



IFMP Seminar

Date: Tuesday, January 12, 2020, at 14:50

BigBlueButton:

<https://selfservice.zih.tu-dresden.de/l/link.php?m=55477&p=23026ca3> (TUD)

<https://selfservice.zih.tu-dresden.de/l/link.php?m=55477&p=376250f5> (external)

Speaker: **Andy Thomas**

Technische Universität Dresden

Title: **Transport in quantum devices**

Abstract: I will present our present research activities using several exemplifications, where we investigated the charge, spin and heat transport in nanostructures. These structures are either prepared by a combination of sputter and atomic layer deposition or focussed ion-beam cutting and subsequent lithography techniques. Recently, the investigation of topologically non-trivial materials moved into the center of our attention. I will use the magnetic Weyl semimetal $\text{Co}_3\text{Sn}_2\text{S}_2$ as an example to demonstrate our studies in this field. This will be followed by atomic layer deposited yttrium iron garnet (YIG), which is planned to be used on corrugated surfaces. Atomic layer deposition is an ideal tool to prepare these kind of structures due to its ability to prepare uniform and conformal thin films even on complex 3D templates due to a surfaced limited reaction. Then, the curved YIG can act as an illustration of the future work of my group on real space topological properties.

Host: J. Geck