Jinpeng An, **Bounded orbits on the space of 3-dimensional unimodular lattices.**

We show that for any countably many one-parameter diagonalizable subgroups F_n of SL(3,R), the set of points in the space of 3-dimensional unimodular lattices such that all the F_n-orbits are bounded has full Hausdorff dimension. The proof involves hyperplane absolute winning (HAW) property and Diophantine approximation. This is a joint work with Lifan Guan and Dmitry Kleinbock.