STANFORD PROBABILITY SEMINAR

Balint Virag, University of Toronto and MSRI
Monday, 14 February 2005
4:15pm (Refreshments at 4pm in the 1st Floor Lounge)
Sequoia Hall, Room 200

Zeros of i.i.d. Gaussian power series

Abstract. A power series is Gaussian if its coefficients are jointly complex Gaussian random varaibles. We will review some recent developments concerning the geomteric properties of zeros of Gaussian power series. We will show that the zeros of the i.i.d. series form a determinantal process just like the eigenvalues of random matrices. We will present new results on the distribution of zeros and study the repulsion between them via a conformally invariant process. Joint work with Yuval Peres.