



The Abdus Salam
International Centre for Theoretical Physics

MINIWORKSHOP on
Strong Correlations in Materials and Atom Traps
(Dedicated to the memory of Patrik Fazekas)
4 - 15 August 2008
(Miramare - Trieste, Italy)



Physics is experiencing a rapid convergence of interests in the fields of strongly correlated electron physics, superconductivity, and the physics of fermions and bosons inside atom traps. The experimental techniques and spectroscopies of these two fields are widely different, providing radically complimentary views of strongly correlated matter. The meeting will bring the worlds finest experimental and theoretical scientists in these fields together with the aim of stimulating cross-disciplinary research, the development of new spectroscopies and new perspectives in the two fields.

This meeting continues a tradition of miniworkshops in strongly correlated materials that was begun at the ICTP in 1987. A special component of this 2008 meeting will be a strong effort to link the challenges of condensed matter physics with the new insights gained from research in optical lattices and atom traps. Special topics will include correlation effects in optical lattices and atom traps, new developments in heavy electron materials, organic and cuprate superconductors, frustrated magnetism, quantum criticality, and Mott phenomena in systems of reduced dimensionality, and new developments in mesoscopics. With this meeting, the community will also honor the memory of one of its leading members, Patrik Fazekas, who passed away in May 2007.

Invitees include both experimentalists and theorists. In keeping with previous years, the program will involve a moderate density of talks each day, with a strong element of review and pedagogy, leaving some time in the afternoons free for discussion and collaboration.

ORGANIZERS:

A. CHUBUKOV (*U. Wisconsin, Madison, U.S.A.*)
P. COLEMAN (*Rutgers University, Piscataway, U.S.A.*)
A. SCHOFIELD (*University of Birmingham, U.K.*)
H. TAKAGI (*University of Tokyo, Japan*)
LOCAL ORGANIZER:
E. TOSATTI (*SISSA & ICTP, Trieste, Italy*)

PARTICIPATION

Scientists and students from all countries which are members of the United Nations, UNESCO or IAEA may attend the Miniworkshop. As it will be conducted in English, participants should have an adequate working knowledge of this language. Although the main purpose of the Centre is to help research workers from developing countries, through a programme of training activities within a framework of international cooperation, a limited number of students and post-doctoral scientists from developed countries are also welcome to attend.

As a rule, travel and subsistence expenses of the participants should be borne by the home institution. Every effort should be made by candidates to secure support for their fare. However, limited funds are available for some participants who are nationals of, and working in, a developing country, and who are not more than 45 years old. Such support is available only for those who attend the entire activity. There is no registration fee for this event.

The **Application Form** is obtainable from the Activity Web page:
<http://agenda.ictp.it/smr.php?1957> (which will be constantly up-dated)
or from the Activity Secretariat: (smr1957@ictp.it)

Fully completed and signed application form should be returned before **15 APRIL 2008** to:

Miniworkshop on
Strong Correlations in Materials and Atom Traps (smr1957)
the Abdus Salam International Centre for Theoretical Physics
c/o Elizabeth Brancaccio
Strada Costiera 11, I-34014 Trieste, Italy

or via email: smr1957@ictp.it

If sending an application by e-mail you are kindly requested to write under subject: "Application" (please sign and send file in pdf attachment).

Telephone: +39-040-2240284 Telefax: +39-040-2240632 E-mail: smr1957@ictp.it

ICTP Home Page: <http://www.ictp.it/>

Trieste, December 2007

TENTATIVE LIST OF SPEAKERS:

(as of January 4, 2008)

N. ANDREI (Rutgers)
D. AOKI (CEA, Grenoble)
L. BALENTS (UCSB)
D. BASOV (UCSD)
K. BONGS (Birmingham)
S. BROWN (UCLA)
C. BROHOLM (Johns Hopkins)
J.C. CAMPUZANO (UIC, Chicago)
M. FABRIZIO (SISSA & ICTP, Trieste)
H. FUKUYAMA (Tokyo)
K. HAULE (Rutgers)
S. HAYDEN (Bristol)
A.F. HO (R. Holloway, London)
K. KANODA (Tokyo)
A. KAPITULNIK (Stanford)
H-Y. KEE (Toronto)
P. KRUGER (Nottingham)
M. NORMAN (Argonne)
C. PEPIN (Saclay, Paris)
A. POSAZHENNIKOVA (Bonn)
L. RADZIHOVSKY (Colorado)
M. RANDEIRA (Ohio State)
A. ROSCH (Koln)
S. SACHDEV (Harvard)
A. SACUTO (Paris)
S. SEBASTIAN (Cambridge, UK)
T. SENTHIL (MIT)
D. SHEEHY (Louisiana State)
Z-X. SHEN (Stanford)
F. STEGLICH (Dresden)
J. THOMPSON (Los Alamos)
A. YAZDANI (Princeton)
K. YAMADA (Sendai)
E. YUZBASHYAN (Rutgers)

DEADLINE

for requesting participation

15 APRIL 2008