NGSCES 2016 Program

Venue: Adriatico GH – Kastler Hall

Sunday September 25

17:00-18:00	*Registration*
18:00-20:00	*Welcome reception*

Monday September 26

08:00-08:30: Registration
08:30-09:00 A. Franciosi: Welcome

Non-equilibrium superconductivity

09:00-09:30	***Stephen Clark***	*Controlling matter with light – an introduction*
09:30-10:00	***Matteo Mitrano***	*Possible light-induced superconductivity in K_3C_{60} at high temperatures*
10:00-10:20	***Minjae Kim***	*Enhancing superconductivity of A_3C_{60} fullerides by asymmetric perturbation*

10:20-10:30 Coffee break

Non-equilibrium and correlations

10:30-11:00	***Stephen Clark***	*Enhanced super-exchange pairing in a periodically driven Hubbard model*
11:00-11:20	***Federico Cilento***	*Time-resolved XUV photoemission:a new clue for understanding the ultrafast dynamics in copper oxides*
11:20-11:40	***Denis Golez***	*Manipulation of band gap upon photoexcitation of an excitonic insulator*
11:40-12:00	***Giacomo Mazza***	*Field-driven mott gap collapse and resistive switch in correlated insulators*

12:00-14:00 Lunch break

Non-equilibrium dynamics and time domain spectroscopy I

14:00-14:30	***Lev Vidmar***	*Thermalization of electron-boson systems described by a pure state*
14:30-15:00	***John Goold***	*Simulations of high temperature transport in a disordered interacting spin system*
15:00-15:20	***Arunangshu Debnath***	*Quantum field spectroscopy of cold atoms in photonic crystal waveguides*
15:20-15:40	***Francesco Randi***	*Bypassing the energy-time uncertainty in time-resolved photoemission*

15:40-16:00 Coffee break

Charge and spin order

16:00-16:30	**Matthieu LeTacon**	*Charge Order in the Cuprates: Crystals, films and heterostructures – a Review*
16:30-16:50	**Ekaterina Plotnikova**	*Theoretical calculation of photoemission spectra for Ir-based perovskites*
16:50-17.10	**Lewin Boehnke**	*Self-consistent merging of GW and EDMFT: Tiers of approximations*

Tuesday September 27

Strong correlation from micro to macro I

09:00-09:30	**Suchitra Sebastian**	*Exploring Materials Universes*
09:30-09:50	**Lorenzo Fratino**	*An organizing principle for two-dimensional strongly correlated superconductivity*
09:50-10:10	**Andreas Hausoel**	*Local magnetic moments in iron and nickel: Electronic correlation, van-Hove singularities and Earth's core pressure*

10:10-10:30 Coffee break

Strong correlation from micro to macro II

10:30-11:00	**Paola di Pietro**	*Optical properties of nickelate heterostructures*
11:00-11:30	**Yusuke Nomura**	*Exotic high-Tc s-wave superconductivity in alkali-doped fullerides*
11:30-12:00	**Suchitra Sebastian**	*Unconventional quantum oscillations in the Kondo insulator SmB6*

12:00-14:00 Lunch break

Non-equilibrium dynamics and time domain spectroscopy II

14:00-14:30	**Simon Wall**	*The role of phonons in the ultrafast insulator metal transition in VO2*
14:30-14:50	**Lorenzo Privitera**	*On the adiabatic preparation of a Floquet-Chern insulator*
14:50-15:10	**Sharareh Sayyad**	*Non-equilibrium electron dynamics near Mott transition*
15:10-15:30	**Andrea Sterzi**	*Time resolved ARPES on n-doped and p-doped Topological Insulators*

15:30-16:00 Coffee break

Theoretical Advances in strongly correlated systems I.

16:00-16:20	**Ciro Taranto**	*From infinite to two dimensions through the functional renormalization group*
16:20-16:40	**Rainer Härtle**	*Impurity problems away from equilibrium: A hierarchical quantum master equation approach*
16:40-17:00	**Evgeny Kozik**	*Unbiased ground-state phase diagram of the two-dimensional fermionic Hubbard model in the emergent BCS regime*

17:00-17:30 ***Coffee break***

Posters

17:30-18:00	Poster flash session and discussion
18:00-20:00	**Poster session**

Wednesday September 28

Quantum magnetism I

09:00-09:30	**Tom Fennell**	*Spin ices and spin liquids*
09:30-10:00	**Oleg Janson**	*Spin model of volborthite $Cu_3V_2O_7(OH)_2{\cdot}2H_2O$ revisited: coupled trimers instead of zigzag chains*
10:00-10:20	**Natalija van Well**	*Magnetic order in the anisotropic triangular material $Cs_2CuCl_{4-x}Br_x$*
10:20-10:40	**Sebastian Witt**	Improvement of crystal growth of MnSi and YbRh2Si2 by accelerated crucible rotation technique

