CMSN PCSCS Coordination Meeting
March 9, 2008
Predictive Capability for Strongly Correlated Systems

Server “issue” at Davis.

PCSCS web pages

will be reconstructed and updated.

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PCSCS Postdocs

1. Alexander Macridin (Jarrell, Cincinnati)
2. Wissam A. Al-Saidi (Umrigar, Cornell)
3. Chi-Cheng Lee (Ku, BNL)
4. Wirawan Purwanto (Zhang & Krakauer, Wm&Mary)
5. Anton Kozhevnikov (Eguiluz, UTK & ORNL)
6. [Quan Yin] (Pickett & Scalettar, UCDavis)

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PCSCS-related APS Invited Talks

Savrasov, Sergey A3.00002
Computational Approaches for Strongly Correlated Materials:
an Electronic Structure Theory Perspective

Jarrell, Mark X7.00004
DCA study of magnetic mediated superconductivity
in the Hubbard model

Kunes, Jan Y23.00001
Magnetic Moment Collapse-Driven Mott Transition in MnO

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LDA+DMFT "predictive" theory of the Mott transition under pressure was published in **Nature Materials, March 2008**. This is substantive, and highly visible, progress on the "**signature problem**" of PCSCS.

ARTICLES

Collapse of magnetic moment drives the Mott transition in MnO

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Program Agenda

"Towards a diffusion Monte Carlo study of Mott transition in MnO under pressure" Wissam A. Al-Saidi

"Super atom approach to local excitations in strongly correlated systems". Chi-Cheng Lee

"Local breaking of C4 symmetry in the pseudogap phase of the Hubbard Model." Alexander Macridin

"Progress report on auxiliary-field QMC for strongly correlated systems." Wirawan Purwanto

Breakout sessions: coordinating research, planning visits