss how to disentangle and how to control this interplay on the atomic scale. We will discuss superlattice engineering as pathway to create and control correlated Dirac fermions via confinement and deconfinement approaches. In turn, we show how "Diracness" can control the spontaneous emergence of superlattices in charge density wave compounds.