# 1st week

# Tuesday August 12, 2014

8.00 - 9:00	Registration
9:00 - 9.15	Opening
9.15 - 10:20	Section I Ions : from traps to colloids.
9:15 - 10:05	<i>M. Drewsen</i> Ion Coulomb Crystals
10:05 - 10:35	<i>T. Mehlstaeubler</i> Symmetry Breaking and Topological Defect Formation in Ion Coulomb Crystals.
10.35 - 11.05	Coffee
11:05 - 12:05	<i>C. Bechinger</i> Tribology of colloidal systems
12.30 - 14.30	Lunch
14:30 - 15:50	Section II CDW and stripes
14:30 - 15:20	<i>E. Blackburn</i> Charge Density Waves in High Temperature Superconductors
15:20 - 15:50	<i>D. Reznik</i> Direct observation of dynamic charge stripes in La <sub>2-x</sub> Sr <sub>x</sub> NiO <sub>4</sub>
15:50 - 16:10	Coffee
16:10 - 17:20	Section III Charge – and spin density waves I
16:10 - 16:30	<i>YA. Soh</i> Phase information of the strain wave in chromium thin films
16:30 - 16:55	D. Dominko Fingerprints of hopping conductivity in disordered charge density wave systems
16:55 - 17:20	<i>M. Hayashi</i> Time-dependent Ginzburg-Landau equation for charge density waves and its application to sliding phenomena
17:30	Welcome reception

# Wednesday, August 13, 2014

9.00 - 11:55	Section IV Transformations of cooperative electronic states by optical impacts I.
9.00 - 10:20	<i>M. Wolf</i> Time-resolved spectroscopy and ultrafast dynamics of the electronic structure of photoexcited solids
10.20 - 10.50	Coffee
10:50 - 11:30	<i>H. Okamoto</i> New aspects of photoinduced phase transitions in correletaed electron materials
11:30 - 11:55	<i>T. Mertelj</i> Spectrally-resolved femtosecond reflectivity relaxation dynamics in undoped SDW 122-structure iron based pnictides
12:30 - 14.30	Lunch
14:30 - 15:40	Section V Electronic states and spectra
14:30 - 15:00	<i>G. Aeppli</i> Controlled quantum states of isolated and interacting defects in silicon
15:00 - 15:20	Z. Bonasic-Losic Spectral properties of Dirac electron system
15:20 - 15:40	<ul> <li>A. Arakcheeva</li> <li>1D host-guest composite structure of BaVS3 1D correlate electron system at the</li> <li>70-295 K temperature range</li> </ul>
15:40 - 16:10	Coffee
16:10 - 17:10	Section VI Other correlated states
16:10 - 16:30	S. Mukhin Euclidean action of superconductor with "hidden order"
16:30 - 16:50	P. Aseev Spin injection from topological insulator tunnel-coupled to metallic leads
16:50 - 17:10	<i>R. Ramazashvili</i> Diagnosting a strong topological insulator by quantum oscillations

## Thursday, August 14, 2014

9.00 - 10:20	Section VII Charge – and Spin density waves II
	<i>P. Monceau</i> Charge modulation in two-dimensional compounds
10.20 - 10.50	Coffee
10:50 - 12:30	Section VIII Competing superconductivity
10:50 - 11:15	S. Brown Superconductivity beyond the paramagnetic limit in organic conductors
11:15 - 11:40	<i>C. Pasquier</i> Competition charge density wave/superconductivity in the TTF[M(DMIT)2] (M=NI,PD) organic conductors
11:40 - 12:00	Ya. Gerasimenko What spin-density wave is like in the vicinity of superconductor in (TMTSF) <sub>2</sub> CLO <sub>4</sub> ?
12.30 - 14.30	Lunch
14:30 - 17:30	Section IX Magnetic fields and spin effects I.
14:30 - 15:00	YW. Park The zero magneto resistance of MoS2 at high electric field
15:00-15:25	A. Lebed Quantum limit in a magnetic field for triplet superconductivity in a quasi-one- dimensional conductor
15:25 - 15:55	S. Brazovskii CDW in the Hall bar at hihh magnetic fields <b>30</b>
15:55 - 16:20	Coffee
16:20 - 17:10	<b>Section X</b> Magnetic fields and spin effects II.
16:20 - 16:45	<i>K. Murata</i> Possible quantum Hall effect in magnetic-field-induced phase transition in the quasi-one-Dimensional CDW Organic Conductor HMTSF-TCNQ
16:45 - 17:10	<i>L. Radzikhovskii</i> Fluctuations, stability, and phase transitions of Larkin-Ovchinnikov states: quantum liquid crystals

