12:05 Alex Hewson, London, UK
Renormalision group approaches to strong correlation behaviour.

Lunch & afternoon break

16:00 Posters, coffee, discussions

Afternoon session

17:00 Adolfo Avella, Baronisssi, Italy
Underdoped cuprate phenomenology in the two-dimensional Hubbard model within the Composite Operator Method

17:40 Philipp Hansmann, Stuttgart, Germany
$LaNiO_3/LaAlO_3$ heterostructures: A LDA+DMFT analysis

18:20 Didier Poilblanc, Toulouse, France
The physics of doped Quantum Dimer Models

20:00 Conference dinner

Monday, September 29

Morning session: Low-dimensional systems

8:15 Thierry Giamarchi, Geneva, Switzerland
Spin ladders, BEC, Luttinger liquids and beyond

8:55 Leonardo Degiorgi, Zurich, Switzerland
Infrared and Raman study of the charge-density-wave ground state

9:35 Holger Fehske, Greifswald, Germany
Luttinger, Peierls or Mott? Quantum phase transitions in 1D strongly correlated electron-phonon systems

10:15 coffee break

10:45 Janez Bonca, Ljubljana, Slovenia
Optical and spectral properties of the t-J Holstein model

11:25 Frithjof Anders, Bremen, Germany
Steady-state currents through nano-devices: a scattering-states numerical renormalization group approach to open quantum systems

12:05 To be announced

Lunch & afternoon break

16:00 Posters, coffee, discussions

Afternoon session: Magnetic oxides

17:00 Echur Sampathkumaran, Mumbai, India
Geometrical frustrated magnetism in spin-chain oxides crystallizing in K_4CdCl_6-type rhombohedral structure

17:40 Peter Littlewood, Cambridge, UK
Electronic soft matter in manganites

18:20 Kalobaran Maiti, Mumbai, India
Electron spectroscopic study of correlated transition metal oxides

Dinner break

21:00 After-dinner discussion
Peter Littllewood, Cambridge, UK
Perspetives in SCES

Tuesday, September 30

Morning session

8:15 Laszlo Borda, Bonn, Germany
Spin and charge correlations around a magnetic impurity

8:55 Gleb Finkelstein, Durham, USA
Carbon nanotube quantum dots: SU(4) Kondo and the mixed valence regimes

9:35 Armando Aligia, Bariloche, Argentina
Kondo effect in transport through Aharonov-Bohm-Casher interferometers

10:15 coffee break

10:45 Siddharth Shanker Saxena, Cambridge, UK
Superconducting Properties of Graphite Intercalates

11:25 Klaus Becker, Dresden, Germany
On the theory of high-temperature superconductors

12:05 Michele Fabrizio, Trieste, Italy
Strongly correlated superconductivity arising in a pseudo-gap metal

Lunch & afternoon break

Afternoon session

16:00 Igor Sega, Ljubljana, Slovenia
Omega/T scaling in the dynamical spin response of high-temperature superconductors

16:40 Fred Zawadowski, Budapest, Hungary
On the applicbility of bosonization and the Anderson-Yuval methods in quantum impurity problems

17:20 To be announced

18:00 Conference summary

Conference on Concepts in Electron Correlation

September 24th - 30th 2008

Hvar, Croatia

hvar08.ifs.hr

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This workshop is supported by:
The NATO Science for Peace and Security Programme

Programme

Thursday, September 25

15:00 Conference registration

15:50 Veljko Zlatić, Zagreb, Croatia
Opening of the Conference on Concepts in Electron Correletion

Afternoon session: Heavy fermion superconductivity

16:00 Brian Maple, San Diego, USA
Unconventional superconductivity in novel d- and f- electron materials

16:40 Meigan Aronson, Upton, USA
Different Routes to Quantum Criticality in Strongly Correlated Electron Materials

17:20 Joe D. Thompson, Los Alamos, USA
Magnetism and Unconventional Superconductivity in CeMIn5 Heavy-Fermion Compounds

18:00 Sriram Shastry, Santa Cruz, USA
Superconductivity in a strongly correlated model system: A numerical study

