



复旦大学数学科学学院 数学综合报告会

午间学术报告会（一百九十七）

报告题目：Hausdorff dimension of fractal sets through Selberg, Ihara and Berkovich

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报告时间：2025-12-05 星期五 12:00-13:00

报告地点：光华东主楼 2201

摘要：

We study a family of fractal sets, derived from Schottky groups, whose Hausdorff dimensions degenerate to zero. To compute the rate of this convergence, we employ the Selberg zeta function of the associated hyperbolic Schottky surfaces.

We prove that, after a suitable rescaling, these Selberg zeta functions converge to the Ihara zeta function of a limiting finite graph. This graph is associated to the relevant non-Archimedean Schottky group acting on the Berkovich projective line. From this, we also obtain the limiting behavior of resonances for the degenerating family of Schottky groups.

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