# Friday, August 15, 2014

9.00 -10:20	Section XI Field effect and electrostatic doping
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	I. Inoue
9:00 - 9:40	Feasible Mott FET: concept, obstacles, and future.
	J.Ye
9:40 - 10:30	Two-dimenional electronics based on ion-gated nanosheets
10.30 - 11.00	Coffee
11:00 -12:00	Section XII Optics and spectra of correlated electrons.
11:00 - 11:30	<i>M. Dressel</i> Pressure dependent optical properties of correlated pi-electron systems
11.20 11.50	V. Nasretdinova
11:30 - 11:50	Polarization dependence of the photoconduction spectra of o-TAS <sub>3</sub>
	O. Barisic
11:50 - 12:10	High-energy anomalies in covalent high-Tc cuprates with large Hubbard Ud on
	copper
12.30 –14.30	Lunch
14:30 - 14:55	Section XIII Electronic ferroelectricity
14:30 - 15:00	S. Ishihara Electronic ferroelectricity in dimer-type organic crystals
	N. Kirova
15:00 - 15:25	Local phase transformations induced by optical pumping : applications to neutral-
	ionic transitions.
15:25 – 15:50	Coffee
15:50 - 18:30	Posters I

## Saturday, August 16

9.00 -10:25	Section XIV Chirality and high-Tc
9:00-9:40	A. Kapitulnik
9.00 9.40	Time reversal symmetry breaking in unconventional superconductors
9:40-10:05	D. Popovic
9.40-10.05	$Magnetic\mbox{-field-driven superconductor-insulator transition in underdoped La_{2-x}Sr_xCuO_4$
10:05-10:25	H. Nobukane
10.05-10.25	Topological electromagnetic response in the chiral superconductors $Sr_2RuO_4$
10.25 –10.55	Coffee
10:55 -12:00	Section XV Spins ordering and dynamics
10:55-11:15	B. Nafradi
10:55-11:15	Interplay of spin charge and rotor dynamics of (EDT-TTF-CONH <sub>2</sub> ) <sub>2</sub> BABCO
11:15-11:35	A. Ralko
	Charge and spin competition of interacting electrons on the 1/3-filled Kagome
11:35 - 11:50	Closing 1st week
12.30 – 14.30	Lunch

Sunday, August 17

## Excursion

# 2nd week

# Monday, August 18, 2014

8:30 - 9:00	Registration
9.00 - 10:20	Section XVI Cold atoms
	T. Giamarchi         Can cold atoms solve all problems of condensed matter?
10.20 – 10.50	Coffee
10:50 - 12:20	Section XVII Superconductivity versus an electronic crystal II
10:50 - 11:30	<i>M.Nunez-Regueiro</i> Quantum fluctuations and superconductivity in density waves systems
11.30 - 11.55	<i>I. Mukhametshin</i> Na order and Co charge disproportionation in Na <sub>x</sub> CoO <sub>2</sub>
11:55 - 12:20	A. Buzdin Revealing the FFLO phase by the in-plane critical field anisotropy in layered superconductors
12.30 - 14.30	Lunch
14:30 - 17:10	Section XVIII Electronic solids at surfaces and interfaces
14:30 - 15:20	<i>R. Claessen</i> Metal adatom structures on semiconductor surfaces: model systems for low- dimensional quantum matter
15:20 - 15:50	Coffee
15:50 - 16:30	<i>H.W.Yeom</i> Direct observation of solitons and chiral solitons
16:30 - 17:10	<i>C. Brun</i> Charge-density waves studied at the surface and at the local scale

