SCMS Seminar

BADLY APPROXIMABLE POINTS ON MANIFOLDS AND UNIPOTENT ORBITS IN HOMOGENEOUS SPACES

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Lecture

Time: 4:00-5:00 pm., Friday, Sep. 29, 2017

Venue: Room 2001, East Main Guanghua Tower, Handan Campus

Abstract: We will study n-dimensional badly approximable points on curves. Given a differentiable non-degenerate submanifold in R^n, we will show that any countable intersection of the sets of weighted badly approximable points on the curve has full Hausdorff dimension. This strengthens a previous result of Beresnevich by removing the condition on weights and weakening the smooth condition. Compared with the work of Beresnevich, we study the problem through homogeneous dynamics. It turns out that the problem is closely related to the study of distribution of long pieces of unipotent orbits in homogeneous spaces.