



# Seminarankündigung

**Dienstag, 5. Juli 2016**

**17:15 Uhr**

**ZNN, Seminarraum EG 0.001**

## **“Carbon wonderland from an engineering perspective”**

The talk will introduce some of the application-driven topics of interest in our group. Carbon-based materials like nanotubes and graphene in possible “more-than Moore” applications will be reviewed. The requirements for the use in future transistor devices and interconnects is analyzed and the discussion is extended to applications which are not ultimately scaled to the smallest size. Efforts to established controlled nanotube growth will be discussed in the context of the BMBF-sponsored project WireControl. In addition, application of graphenic carbon in capacitors, diodes and as hermitically tight x-ray transmission windows will be demonstrated. The implementation of carbon contacts in diodes improves the reliability against electrostatic discharge damage (ESD) by 8 orders of magnitude and the high mechanical resilience and low x-ray absorption of graphenic carbon allows for the first time the replacement of toxic Beryllium in x-ray windows.

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