

MAX-PLANCK-UBC CENTRE FOR QUANTUM MATERIALS



INTERNATIONAL SUMMER SCHOOL

SURFACES AND INTERFACES IN CORRELATED OXIDES

AUGUST 29, 2011 - SEPTEMBER 1, 2011 VANCOUVER, CANADA

The aim of the summer school is to familiarize PhD students and junior postdocs with the physical phenomena observed in solid-state systems with reduced dimensions, with an emphasis on surfaces and interfaces in correlated oxides. The state-of-the art methods to manufacture, characterize and theoretically describe such materials will be presented in pedagogical, comprehensive lectures by leading experts in the field. It will also be discussed, how new phenomena and applications arise by elaborate tailoring of novel systems. The presented topics comprise:

Pulsed-laser deposition and molecular beam epitaxy

Resonant elastic and inelastic x-ray scattering and reflectivity

Transmission-electron microscopy and EELS

Novel functionalities and correlated oxide electronics

Transition metal oxide electronic structure and properties

Scanning-tunneling spectroscopy

Density functional and model Hamiltonian methods

Photoemission spectroscopy

Neutron reflectivity

INVITED SPEAKERS

P. Abbamonte, University of Illinois

M. Berciu, UBC

A. Boris, MPI-FKF

G. Botton, McMaster University

R. Claessen, Universität Würzburg

I. Folk, UBC

G. Ghiringhelli, Politecnico di Milano

M. Haverkort, MPI-FKF

B. Keimer, MPI-FKF

D. Khomskii, Universität zu Köln

R. Kiefl, UBC

T. Kopp, Universität Augsburg

J. Mannhart, MPI-FKF

Y. Pennec, UBC

D. Schlom, Cornell University

I. Vrejoiu, MPI-MSP

Vladimir Hinkov Ilya Elfimov George Sawatzky

ORGANIZERS

Max-Planck / UBC Centre

for Quantum Materials

FOR MORE INFORMATION & REGISTRATION VISIT http://www.mpg-ubc.ubc.ca/school2011.html

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