

abstract

ARITHMETIC HOMOGENEOUS SPACES

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

We will describe some recent ergodic theorems for general families of averages on semisimple Lie groups, and explain how they can be used to

- 1) Solve the lattice point counting problem for general domains in the group, with explicit estimate of the error term,
- 2) Prove pointwise ergodic theorems for arbitrary measure preserving actions of the lattice, with explicit rate of convergence to the ergodic mean when the action has a spectral gap,
- 3) Prove equidistribution and uniform convergence to the ergodic mean in general ergodic isometric actions of the lattice.