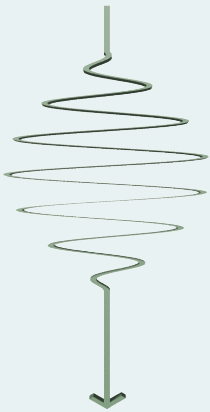


September 27th, 2013 - 15:00

Seminar Room IV, CFEL (Bldg. 99, 01.111)



Max Planck
Research
Department
for
**Structural
Dynamics**



SEMINAR

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**Spin spirals and charge textures in
transition-metal-oxide heterostructures
discovered by resonant x-ray scattering**

The Fermi surface of a metal, which determines most of its macroscopic properties, can become unstable at low temperatures to the formation of spin or charge density waves, superconductivity, or other collective electronic ordering phenomena. Understanding and tailoring these ordered states in transition-metal-oxides using hetero-epitaxial growth techniques has become a major force in condensed matter research, but unraveling their microscopic details experimentally remains a challenge.

In this talk, I will present evidence of novel spin and charge density wave order in nickelate and cuprate heterostructures, respectively. Using the powerful technique of resonant x-ray scattering, the nature of these ordered patterns will be uncovered. Finally, a potential outlook of further controlling these states will be presented.



Host: Michael Först, MPSPD-CFEL