# Tuesday August 19, 2014

9.00 - 10:30	Section XIX Orderings of electrons and ions
9:00-9:40	<i>JP. Pouget</i> Interplay between structural and electronic properties in quarter-filled low dimensional organic conductors
9:40-10:10	<i>K. Nomura</i> Coexistance of charge order and antiferromagnetism in (TMTSF)2SbF6: NMR study
10.10 –10.30	Coffee
10:30 - 12:05	Section XX Transformations of cooperative electronic states by optical impacts
10:30-11:10	<ul> <li>D. Mikhailovic</li> <li>Coherent trajectories through phase transitions in electronically ordered systems: topological defect dynamics and hidden states</li> </ul>
11:10-11:35	<i>C. Laulhé</i> Study of femtosecond structural dynamics in the 2D charge density wave compound 1T-TaS <sub>2</sub>
11:35-12:05	S. Kaiser Transient superconductivity in optically modulated YBa <sub>2</sub> Cu <sub>3</sub> O <sub>6+X</sub>
12.30 - 14.30	Lunch
14:30-16:05	Section XXI Charge ordering and CDWs
14:30-15:00	<i>F. Kagawa</i> Charge-cluster glass in organic conductors with triangular lattice
15:00-15:20	<i>W. Kaddour</i> Coexistence of metallicity and charge density wave in the quasi-1D ORGANIC conductors TTF[Ni(dmit) <sub>2</sub> ] <sub>2</sub> and TTF[Pd(dmit) <sub>2</sub> ] <sub>2</sub>
15:20–15:45	D. Le Bolloch The role of dimensionality in quasi 2D sliding charge density waves probed by coherent X-ray diffraction
15:45-16:05	<i>S. Chattopadhyay</i> Thermodynamic and neutron diffraction studies on multiferroic NdMn <sub>2</sub> O <sub>5</sub> .
16:05-16:25	Coffee
16:25-18:30	Posters II

## Wednesday, August 20, 2014

9.00 - 10:20	Section XXII Surface charges
	<i>P. Littlewood</i> Screening of charge and structural motifs
10.20 – 10.50	Coffee
10:50 - 12:15	Section XXIII Chirality in density waves
10:40-11:50	S. Tanda
11:50-12:15	<i>V. Yakovenko</i> Possible spiral structure in the pseudogap phase of cuprates
12.30 - 14.30	Lunch
14:30-15:25	Section XXIV Interplays of charges and spins
14:30-15:00	<i>K. Kanoda</i> Charge-lattice-coupled quantum criticality and the decoupling in neutral-ionic transition
15:00-15:25	S. Tomic What is the origin of anomalous dielectric response in the spin liquid organic system kappa-(BEDT-TTF) <sub>2</sub> Cu <sub>2</sub> (CN) <sub>3</sub> : an in-depth study of anisotropic charge dynamics
15:25-15:45	K. Katono Charge disproportionation in $\alpha$ -(BEDT-TTF) <sub>2</sub> X
15:25-15:50	Coffee
16:30	Excursion

9.00 - 10:20	Section XXV Competing local states in high-Tc
	<i>J. Tranquada</i> Intertwined orders in high temperature superconductors
10.20 – 10:45	Coffee
10:45 - 12:25	Section XXVI Optics and spectra.
10:45-11:15	S. Zaitsev-Zotov Charge density waves physics revealed by photoconduction
11:15-11:45	<i>L. Degiorgi</i> Hysteretic behavior in the optical response of the underdoped Fe-arsenide Ba(Fe $_{1-x}$ Co <sub>x</sub> ) <sub>2</sub> As <sub>2</sub> in the electronic nematic phase
11:45-12:05	C. Velebit Imprints of nanostructured and Mott phase in optical phonons and continua of 1T- TaS2
12:05-12:25	V. Ilakovac Role of sulfur in BaVS3 probed by S K edge X-ray absorption spectroscopy
12.30 – 14.30	Lunch
14:30-17:05	Section XXVII Charge density waves I
14:30-14:50	<i>I. Gorlova</i> Magnetotransport and power-law i-v curves of the layered quasi one-dimensional compound TiS <sub>3</sub> .
14:50-15:10	<i>T. Matsuura</i> Melted discommensuration of charge density waves
15:10-15:30	<ul> <li>P. Grigoriev</li> <li>New scattering mechanism of electrons in the partial density wave state in magnetic field</li> </ul>
15:30-15:50	A. Rojo-Bravo Transverse current reconstruction by dislocations of a junction for a mixed system of an incommensurate charge density wave and normal carriers
15:50-16:10	Coffee
16:10 - 17:15	Section XXVIII Charge density waves II
16:10-16:35	A. Sinchenko Anisotropy of conductivity in rare-earth tritellurides in the static and sliding states of the CDW
16:35-16:55	V. Jacques Charge and spin density wave observed through their spatial fluctuations by simultaneous and coherent X-ray diffraction
16:55-17:15	V. Pokrovskii Self-detection of mechanical oscillations of charge-density wave conductors
19:30	Conference dinner

## Friday, August 22, 2014

0.00 10.25	Section XXIX Ions ordering in soft and bio matter.
9.00 -10:25	
	J. Miller
	Normal and impaired charge
9:00-10:00	transport in the mitochondrial electron transport chain
	V. Shikin
10:00-10:25	Instability and periodic reconstruction of the charged vapor-liquid interface
10.25 –10.45	Coffee
	Section XXX Graphene and the family
10:45-12:20	
	D. Radic
10:45-11:05	Charge stripes due to pseudomagnetic fields in graphene sheets of $CaC_6$ intercalated compound
	S. Fratini
11:05-11:30	Wigner-Mott transition, frustration and glassyness in layered triangular lattices
	F. Carbone
11:30-12:20	Direct-space dynamical observation of charge and spin patterns with electron scattering techniques
12:20-12:30	Closing
12.30 – 14.30	Lunch