10:40-11:00 ***Coffee break***

Quantum magnetism II

11:00-11:30	***Tom Fennell***	*Spin correlations and magnetoelastic excitations in $Tb_2Ti_2O_7$*
11:30-11:50	***Martin Claassen***	*Dynamical Time-Reversal Symmetry Breaking and Photo-Induced Chiral Spin Liquid in a Mott Insulator*
11:50-12:10	***Ghassen Yahia***	Ab initio study of R3+ embedded fragment in RMn2O5 multiferroic compounds

12:10-14:00 ***Lunch break***

14:00-17:00	***Elettra visit***
17:00-19:00	***Transfer to Trieste and aperitif***
20:00	***Social dinner:*** *Savoy Restaurant, Riva del Mandracchio 4*
20:30	***Transfer to Adriatico Guesthouse***

Thursday September 29

Correlation and topology I

09:00-09:30	**Cedric Weber**	*Many body effects in transition metal molecular systems*
09:30-09:50	**Marcin Wysokinski**	*Many-body breakdown of the indirect gap in topological Kondo insulators*
09:50-10:10	**Pramod Kumar**	*Interaction-Induced Topological and Magnetic Phases in the Hofstadter-Hubbard Model*
10:10-10:30	**Wojiech Brzezicki**	*Charge - orbital order and topological effects in presence of zig-zag magnetic textures in 4d – 3d hybrid oxides*

10:30-11:00 **Coffee break**

Correlation and topology II

11:00-11:30	**Cedric Weber**	*Many body effects in transition metal molecular systems*
11:30-11:50	**Giulia Manzoni**	*Understanding the Transport Properties and the Topological Character of $ZrTe_5$*
11:50-12:10	**Chris O'Neill**	*Pressure Induced Topological Phase in SnTe.*

12:10-14:00 **Lunch break**

Spin-orbit coupling and correlation

14:00-14:30	**Marco Moretti Sala**	*Magnetic and orbital excitations studied by x-rays*
14:30-14:50	**Alen Horvat**	*Spin-orbit coupling in multi-orbital impurity models and its relevance for transition metal-oxides*
14:50-15:10	**Krzysztof Wohlfeld**	*Excitons and holes in spin-orbit coupled systems*
15:10-15:30	**Valentina Brosco**	*Unconventional transport in two-dimensional materials with strong Rashba spin-orbit coupling*
15:30-15:50	**Estelina da Silva**	*Modelling Approaches to Characterise Ferroelectric Rashba Materials: a Case Study of the Prototypical GeTe*

15:50-16:00 **Coffee break**

Quantum magnetism III.

16:00-16:30	**Hans-Joachim Grafe**	*Impurity effects in S=1/2 Heisenberg spin chains as probed by nuclear magnetic resonance*
16:30-16:50	**Ilia Sivkov**	*Even-odd effects and entanglement-related properties of information propagation in 3/2-spin chains*
16:50-17:10	**Angelo Valli**	*Interplay between charge and spin degrees of freedom in the magnetic state of hole-doped graphene nanoflakes*

Friday September 30

Theoretical advances in strongly correlated systems II.

09:00-09:20	**Sumanta Bhandary**	*Charge self-consistency in DFT+DMFT with maximally localised Wannier functions: k-space reoccupation and orbital order*
09:20-09:40	**Anna Galler**	*Towards an ab-initio treatment of nonlocal electronic correlations with dynamical vertex approximation*
09:40-10:00	**Fedor Simkovic**	*Evidence for phase separation in the fermionic Hubbard model*

10:10-10:30 **Coffee break**

Superconductivity in the iron age

10:30-11:00	**Laura Fanfarillo**	*Orbital Selectivity and Hund's Physics in Iron-Based Superconductors*
11:00-11:20	**Ramos Alvarez**	*Unconventional effects in the iron based superconductor* $BaFe_2(As_{1-x}P_x)_2$*, as probed by thermal superconducting fluctuations around* T_c
11:20-11:40	**Alireza Akbari**	*Quasiparticle scattering interference in parent compounds of iron-based Superconductors*

11:40-12:00 **Closing remarks**

12:00-14:00 **Lunch**