

2012

# MATHEMATICS COLLOQUIUM

FRIDAY, OCTOBER 26th @ 4:00

PHYSICAL SCIENCE BUILDING ROOM 307

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## **Correlations and Pairing of Zeros and Critical Points of Random Polynomials**

The Gauss-Lucas theorem states that the critical points of a polynomial in one complex variable lie inside the convex hull of its zeros. Motivated by this, I will present some results about the geometry of zeros and critical points of random polynomials. I will explain that, in fact, zeros and critical points appear in rigid pairs. I will try to give some intuition from physics for why this pairing should appear in the first place.

Refreshments in PS 317 at 3:30 PM