

**A microscopic view of atomic and molecular contacts:
Magnetoresistance, switching, forces**

Richard Berndt

Institut für Experimentelle und Angewandte Physik, Christian-Albrechts-Universität
zu Kiel, Germany

The electron transport through single atoms and molecules is investigated with low-temperature scanning probe microscopy. In the experiments, which aim at maximizing the control over the junction properties, the conductance and the acting force are probed. The talk will address the magnetoresistance of single adsorbed metal atoms and molecular switches including spin state switching.

Keywords: contact, single molecule, single atom, magnetoresistance, atomic force microscopy, spin crossover, Kondo effect