



复旦大学数学科学学院 数学综合报告会

午间学术报告会（七十一）

报告题目：亥姆霍兹方程多频反源问题

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报告时间：2016-11-25 星期五 12:00-13:00

报告地点：光华东主楼 1501

摘要： In this talk, we investigate an interior Helmholtz inverse source problem with multiple frequencies. By implementing sharp uniqueness of the continuation results and exact observability bounds for the wave equation, a (nearly Lipschitz) increasing stability estimate is explicitly obtained for Cauchy measurements in a non-empty wave-number interval. With a specific geometric domain, an iterative/recursive reconstruction algorithm is proposed aiming at recovering unknown sources by the multifrequency boundary measurement. Both convergence and error estimates are derived to guarantee its reliability. Numerical examples verify the efficiency of our proposed algorithm.

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