



# Seminarankündigung

**Dienstag, 12. Juli 2011  
17:15 Uhr**

**WSI, Seminarraum S 101**

## **“Towards nano-MRI in mesoscopic transport systems”**

**Abstract:** Over the last 20 years, researchers have been making steady progress improving the sensitivity of force-detected magnetic resonance. Sensitivity has doubled roughly every 8 months and presently surpasses the sensitivity of conventional, inductive nuclear magnetic resonance detectors by 8 orders of magnitude. In 2009, IBM researchers demonstrated the promise of these developments by using magnetic resonance force microscopy (MRFM) to capture 3D images of individual virus particles with a resolution better than 10 nm. I will describe new efforts to apply this technique to the small ensembles of nuclear spins contained in semiconductor nanostructures such as quantum wells, nanowires, and quantum dots.

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