

Outreach Workshop on Functional Materials

Thursday 19th September 2013

Organizers: Z. Salman, E. Morenzoni, C. Niedermayer

Paul Scherrer Institut, Villigen, Switzerland

09:00-12:30 Session 1

- 09:30-10:00 Strain effects in correlated transition metal oxides from first principles
Claude Ederer (ETH Zurich)
- 10:00-10:30 Soft x-ray photoemission spectroscopy on buried interfaces
Claudia Cancellieri (PSI, SLS)
- 10:30-10:45 Interplay between superconductivity and magnetism in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ / $\text{La}_{0.67}\text{Ca}_{0.33}\text{MnO}_3$ heterostructures
Saikat Das (Department of Physics and Fribourg Center for Nanomaterials, University of Fribourg, Chemin du Musée 3, CH-1700 Fribourg, Switzerland)

10:45-11:15 Coffee

- 11:05-11:35 Orthorhombic LuMnO_3 thin films, a multifunctional multiferroic
Christof Schneider (PSI)
- 11:35-11:50 XMCD/XLD Study of the Magnetoelectric Coupling Mechanism in the Multiferroic Composite Co/PMN-PT(011)
Jakoba Heidler (PSI, SLS, Villigen)
- 11:50-12:05 Muon-spin Relaxation Studies of Diffusion Processes in Battery Materials
Martin Mansson (LQM, EPF Lausanne)

12:05-14:30 Lunch

14:30-18:00 Session 2

- 14:30-15:00 Lithium Transport through Nanosized Amorphous Silicon Layers
Erwin Hueger (TU-Clausthal)
- 15:00-15:30 Using muons as microscopic spin probes for organic devices
Laura Nuccio (University of Fribourg)
- 15:30-15:45 Single-Ion Magnets: Playing with Molecule-Substrate Interactions
Jan Gui-Hyon Dreiser (Ecole Polytechnique Federale de Lausanne and PSI)

15:45-16:05 Coffee

- 16:05-16:20 Phase change in stacked chalcogenide layers
Alin Velea (PSI)
- 16:20-16:35 Electronic structure of impurity systems by resonant soft-X-ray ARPES: Application to the diluted magnetic semiconductor GaMnAs

Vladimir Strocov (SLS, PSI)

16:45-16:50 Electron Dynamics in TiO₂ Nanoparticles Study by High Repetition Rate Laser
Pump / X-ray Probe Technique
*Mercedes Hannelore Rittmann-Frank (Laboratoire de Spectroscopie Ultrarapide,
Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland)*

16:50-18:00 2nd Meeting of the JRA in FP7-II