

SCMS Seminar



BIRKHOFF TYPE ERGODIC THEOREM FOR ONE PARAMETER DIAGONAL GROUP ACTION ON HOMOGENEOUS SPACE

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Time: 10:30-11:30 am., Thursday, March 30, 2017

Venue: Room 2201, East Main Guanghua Tower, Handan Campus

Abstract: The action of a one parameter diagonal group on the quotient of a semisimple Lie group by an irreducible lattice is ergodic. Therefore by Birkhoff ergodic theorem, the trajectory of almost every point with respect to the probability Haar measure is uniformly distributed. It is known that the set of points whose trajectories are not uniformly distributed has full Hausdorff dimension. We show that the conclusion of Birkhoff's theorem still holds for generic points of a measure supported on a set which are singular to the probability Haar measure. In certain cases, we also get the rate of convergence in Birkhoff's theorem.