18:30 Jozef Spalek, Krakow, Poland
Fulde-Ferrell-Larkin-Ovchinnikov superconducting state of paired quasiparticles with the spin dependent masses

21:00 Workshop farewell party and conference welcome party

Friday, September 26

Morning session: New superconductors

8:15 Brian Sales, Oak Ridge, USA
Recent Results from Oak Ridge National Laboratory on the Layered Iron Arsenide Superconductors with Tc=55K

8:55 Zlatko Tesanovic, Baltimore, USA
Multiband effects in FeAs superconductors

9:35 Jorge Hirsch, La Jolla, USA
Spin Meissner Effect in Superconductors and the Origin of the Meissner Effect

10:15 coffee break

Quantum dots and confined Kondo effect

10:45 Theo Costi, Juelich, Germany
Kondo decoherence: from ab- initio calculations to model Hamiltonians and beyond

11:25 Christoph Stampfer, Zurich, Switzerland
Graphene Quantum dots

12:05 David Logan, Oxford, UK
Kondo effects in multilevel quantum dots

Lunch & afternoon break

16:00 Poster session and additional questioning time for the mornings talks

Afternoon session: Quantum criticality

17:00 Philipp Gegenwart, Goettingen, Germany
Quantum Criticality in Heavy Fermion Metals

17:40 Kai Grube, Karlsruhe, Germany
Thermal expansion and magnetostriction measurements of $CeCu_{6-x}Au_x$ single crystals

18:10 Christoph Meingast, Karlsruhe, Germany
Thermal expansion and specific heat of MnSi: evidence for quantum critical behavior

18:40 Guido Donath, Dresden, Germany
Dimensional Crossover of Quantum Critical Behavior in $CeCoIn_5$

Dinner break

21:00 After-dinner discussion
Gabi Kotliar, Piscataway, USA
Computational material science

Saturday, September 27

Morning session: Cuprate superonductors

8:15 Abhay Pasupathy, Princeton, USA
Visualizing pair formation on the atomic scale in high-Tc superconductors

8:55 Peter Johnson, Upton, USA
A Re-examination of the pseudo-gap regime of High Tc-superconductivity

9:35 Erik van Heumen, Geneva, Switzerland
Optics clues to pairing glues in the cuprates

10:15 coffee break

10:45 Peter Prelovsek, Ljubljana, Slovenia
Spectral functions and high-energy kink in cuprates

11:25 Maciej Maska, Katowice, Poland
Inhomogeneity-induced enhancement of the pairing interaction in cuprate superconductors

12:05 Erio Tosatti, Trieste, Italy
Two Dimensional Triangular Lattice Mott-Hubbard Insulators in Real Life: Sn/Si(111), Sn/Ge(111) and Other Surfaces

Lunch & afternoon break

16:30 Posters, coffee and discussions

Afternoon session: Cold atoms and optical lattices

17:00 Henning Moritz, Zurich, Switzerland
Strongly correlated fermionic gases in optical lattices

17:40 Corinna Kollath, Palaiseau Cedex, France
Strong correlations in quantum gases

18:20 Walter Hofstetter, Frankfurt/Main, Germany
Strong correlations and inhomogeneity in optical lattices

Dinner break

21:00 After-dinner discussion
Jorge Hirsch, La Jolla, USA
High-temperature superconductivity - what can be expected in the future?

Sunday, September 28

Morning session: Heavy fermions, normal state properties

8:15 Zachary Fisk, Irvine, USA
Kondo scale in the dense Kondo Lattice

8:55 N. Peter Armitage, Baltimore, USA
Towards the Lifshitz point in elemental bismuth: Light electrons gone heavy at the metal-insulator transition?

9:35 Peter Oppeneer, Uppsala, Sweden
Calculated electronic structure properties of URu_2Si_2 and Ce-115 materials

10:15 coffee break

10:45 Andrzej M. Oles, Stuttgart, Germany
Modelling of phase transitions in the RVO_3 perovskites

11:25 Thomas Pruschke, Goettingen, Germany
Competing interactions and magnetic order in correlated electron systems