
THE WEIZMANN INSTITUTE OF SCIENCE
FACULTY OF MATHEMATICS AND COMPUTER SCIENCE
Algebraic Geometry and Representation Theory Seminar

Room 155 ,Ziskind Building
on Wednesday, Jan 11, 2023at 17:00

Will also be transmitted by Zoom: <https://weizmann.zoom.us/j/98304397425>
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Random and mean Lyapunov exponents for $GL(n, \mathbb{R})$

Abstract:

We consider orthogonally invariant probability measures on $GL_n(\mathbb{R})$ and compare the mean of the logs of the moduli of eigenvalues of the matrices to the Lyapunov exponents of random matrix products independently drawn with respect to the measure. We give a lower bound for the former in terms of the latter. The results are motivated by Dedieu-Shub. A novel feature of our treatment is the use of the theory of spherical polynomials in the proof of our main result. This is a joint work with Diego Armentano, Gautam Chinta, and Michael Shub.