Philadelphia Area Number Theory Seminar

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Counting sublattices

Abstract: We discuss the problem of computing the density of sublattices L of $\mathbb{Z}^d$ which have the property that the quotient of $\mathbb{Z}^d$ by L has m invariant factors, for fixed m. We find that these densities follow a Cohen–Lenstra distribution. Our main tool is a generalization of the subgroup growth zeta function of $\mathbb{Z}^d$ originally introduced by V. Petrogradsky. This is a joint work with N. Kaplan and S. Koplewitz.

Wednesday, March 1, 2017
2:40–4PM

Bryn Mawr College
Department of Mathematics
Park Science Center **328**

Tea and refreshments at 2:20PM in Park 355