

Properties of Cuprate Superconductors III

Joint Workshop of the
MPI-FKF Stuttgart,
Abteilungen Andersen, Keimer and Metzner,
and the DFG Research Unit 538



Schloss Ringberg

3 – 7 November, 2008

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Monday, 3 November 2008

09.10–09.20	Welcome	B. Keimer, MPI-FKF
09.20–09.30	Welcome	Rudi Hackl, WMI
09.30–10.00	STM Measurements on Unconventional Superconductors & Metals	Ali Yazdani
10.00–10.30	Origin of the spatial variations of the pairing gap in Bi-based cuprates	Giniyat Khaliullin
10:30–11:00	– <i>Coffee Break</i> –	
11.00–11.30	Quasi-particle interference study under magnetic fields in a high- T_C cuprate $\text{Ca}_{2-x}\text{Na}_x\text{CuO}_2\text{Cl}_2$	Hidenori Takagi
11.30–12.00	Disordered valence-bond stripes in cuprates	Matthias Vojta
12:30	– <i>Lunch</i> –	
14:30–15.00	Stripes in high- T_C superconductors as detected by resonant soft X-ray scattering	Jörg Fink
15.00–15.30	Evidence for Fermi surface reconstruction in the static stripe phase of Eu-LSCO ($x=1/8$)	Volodymyr Zabolotnyy
15.30–16.00	– <i>Coffee Break</i> –	
16.00–16.30	Orders and Gaps in Cuprate Superconductors	Tonica Valla
16.30–17.00	Quasiparticle lifetimes in cuprate superconductors	Peter Hirschfeld
17.00–17.30	Striped Superconductors	Steve Kivelson
18:30	– <i>Dinner</i> –	

Tuesday, 4 November 2008

09.00–09.30	Electronic liquid crystal state in YBCO	Vladimir Hinkov
09.30–10.00	Pomeranchuk route to nematic order and non-Fermi liquid behavior	Walter Metzner
10.00–10.30	Fermi Arcs, Superconducting Stripes and other Peculiarities of Underdoped Cuprates	Maurice Rice
10:30–11:00	– <i>Coffee Break</i> –	
11.00–11.30	Spin spirals in underdoped LSCO and YBCO: differences and similarities	Oleg Sushkov
11.30–12.00	Pairing Glue in the Hubbard Model of the High T_C Cuprates	Douglas Scalapino
12:30	– <i>Lunch</i> –	

Tuesday, 4 November 2008 (cont'd)

14:30–15.00	Consistent description of neutron resonance mode, magnetic excitations and the T=0 phase diagram in the strongly correlated Hubbard model	Werner Hanke
15.00–15.30	Strength of the spin fluctuation mediated pairing interaction in a high temperature superconductor	Thomas Dahm
15.30-16.00	– <i>Coffee Break</i> –	
16.00–16.30	Anisotropic scattering and anomalous criticality in high temperature superconductors	Nigel Hussey
16.30–17.00	Possible time reversal symmetry breaking ground state in the FeAs superconductors	Shou-Chen Zhang
17.00–17.30	Energy gaps in cuprate and pnictide high T _c superconductors	Christian Bernhard
18:30	– <i>Dinner</i> –	

Wednesday, 5 November 2008

09.00–09.30	Magnetic order in the pseudogap state of high-T _c cuprates using polarized neutron scattering technique	Yvan Sidis
09.30–10.00	The Physics of Copper Oxide Materials: a cluster Dynamical Mean Field Theory perspective	Gabriel Kotliar
10.00–10.30	Optical studies of the correlation strength in oxides: are the cuprates Mott insulators and what is a Mott insulator anyway?	Andrew Millis
10:30–11:00	– <i>Coffee Break</i> –	
11.00–11.30	Comments on quantum oscillations in the cuprates	Patrick Lee
11.30–12.00	Momentum Dependence of the Electron-Phonon Coupling and Self-Energy Effects in Superconducting YBa ₂ Cu ₃ O ₇	Dirk Manske
12:30	– <i>Lunch</i> –	
14:30–15.00	Numerical methods for correlated electron systems; CT-QMC and its application to the electron-phonon problem	Fakher Assaad
15.00–15.30	Understanding the energy scales in the cuprate phase diagram: an electronic Raman scattering analysis	Alain Sacuto
15.30-16.00	– <i>Coffee Break</i> –	
16.00–	– <i>Poster Session</i> –	
18:30	– <i>Dinner</i> –	

Thursday, 6 November 2008

09.00–09.30	Edge states in multiband superconductors	Naoto Nagaosa
09.30–10.00	Low energy charge dynamics of high-T _c cuprates	Peter Horsch
10.00–10.30	Evolution of electronic interactions in cuprates below and above half filling	Rudi Hackl
10:30–11:00	– <i>Coffee Break</i> –	
11.00–11.30		Carlo di Castro
11.30–12.00	TBC	Bernd Büchner
12:30	– <i>Lunch</i> –	
	Crystal growth and characterization of Cuprate and FeAs based High T _c superconductors	Andreas Erb
14:30–15.00	The intrinsic electronic phase diagram of iron-pnictide superconductors	Christian Hess
15.00–15.30	Signatures of strong correlations in the optical spectra of FeAs	Alexander Boris
15.30–16.00	– <i>Coffee Break</i> –	
16.00–16.30	Scattering rate anisotropy and critical temperatures in the overdoped cuprates	Carsten Honerkamp
16.30–17.00	Understanding the Electronic structure of Fe-As superconductors	Lilia Boeri
17.00–17.30	Magnetic properties of Fe-As compounds from spin-spiral calculations	Alexander Yaresko
18:30	– <i>Dinner</i> –	

Friday, 7 November 2008

09.00–09.30	Theory of neutron scattering and the superconducting gap in the Fe-pnictides	Thomas Maier
09.30–10.00	(π, π)-electronic order in iron arsenide superconductors	Sergey Borisenko
10.00–10.30	Electronic phase separation in Ba _{1-x} K _x Fe ₂ As ₂	Dmytro Inosov
10:30–11:00	– <i>Coffee Break</i> –	
11.00–11.30	HTSC-like bandstructures in LaNiO ₃ / ABO ₃ Superlattices	Xiaoping Yang
11.30–12.00	Unconventional Superconducting Properties of Expanded A ₃ C ₆₀ Fullerenes	Claudio Castellani
12:30	– <i>Lunch</i> –	
	– End of Workshop –	