

TEMPLE UNIVERSITY MATHEMATICS COLLOQUIUM

Ivan Corwin

Clay Research Fellow, IHP Poincare Chair and Packard Fellow

Columbia University,

will speak on

Beyond the Gaussian universality class

ABSTRACT: The Gaussian central limit theorem says that for a wide class of stochastic systems, the bell curve (Gaussian distribution) describes the statistics for random fluctuations of important observables. In this talk I will look beyond this class of systems to a collection of probabilistic models which include random growth models, polymers, particle systems, matrices and stochastic PDEs, as well as certain asymptotic problems in combinatorics and representation theory. I will explain in what ways these different examples all fall into a single new (Kardar-Parisi-Zhang) universality class with a much richer mathematical structure than that of the Gaussian. This talk is expository and meant for a wide audience without any particular background in these areas.

MONDAY, MARCH 16, 2015

LECTURE AT 4:00 PM

COFFEE, TEA, AND REFRESHMENTS FROM 3:40 PM

ROOM 617, WACHMAN HALL

DEPARTMENT OF MATHEMATICS