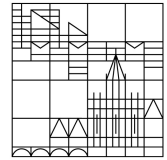


Physikalisches Kolloquium

Universität
Konstanz



Di 16.11.21
15:15 Uhr
A 701



Antrittsvorlesung

Prof. Dr. Martina Müller
FB Physik, Universität Konstanz

Aller Anfang...
Allem Anfang...



Of Oxides and Interfaces - stories told by electrons

The tunability of the oxygen content in complex oxide heterostructures has emerged as a key to deliberately set distinct functional phases and emerging electronic properties. I present routes on how to control oxygen-driven redox mechanisms in ultrathin ferro(i)magnetic and ferroelectric oxide films. I will address the growth and control of metastable EuO oxide phases, phase transitions of binary Fe oxides by oxygen migration as well as the role of interfacial oxide exchange in ferroelectric HfO₂ based capacitors - uncovered by the unique capabilities of photoelectron spectroscopy and in particular using hard X-rays.