



复旦大学数学科学学院 数学综合报告会

午间学术报告会（一百九十六）

报告题目：Fourier and Microlocal Methods
for Computational Wave Propagation

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报告时间：2025-11-28 星期五 12:00-13:00

报告地点：光华东主楼 2201

摘要：

Wave propagation is ubiquitous in physical phenomena. Mathematically, Fourier and microlocal methods serve as robust tools for elucidating the analytical and geometric structures of wave propagation. However, wave propagation in numerical simulation and inversion remains highly challenging in both traditional computational mathematics and machine learning, owing to the highly oscillatory nature of waves and the complexity of propagation media. The integration of Fourier and microlocal methods into computational wave propagation proves useful in reducing computational cost. This talk shall discuss several existing works and recent advances from this perspective.

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