מכון ויצמן למדע

THE WEIZMANN INSTITUTE OF SCIENCE

FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Seminar in Geometry and Topology

Room 290C ,Ziskind Building
on Tuesday, Aug 23, 2016
at 16:00

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Homogeneous dynamic, hyperbolic geometry and cone conjecture

Abstract:

Hyperbolic manifold is a Riemannian manifold of constant negative curvature and finite volume. Let S be a set of geodesic hypersurfaces in a hyperbolic manifold of dimension >2. Using Ratner theory, we prove that either S is dense, or it is finite. This is used to study the Kahler cone of a holomorphically symplectic manifold. It turns out that the shape of the Kahler cone is encoded in the geometry of a certain polyhedron in a hyperbolic manifold. I will explain how this correspondence works, and how it is used to obtain the cone conjecture of Kawamata and Morrison. This is a joint work with Ekaterina Amerik.

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