

On asymptotic properties of linear groups

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Time **Thursday, June 8, 2017 at 15:00**

Place **Campus Belval, MNO, E05-0515330 (5th floor)**

This talk will be on certain probabilistic and deterministic asymptotic properties of linear semisimple groups. More precisely, we will focus on Zariski dense subgroups of $G = \mathrm{SL}(d, \mathbb{R})$: on the probabilistic side, after having recalled classical results of Furstenberg, Kesten, Le Page, Guivarc'h, Benoist and Quint, we will talk about large deviations and discuss the analogue of Cramér's theorem for linear groups. On deterministic side, we will introduce a new notion of limit set, intimately related to the notions of Benoist limit cone and joint spectral radius, which we will briefly recall. Finally, we shall relate both aspects and present some open questions (partly joint work with Emmanuel Breuillard).