Stanford University
Departments of Mathematics and Statistics

Probability Seminar

4pm, Monday, May 13, 2019
Sequoia Hall Room 200
Refreshments served at 3:30pm in the Lounge.

Speaker: Sourav Chatterjee, Stanford Mathematics and Statistics

Title: Wilson loops in Ising lattice gauge theory

Abstract:
Computation of Wilson loop expectations in lattice gauge theories is an important goal in quantum field theory, which remains mostly out of the reach of rigorous mathematics. In this talk I will present a calculation of the leading order term of Wilson loop expectations in the weak coupling regime of the simplest kind of 4D lattice gauge theory. This is the first example of an exact calculation of this type in dimension four.