

abstract

MINI-WORKSHOP ON PSEUDORANDOMNESS

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

I will talk about a joint work with Jean Bourgain that establishes spectral gaps for random walks on $SL_n(\mathbb{Z}/q\mathbb{Z})$. Let S be a fixed finite and symmetric subset of $SL_n(\mathbb{Z})$ which generates a Zariski dense subgroup. We show that words of length $C \log(q)$ are almost uniformly distributed among congruence classes modulo q . Unlike in previous results, q is arbitrary and not restricted to any special subset of the integers. A key new ingredient for the proof is the recent work of Bourgain, Furman, Lindenstrauss and Mozes on the equidistribution of non-Abelian semigroup actions on the torus.