Seminar: Hard Condensed Matter Theory

JOHANNES GUTENBERG UNIVERSITÄT MAINZ

Room: Galilei Raum, 01-128 (Staudinger Weg 9)
Time: November 29th, 2016 at 14:00

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Oxygen-vacancy driven tunnelling spintronics across MgO

We reconsider the conservation of an electron's spin and symmetry as it undergoes solid-state tunnelling across MgO from the standpoint of oxygen vacancies. The resulting ground and excited localized states experimentally alter the magnetic tunnel junction's (MTJ) magnetotransport. Our ab-initio calculations of how these states impact tunnelling spintronics hint at how small a MTJ may laterally be. Finally, we will present first magnetotransport results while the MTJ's electrodes and barrier absorb soft x-rays with synchrotron-grade brilliance.

All interested are cordially welcome!
