Abstract Submitted
for the MAR05 Meeting of
The American Physical Society

Three-Dimensional Ising Model: Recalcuting the Finite Size Scaling[1] J. RUFINUS, Widener University — We have performed extensive calculations of finite size scaling in the three-dimensional Ising model using a cluster of computers. Monte Carlo calculations with nearest neighbor interactions are used. Periodic boundary conditions are imposed on the model with more than 128 lattices in each site. Data taken over several thousand runs are collected and averaged. We show results for the energy, magnetization, and specific heat. Estimation for the critical coupling is also given.

[1]Work supported in part by NSF Grant Number 0304429

J. Rufinus
Widener University

Date submitted: 16 Dec 2004 Electronic form version 1.4