

Abstract Submitted
for the MAR08 Meeting of
The American Physical Society

Variational Monte-Carlo investigation of gossamer-superconductivity SIEGFRIED GUERTLER, FU-CHUN ZHANG, The University of Hong Kong, Department of Physics — Motivated by the interesting superconducting properties in layered organic materials, and the proposed gossamer superconductivity in this context, we performed variational Monte-Carlo simulations. We investigate a previously proposed model-Hamiltonian of a Hubbard-model with additional anti-ferromagnetic coupling term. We work on a square lattice with additional diagonal bonds and with a wave-function with partly projected double-occupied states. Further factors for anti-ferromagnetic states are introduced in our wave-function.

Siegfried Guertler
The University of Hong Kong, Department of Physics

Date submitted: 02 Dec 2007

Electronic form version 1.4