

Unconventional Phases and Phase Transitions in Strongly Correlated Electron Systems

Seminar: June 02 - 27, 2008 — Workshop: June 04 - 07, 2008

Scientific coordination:

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At low temperatures, correlated electron systems display complex phase diagrams with unconventional ground state phases. In these phases and at the transitions that separate them, thermodynamic, transport and other properties deviate fundamentally from the properties of normal materials. Over the last years, it has become clear that understanding such unconventional behavior requires approaches beyond the established concepts of condensed matter theory.

The purpose of the Seminar is to bring together the leading experts in this field to discuss their latest work in an informal format, thereby fostering new and continued collaborations. A second important goal is to involve young scientists at the postdoctoral level in forefront research. The seminar will feature a number of seminar-style talks each week and leave much room for collaborative work. The emphasis of the embedded workshop will be on exchanging ideas between theory and experiment.

Key topics include: Non-fermi liquid physics and quantum critical points, Doped Mott insulators, Topological and critical spin liquids, Interplay between disorder and quantum fluctuations

Invited participants:

D. Belitz (Eugene)	W. Metzner (Stuttgart)	T. Senthil (Boston)
R. Bhatt (Princeton)	E. Miranda (São Paulo)	Q. Si (Houston)
C. Castellani (Rome)	R. Moessner (Dresden)	R. Singh (Davis)
P. Coleman (Piscataway)	M. Norman (Argonne)	S. Sondhi (Princeton)
V. Dobrosavljevic (Tallahassee)	A. Paramekanti (Toronto)	O. Starykh (Salt Lake City)
K. Efetov (Bochum)	P. Phillips (Urbana)	O. Sushkov (Sydney)
W. Hanke (Würzburg)	M. Randeria (Columbus)	N. Trivedi (Columbus)
S. Haas (Los Angeles)	T.M. Rice (Zürich)	A.-M. Tremblay (Sherbrooke)
F. Igloi (Budapest)	H. Rieger (Saarbrücken)	A. Tsvetik (Brookhaven)
H.-Y. Kee (Toronto)	A. Rosch (Köln)	A. Vishwanath (Berkeley)
Y.B. Kim (Toronto)	S. Sachdev (Boston)	D. Vollhardt (Augsburg)
K. Le Hur (New Haven)	A. Sandvik (Boston)	P. Wölfle (Karlsruhe)
D. Manske (Stuttgart)	D. Scalapino (Santa Barbara)	G. Zarand (Budapest)
D. Maslov (Gainesville)	J. Schmalian (Ames)	
K. Matveev (Argonne)	A. Schofield (Birmingham)	

Applications for participation and poster contributions are welcome and should be made by using the application form on the workshop web page (please see URL below). The number of attendees is limited. The **registration fee** for the workshop is **100 €** and should be paid by all participants. Costs for accommodation and meals will be covered by the Max Planck Institute. Limited funding is available to partially cover travel expenses. Please note that childcare is available upon request.

Deadline for registration is February 29, 2008.



For further information please contact:
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