## **Posters I**

V. Bisti	Edge states and edge magnetoplasmons in 2D systems with periodic boundary conditions
S. Brazovskii	Extracting criticality at the phase transition to the electronic ferroelectric from experiments in $TMTTF_2X$ .
I. Chikina	On stability of the liquid dielectric-vapor interface in electric field
M. Denis-Brazovskaia	Diabolical points in the resonance spectra of vibrating smectic films
A. Edelman	A Functional Approach to Polariton Quantum Crystals
C. Février	Charge ordered state of AgNiO <sub>2</sub> : an experimental realization of an orbital pinball liquid.
S. Kostenko	Temperature dependence of conductivity anisotropy can reveal the microscopic structure of density wave at imperfect nesting and distinguish soliton scenario from metallic Fermi-surface pockets
M. Hepting	Tuning of charge and spin order in PrNiO <sub>3</sub> thin films and superlattices
E. Huseynov	Influence of neutron flux, temperature and frequency to impedance of nano $SiO_2$
L. Kadyrov	Terahertz-infrarted spectroscopy of overdoped manganites $La_{1-x}Ca_xMnO_3$
T. Kanno	Chiral unitarity in 2H-Fe <sub>x</sub> Ta <sub>1-x</sub> Se <sub>2</sub>
N. Lebed	Possible nodeless triplet superconducting phase in the quasi-one-dimensional conductor Li $_{0.9}Mo_6O_{17}$
A. Löhle	Experimental setup for hall effect measurements under pressure on low- dimensional organic conductors
G. Matsuno	Excitonic mass generation in Dirac electron system in $\alpha$ -(BEDT-TTF) <sub>2</sub> I <sub>3</sub>
A. Pustogow	Bad metal to superconductor: optical studies on charge fluctuations in theta- $(BEDT-TTF)_2I_3$
L. Radzihovsky	A p-wave resonant superfluid: a spinor super-smectic
S. Radzihovsky	Island Emulsions in Freely Suspended Smectic Liquid Crystal Films
T. Terashige	Terahertz-field-induced optical switching in Mott insulators
F. Wrobel	MBE growth of nickelate-based heterostructures: from empirical growth to designing new materials

#### **Posters II**

T. Chameeva	Commensurability between FFLO modulation and Josephson vortex lattice
N. Charles	Rational Design of Electronic Function in Complex Metal Oxyfluorides Through Ligand Engineering.
Ch. Dietl	Delta-doped (La,Sr,Ba)2CuO4 grown by oxide molecular beam epitaxy
M. Denis-Brazovskaia	Diabolical points in the resonance spectra of vibrating smectic films
P. Foury-Leylekian	Recent X-ray Study of the Two-Chain Compound Per <sub>2</sub> [M(mnt) <sub>2</sub> ] (M=Ni, Pd, Pt)
T. Hosokawa	Hysteretic current switching phenomena in TaS3 ring crystals
V. Jacques	Coexistence of SDW and CDW in chromium
F. Kagawa	Polarization switching ability dependent on multidomain topology in a uniaxial organic ferroelectric
T. Minamidate	Negative hall state in the FISDW phase of (TMTSF)2REO4
V. Minakova	Photoconduction in Peierls conductor monoclinic TaS3
V. Nasretdinova	Indium doping induced change in the photoconduction spectra of $o-TAS_3$
Y. Oka	STM spectroscopy on deuterated kappa-(ET-d[3,3])2Cu[N(CN)2]Br
A. Pogrebna	The nonthermal destruction of SDW ordering in pnictides by ultrashort laser pulses
D. Radić	Spin-controlled mechanics in nanoelectromechanical systems
P. Sensier	Evidence for the coexistence of Dirac and massive carriers in $\alpha$ -(BEDT-TTF) <sub>2</sub> I <sub>3</sub> under hydrostatic pressure.
E. Tafra	Temperature dependence of anisotropic resistivity and Hall coefficient of the spin-liquid candidate $\kappa$ -(BEDT-TTF) <sub>2</sub> Cu <sub>2</sub> (CN) <sub>3</sub>
S. Zybtsev	Strain-induced formation of ultra-coherent CDW in quasi one-dimensional conductors