# **Scientific Programme**

#### Tuesday, September 25

Hour	
19:00	Registration
19:30	Registration and Get-together Party
20:00	
20:30	
21:00	

## Wednesday, September 26

8:30 - 9:00	Opening
	Carbon Nanostructures I
9:00 - 9:45	A Geim - Graphene: exploring carbon flatland.
9:45 – 10:20	B Verbeck - Fullerene-cubane: X-ray scattering experiments and Monte-Carlo simulations
10:20 - 10:40	J Lopes dos Santos - Graphene bilayer with a twist: electronic structure
10:40 - 11:00	N Peres - Effects of disorder in the electronic properties of graphene
11:00 – 11:30	Coffee Break
	Carbon Nanostructures II
11:30 – 12:10	M Katsnelson - Graphene: New bridge between condensed matter physics and quantum electrodynamics
12:10 – 12:45	J Haruyama - High-Tc superconductivity and one-dimensional electron correlation in carbon nanotubes
12:45 – 13:00	E Castro - Localized states at zigzag edges of bilayer graphene
13:00 - 14:30	Lunch
	Orbital and Charge Ordering I
14:30 – 15:20	L Brey - Charge, orbital and spin order in manganites and their interfaces
15:20 – 16:00	J Kreisel - Raman scattering of rare earth nickelates
16:00 - 16:30	Coffee Breack
	Multiferroics
16:30 – 17:15	W Prellier - Magnetic oxides superlattices: a step towards artificially grown multiferroics
17:15 – 18:00	M Kenzelmann - Ferroelectricity in magnetic insulators with competing interactions
18:15 – 20:00	Poster Session

### Thursday, September 27

	Theory I
9:00 - 9:40	K Binder - Monte-Carlo simulations of phase transitions in nanosystems
9:40 – 10:20	J Junquera - From 180 degree stripe domains to more exotic patterns of polarization in ferroelectric nanostructures. A first principle view
10:20 – 11:00	X Gonze - First-principles dynamical properties of solids and nanostructures with ABINITO
11:00 – 11:30	Coffee Break

	Theory II
11:30 – 12:10	M Dove - Dynamics of framework structures
12:10 – 12:40	J M Perez-Mato - <i>Multidegeneracy and sliding mode in high-pressure phases</i> of Cs and Rb
12:40 – 13:00	A Troster - Phase transitions in spin models: new results on obtained from Wang-Landau simulations in Fourier space
13:00 – 14:30	Lunch
	High Tc Superconductors I
14:30 – 15:20	Y Sidis - Magnetic properties of unconventional superconductors and parent materials
15:20 – 15:40	Y Pogorelov - Collapse of quasiparticle spectrum near antinodal points in d- wave superconductors
15:40 – 16:00	L Benfatto - Signature of Kosterlitz-Thouless behavior in layered superconductors: the role of the vortex-core energy
16:00 - 16:30	Coffee Breack
	Orbital and Charge Ordering II
16:30 – 17:20	N Christensen - Quantum dynamics of spins on a square lattice
17:20 – 17:45	J Schlappa - Observation of charge and orbital order in magnetite using resonant soft x-ray diffraction at Fe L2,3-edge
17:45 – 18:10	J Salafranca- Magnetic and transport properties of manganite heterostructures
18:10 – 18:30	A Lopes - Local probe evidences for electrical polarization in charge ordered <i>Pr</i> <sub>1-x</sub> Ca <sub>x</sub> MnO <sub>3</sub> manganites
19:30 – 20:30	Dinner
20:30 - 22:00	Round Table 'Multiferroics'

## Friday, September 28

	Ferroelectric Relaxors
9:00 - 9:45	P Gehring - Structure and dynamics of lead-based relaxor ferroelectrics
9:45 – 10:25	J Petzelt - Dielectric response and polar phonon dynamics in relaxor ferroelectrics
10:25 – 11:00	J Hlinka - Dynamics properties of relaxors: waterfall effect in revisited
11:00 – 11:30	Coffee Break
	Advances in Experimental Techniques
11:30 – 12:10	J Kulda - Neutron three-axis spectrometry beyond its conventional limits
12:10 – 12:35	I Fischer - Inelastic X-ray scattering from polycrystalline materials
12:35 – 13:00	V N Strocov - Soft-X-Ray RIXS and ARPES at high resolution: ADRESS beamline at Swiss Light Source
13:00 – 14:30	Lunch
	Phase Transitions
14:30 – 15:00	T Janssen - Phase transitions in aperiodic crystals
15:00 – 15:20	M Fontana - Relation between non linear optical properties and the structure of defects in doped LiNbO <sub>3</sub>
15:20 – 15:40	M Kempa - <i>High pressure lattice dynamics of PbTiO</i> ₃
15:40 – 16:00	P Vilarinho - Doping and oxygen partial pressure effects on the improper ferroelastic phase transition in SrTiO₃
16:00 – 16:30	Coffee Breack
	High Tc Superconductors II
16:30 – 17:15	D Manske - Spin fluctuation theory for high-Tc cuprates: a status report
17:15 – 18:00	M Shi - ARPES on High Tc superconductors
18:00 – 18:35	E Cappelluti - High-Tc superconductivity in unbalanced systems
20:00 - 23:00	Conference Dinner

Saturday, September 29
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	Nanosciences I
9:00 - 9:45	J Scott - Dynamics of ferroelectric nanostructures
9:45 – 10:20	E Lacaze - Ordering on a crystalline substrate: from the monolayer to the liquid crystal bulk
10:20 - 10:40	B Toudic - Self-organization and structural instabilities in nanoporous aperiodic crystals
10:40 – 11:00	W Schranz - Glass transition of salol in nanoporous confinement
11:00 – 11:30	Coffee Break
	Nanosciences II
11:30 – 12:10	P Ghosez - Unexpected coupling between ferroelectric and antiferrodistortive instabilities in PbTiO3/SrTiO3 multilayers
12:10 – 12:35	D Twarog - Surface waves and resonances in auxetic materials. Effect of Surface Layers
12:35 – 13:00	S. Ciuchi - Dynamics of electrons at organic/dielectric interfaces: the physics of organic transistors
13:00 – 13:15	Closing
13:30 – 14:30	Lunch

15:00 – 18:00	City guided tour (Depending on participants' number)
19:00 – 22:00	Dinner cruise (Depending on participants' number)