Quantum Statistical Mechanics and Quantum Computation

22-23 March 2012
Room 111, Jadwin Hall

The workshop's intended purpose is to bring together statistical physicists and computer scientists in a small, focused meeting to explore the intersection between quantum statistical mechanics and quantum computation, specifically quantum complexity theory. Advances in complexity theory have interesting implications for physics, especially for the thorny question of glassiness in physical systems. Conversely, the application of statistical mechanical methods allows useful statements to be made about the average complexity of various problems.

More information is available at pcts.princeton.edu/pcts

Organizers:
Sanjeev Arora, Benjamin Hsu, Roderich Moessner, Shivaji Sondhi

Speakers
Scott Aaronson, MIT
Itai Arad, Hebrew University, Israel
Sergey Bravyi, IBM
Daniel Gottesman, Perimeter Institute
Chris Laumann, Harvard University
Roderich Moessner, MPG
Oded Regev, École normale supérieure
Barbara Terhal, IBM
Umesh Vazirani, Berkeley
Francesco Zamponi, CNRS