DYNAMICAL APPROACH TO COUNTING LATTICE POINTS

THOMAS ZAMOJSKI

We are given a homogeneous variety defined over $\mathbb{Q}$ and we are concerned with its asymptotical number of integral (or rational) points in a ball of radius R, as R goes to infinity. I will discuss how the study of the distribution of algebraic orbits on Lie groups relates to this counting problem. Similar techniques have been applied to counting rational points. Time permitting, I will discuss some work in progress in that direction.