



## 复旦大学数学科学学院 数学综合报告会

报告题目：On the Hedenmalm-Shimorin estimate of short antidiagonals

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时间：2020-10-23 星期五 10:00-11:00

地点：光华楼东主楼 1801, 腾讯会议 ID: 646 433 687

报告摘要：

Based on analysis of pairs of Gaussian Analytic functions of Dirichlet type, Hedenmalm and Shimorin obtained very recently a sharp estimate of short antidiagonals for contrative operators on Hilbert space. In this talk, I will present an elementary and direct proof of such estimates and generalize the estimates to higher order tensors. We find also an application of our work in the following problem: consider three sequences of random variables  $(X_n), (Y_n), (Z_n)$ , each of which is a sequence of i.i.d. Gaussian random variables, but no a priori knowledge is known on their joint distribution, what can we say about the joint moments  $E(X_i Y_j Z_k)$ ? This talk is based on a joint work with Yong HAN and Zipeng WANG.

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