Quantum Computing Seminar

Title: “Computational complexity and complex systems”

Speaker: Susan Coppersmith, University of Wisconsin

Date: Friday, December 14, 2007

Time: 1:30 pm – 3:00 pm

Location: Room A-06, Jadwin Hall

Abstract: In this talk I will discuss how physics concepts can be useful for understanding issues arising in the field of computational complexity, the study of the amount of computational resources needed to solve different problems. In particular, I will show how renormalization group constructions similar to those used to provide insight into phase transitions in physical systems can provide new insight into the differences between computational problems that can and cannot be solved efficiently.

Sponsor: Princeton Center for Theoretical Physics (PCTP) and The MITRE Corporation

Website calendar: http://www.pctp.princeton.edu/pctp/index.html

Organizers: William Brinkman & Shivaji Sondhi, Robert Calderbank, and Gerald Gilbert