



## Probability Seminar

# Spectral properties of non-normal Toeplitz matrices under random perturbation

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### Abstract

Non-normal matrices often display striking spectral instability: even exponentially small perturbations can cause large movements of their eigenvalues. In this talk, I will describe recent progress on how random perturbations influence the spectra of non-normal Toeplitz matrices. In particular, we will see that sub-exponentially additive random perturbation regularizes the spectrum, in the sense of Śniady, whereas an exponentially small perturbation gives rise to a qualitatively different limiting behavior.

Date:	November 6, 2025 (Thursday)
Time:	5:00 – 6:00 pm
Venue:	ZOOM: <a href="https://hku.zoom.us/j/">https://hku.zoom.us/j/</a> Meeting ID: 912 8937 5302 Password: 737428

*All are welcome*