

Abstract Submitted  
for the MAR08 Meeting of  
The American Physical Society

Sorting Category: 05.2 (C)

**Phase Fluctuations in high-Tc Superconductors** YUCEL YILDIRIM, WEIGUO YIN, WEI KU, Brookhaven National Laboratory — Thermal fluctuation induced destruction of phase coherence of superconductivity in High-Tc superconductors is investigated via numerical quantum Monte Carlo solution of a new theoretical model at finite-temperature. Our simple effective boson Hamiltonian, derived from the pairing sector of the  $t$ '- $t$ '-J model, can be considered as a natural extension of the hard-core boson with additional information about the internal structure of the local fermion pairs. The local solution is found to consist of d-wave pairing, hybridizing with neighboring p-wave pairs. The possible connection with the pseudo-gap phase will also be addressed.

Prefer Oral Session  
 Prefer Poster Session

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Date submitted: 13 Dec 2007

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