Philadelphia Area Number Theory Seminar

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Distribution of Packets of Periodic Torus Orbits

Abstract: In the first part I will describe Duke's theorem about the equidistribution of packets of Heegner points and closed geodesics on $\mathrm{PGL}_2(\mathbb{Z})\backslash\mathrm{PGL}_2(\mathbb{R})$ — the unit tangent bundle of the modular curve. While Duke's method is based on automorphic forms, Linnik has achieved very strong partial results 30 years prior to Duke. I will present the modern variant due to Einsiedler, Lindenstrauss, Michel and Venkatesh of the "ergodic method" of Linnik.

In the second part we will discuss higher rank analogues and partial generalizations of Linnik's method to higher rank using measure rigidity for toral actions and arithmetic results about separation of torus orbits.

Wednesday, February 1, 2017
2:40–4PM

Bryn Mawr College
Department of Mathematics
Park Science Center **328**
Tea and refreshments at 2:20PM in Park 355