

abstract

ANALYSIS SEMINAR

Topic:

Speaker:

Affiliation:

Date:

Time/Room:

Let p_1, \dots, p_k be integer polynomials of one or several variables. There is a relation between the density of polynomial configurations $a+p_1(n), \dots, a+p_k(n)$ in sets of integers and the form of the closure of the diagonal of X^k under the "polynomial action" $(T^{p_1}, \dots, T^{p_k})$, where X is a "universal" nilmanifold (that is, a compact homogeneous space of a "universal" nilpotent Lie group) and T is a translation of X . It is easy to describe this diagonal in the case all p_i are linear, and not easy when p_i are not linear.