



## 复旦大学数学科学学院 数学综合报告会

报告题目: Recent progress on the Dry Ten Martini Problem

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报告摘要:

The spectrum of a bounded self-adjoint operator is a compact set on the real line. While often simple, this set can be highly complex, for instance, taking the form of a Cantor set. In the context of one-dimensional quasiperiodic Schrödinger operators, there is strong evidence suggesting that Cantor spectrum is the rule rather than the exception. This was famously confirmed for the almost Mathieu operator by Avila and Jitomirskaya, who solved the "Ten Martini Problem." However, the harder "Dry Ten Martini Problem"—which asks whether all theoretically possible gaps are actually open—remains unsolved for the original model. In this talk, I will present progress on this problem and overview the key dynamical tool: symplectic cocycle analysis.

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