

# Mathematics Colloquium

**Amos Nevo**

*Technion and IAS*

## **Ergodic Theory and Lattice Points**

*Abstract: The problem of counting integral points on homogeneous algebraic varieties is a natural generalization of such classical problems as the lattice point counting problem in the Euclidean or hyperbolic plane, or the counting of unimodular integral matrices. We will describe a general approach to such counting problems based on ergodic theory, which has the advantage of providing a rather good error estimate. We will then describe how to generalize this approach and develop the ergodic theory of lattice subgroups, a subject that has thus far remained beyond the reach of classical ergodic theory. We will illustrate the results by a number of applications.*

*Based on joint work with Alex Gorodnik.*

**Monday, April 3**

**4:00-5:00 pm**

**204 Smith Hall**

**Please note special day**