



# Seminarankündigung

**Dienstag, 28. Oktober 2014  
15:00 Uhr**

**WSI, Seminarraum S 101**

## **“Towards single-molecule NMR using color centers in diamond”**

This talk will be an introduction to the scientific aims of my Emmy-Noether research group, which has recently been established at the Walter Schottky Institute.

Its core goal will be NMR spectroscopy on single molecules. This ambitious vision has recently become a realistic prospect by the use of NV centers in diamond as atomic-size sensors for magnetic fields.

As an introduction, I will discuss recent proof-of-principle experiments, which demonstrate that this scheme can indeed detect NMR signals from nanoscale objects of the size of a single macromolecule. Equally, I will present more recent results on magnetic resonance imaging, using a single NV center as a scanning probe to detect NMR signals with a spatial resolution in the 10nm range.

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