


复旦大学数学科学学院
数学综合报告会

报告题目：The fixed angle inverse scattering problem

报告人：Rakesh（University of Delawave）

时间：2025-04-16 星期三 13:30-14:30

地点：光华东主楼1601

报告摘要：

Wave propagation in an inhomogeneous acoustic medium may be modeled, for example, by the wave operators $\Box+q(x)$, $\rho(x)\partial_t^2-\Delta$ or $ \partial_t^2-\Delta_g$, for a function $q(x)$, a positive function $\rho(x)$ or a Riemannian metric $g(x)$, which are homogeneous outside a ball. The medium is probed by plane waves coming from a finite number (dimension dependent) of different directions, and the resultant time dependent waves are measured on the boundary of the ball. We describe our partial results about the recovery of q,ρ,g from these boundary measurements. These are long standing formally determined open problems. These results were obtained in collaboration with Lauri Oksanen and Mikko Salo.

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