

***SIMULTANEOUSLY BOUNDED AND DENSE ORBITS FOR
COMMUTING CARTAN ACTIONS***

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Time: Wednesday, September 17th; 14:00-15:00pm

Venue: Room 102, SCMS

Abstract:

With the goal to attack Uniform Littlewood's Conjecture proposed in [BFK25], we introduced the concept of "fiberwise nondivergence" for the action of a cone inside the full diagonal subgroup of $SL_3(\mathbb{R})$. Then it is proved in our paper that there exists a dense subset of $SL_3(\mathbb{R})/SL_3(\mathbb{Z})$ in which each point has a fiberwise non-divergent orbit

under a cone inside the full diagonal subgroup and an unbounded orbit under every diagonal flow. Our proof also presented the first instance of results concerning simultaneously bounded and dense orbits for commuting actions on noncompact spaces. This is a joint work with Dmitry Kleinbock.