

# Programme

## **Sunday, September 15, 2013**

18:00	Registration
19:00	Welcome reception

## Monday, September 16, 2013

08:30 Registration

08:45 Opening

### Multiferroics I

09:00 **Nicola Spaldin**  
*Cosmic strings in multiferroics*

09:40 **Pierre Tolédano**  
*Magnetoelectric effects in antiferromagnets, weak ferromagnets and magnetic monopole-like systems*

10:20 **Annette Busmann-Holder**  
*EuTiO<sub>3</sub>: an almost multiferroic material with surprising novel strong spin-lattice coupling at elevated temperatures*

10:45 Coffee break

### Phonons, magnons and electromagnons I

11:15 **Standa Kamba**  
*Electromagnons: Electrically active spin excitations*

11:55 **Przemyslaw Piekarczyk**  
*Lattice dynamics in the rare-earth crystals and nanostructures*

12:20 Lunch

14:00 **Jirka Hlinka**  
*Unfolded phonon dispersion of antiferroelectric PbZrO<sub>3</sub>*

14:25 **Istvan Kezsmarki**  
*Novel optical phenomena in multiferroics*

14:50 **Peter Babkevich**  
*LiErF<sub>4</sub>: a model dipolar-coupled antiferromagnet*

15:15 **Alexandre Ivanov**  
*Phonon dispersion in symmetry related crystal structures: metallic phases in Sn*

15:40 Coffee break

### Materials at extreme pressure

16:10 **Sergio Speziale**  
*The elastic anisotropy of dense materials at extreme conditions: Experimental approaches and implications for deep Earth geophysics*

16:50 **Mael Guennou**  
*Combined instabilities of perovskites under pressure: BiMnO<sub>3</sub> and related Bi-based perovskites*

17:30 **J. Agostinho Moreira**  
*Unraveling the effect of high pressure in rare-earth manganites*

17:55 **Andreas Tröster**  
*High Pressure Landau Theory Applied to Strontium Titanate*

18:30 Wine/Beer Poster session

## Tuesday, September 17, 2013

08:30 Registration

### Amorphous, liquid and soft matter

- 09:00 **Gerhard Gruebel**  
*Local Order in Liquids and Glasses*
- 09:40 **Leif Eric Hintzsche**  
*Defect states at c-Si/a-Si<sub>3</sub>N<sub>x</sub>H<sub>y</sub> interfaces*
- 10:05 **Bogdan Sepiol**  
*Atomic diffusion in network-forming glasses studied with X-ray photon correlation spectroscopy*
- 10:30 **Vasily Artemov**  
*Proton dynamics in liquid water and ice*

10:55 Coffee break

### Relaxors

- 11:25 **Francesco Cordero**  
*Polar and antiferrodistortive modes and their coupling in PZT by dielectric and anelastic measurements*

12:05 Lunch

- 14:00 **Marco Deluca**  
*Raman spectroscopy of lead-free relaxor ceramics*
- 14:40 **Rasa Pirc**  
*From lattice model to quantitative theory of relaxor ferroelectrics*
- 15:05 **Anna Böhmer**  
*Nematic susceptibility of hole- and electron-doped BaFe<sub>2</sub>As<sub>2</sub> iron-based Superconductors*
- 15:30 **Jan Petzelt**  
*Broadband dielectric spectroscopy of Ba(Zr,Ti)O<sub>3</sub>: dynamics of relaxors and diffuse ferroelectrics*

15:55 Coffee break

### Carbon-based materials I

- 16:25 **Brian LeRoy**  
*Imaging local electronic properties of graphene*
- 17:05 **Janina Maultzsch**  
*Resonance behavior of defect-induced Raman modes in carbon nanotubes*
- 17:45 **Miro Haluška**  
*Monitoring the fabrication process flow of SWCNT field effect transistors using Raman spectroscopy*

18:30 **Advisory Board Meeting**

## Wednesday, September 18, 2013

08:30 Registration

### Phonons, magnons and electromagnons II

09:00 **Alois Loidl**

*Electromagnons*

09:40 **Uladzislau Dziom**

*Optical activity of electromagnon in multiferroic manganite*

10:05 **Laura Chaix**

*THz Magnetoelectric Atomic Rotations in the Chiral Compound*

*Ba<sub>3</sub>NbFe<sub>3</sub>Si<sub>2</sub>O<sub>14</sub>*

10:30 Coffee break

11:00 **Michael Leitner**

*Temperature-dependent phonons in Fe: Implications on thermodynamics and diffusion*

11:25 **Björn Wehinger**

*Lattice dynamics of silica polymorphs*

11:50 **Piotr Zielinski**

*Dynamics of curved surfaces. True and leaky surface waves in cylindrical cavities*

12:15 **Cene Filipic**

*Polarons in crystalline perfluorotetradecanoic acid monohydrate*

12:40 Lunch

### Advances in experimental techniques and theory

14:20 **Kai Rossnagel**

*Shooting electronic structure movies with time-resolved photoemission*

15:00 **Michael A. Carpenter**

*Elastic and anelastic relaxations associated with phase transitions in ferroic and multiferroic perovskites*

15:40 **Georg Kresse**

*Methods beyond DFT: current status and future developments*

16:20 Coffee break

### Carbon-based materials II

16:50 **Ludger Wirtz**

*Graphene and graphite intercalation compounds: dependence of the phonon dispersion on the environment*

17:30 **Jannik Meyer**

*Exploring low-dimensional nano-carbon materials by high-resolution microscopy*

20:00 **Conference dinner**

## Thursday, September 19, 2013

Superconductors	
09:00	<b>Philippe Bourges</b> <i>Novel magnetism in high-T<sub>c</sub> copper oxides superconductors</i>
09:40	<b>Jitae Park</b> <i>Resonant magnetic excitations in iron-based superconductors</i>
10:20	<b>Christoph Meingast</b> <i>Thermodynamic study of the magneto-structural and superconducting transitions in Co-doped BaFe<sub>2</sub>As<sub>2</sub></i>

10:45 Coffee break

11:15	<b>Jozef T. Devreese</b> <i>Mechanisms of superconductivity in strontium titanate and in a LaAlO<sub>3</sub>-SrTiO<sub>3</sub> heterostructure</i>
11:40	<b>Vladimir Kozhevnikov</b> <i>Nonlocal effect and dimensions of Cooper pairs in Pippard superconductors</i>

12:05 Refreshments

Multiferroics II	
13:00	<b>Manfred Fiebig</b> <i>Extended magnetoelectric functionalities in improper ferroelectrics</i>
13:40	<b>Rui Vilarinho Silva</b> <i>Competing magnetic interactions and Spin-Phonon Coupling in Magnetoelectric Y-Substituted GdMnO<sub>3</sub></i>
14:05	<b>Markus Braden</b> <i>Neutron scattering studies on chiral multiferroics</i>
14:45	<b>Ekhard K. H. Salje</b> <i>Noise and Pattern Formation in Ferroic Materials</i>

15:30 Closing