

TEMPLE UNIVERSITY MATHEMATICS COLLOQUIUM

Craig Tracy

UC Davis and IAS, Princeton

will speak on

The Two-Dimensional Ising Model: Something Old, Something New

ABSTRACT: In zero magnetic field the nearest neighbor 2D Ising model belongs to the class of “stochastic integrable models”, and consequently; various physical notions, e.g. phase transitions, scaling hypothesis, can be explored in great detail. Some of the mathematics developed to analyze the 2D Ising model has provided motivating examples for more general progress in Toeplitz and Painlevé theory. These developments will be surveyed. The latter part of the talk will discuss the natural boundary conjecture for the susceptibility.

MONDAY, APRIL 14, 2014

LECTURE AT 4:00 PM

COFFEE, TEA, AND REFRESHMENTS FROM 3:40 PM

ROOM 617, WACHMAN HALL

DEPARTMENT OF MATHEMATICS