



Probability Seminar

Matrix Chaos Inequalities and Chaos of Combinatorial Type

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Abstract

Matrix concentration inequalities and their recently discovered sharp counterparts provide powerful tools to bound the spectrum of random matrices whose entries are linear functions of independent random variables. However, in many applications one encounters more general random matrix models, called matrix chaoses, whose entries are polynomials of independent random variables. In this talk, we will discuss how to develop general matrix concentration inequalities for matrix chaoses, allowing these models to be treated in a systematic and unified way. Joint work with Kevin Lucca, Petar Nizić-Nikolac, and Ramon van Handel.

Date:	December 11, 2025 (Thursday)
Time:	5:00 – 6:00 pm
Venue:	ZOOM: https://hku.zoom.us/j/ Meeting ID: 964 1650 1821 Password: 979665