



Seminar/Talk

# Singular Values of Random Matrix Products and Random Band Matrices

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The Furstenberg-Kesten theorem asserts that the singular values of a product of IID random matrices grow or decay exponentially at deterministic rates, called Lyapunov exponents. Classical results give qualitative criteria ensuring that these exponents are distinct and or positive, but many applications, e.g. the theory of random band matrices, require quantitative estimates. We discuss such estimates and their connections to localization for random band matrices. In particular, we show the Lyapunov exponents associated with a class of  $2W \times 2W$  transfer matrices are separated at scale  $1/W$ , and the top Lyapunov exponent converges to a deterministic limit as  $W$  tends to infinity.

**Tuesday, June 30, 2026 04:15pm - 05:15pm**

Office Bldg West / Ground floor / Heinzl Seminar Room (I21.EG.101)



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.

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