



复旦大学数学科学学院 数学综合报告会

午间学术报告会（一百三十九）

报告题目：The Beurling--Wintner problem and analytic number theory

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报告时间：2021-09-24 星期五 12:00-13:00

报告地点：光华东主楼 1801

摘要：

This talk concerns a long-standing problem on completeness of function systems generated by odd periodic extensions of functions in $L^2(0,1)$. This problem, raised by Beurling and Wintner in the 1940s, is closely related to the Riemann Hypothesis. We completely solve the rational version of step functions (that is, for those functions with rational jump discontinuities) by approaches from analytic number theory, and present several deep applications including a complete solution to the rational version of Kolzov completeness problem. This is a joint work with Dr. Hui Dan.

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