



## 复旦大学数学科学学院 数学综合报告会

报告题目:

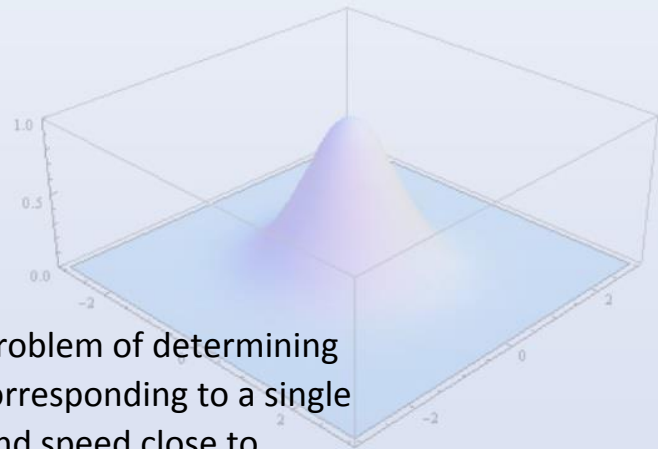
报告人:

时间: 2022-0 -06 星期二

地点: 密 1801

报告摘要:

We study the fixed angle inverse scattering problem of determining a sound speed from scattering measurements corresponding to a single incident wave. The main result shows that a sound speed close to constant can be stably determined by just one measurement. Our method is based on studying the linearized problem, which turns out to be related to the acoustic problem in photoacoustic imaging. We adapt the modified time-reversal method from P. Stefanov and Schlmann, Thermoacoustic tomography with variable sound speed, Inverse Problems 2 (2006), 011 to solve the linearized problem in a stable way, and use this to give a local uniqueness result for the nonlinear inverse problem.



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