

Charge and Spin Injection into Graphene Allotropes

Motivation: graphene is a new and exceptional material that might help to enter a post-silicon era. There is a great interest to understand charge and spin transport with the massless Dirac Fermions in this material.



Bachelor and Master Thesis in the group of Prof Kläui

System: nanodevices made of different graphene allotropes such as turbostratic graphene, graphene nanoribbons and doped/undoped single layer graphene.

- **Experiments:** characterization of graphene allotropes; nanofabrication of spintronic devices; investigation of charge and spin transport in these nanodevices.
- **Techniques:** charge transport measurements, electrostatic gating, spin injection and detection, non-local spin valve, e-beam and UV-lithography, atomic force microscopy (AFM), magnetic force microscopy (MFM), Raman spectroscopy etc..



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