



深圳北理莫斯科大学

УНИВЕРСИТЕТ МГУ-ППИ В ШЭНЬЧЖЭНЕ

SHENZHEN MSU-BIT UNIVERSITY

# 应用数学讲座

Научный Семинар по Прикладной Математике  
Research Seminar on Applied Mathematics

## 应用数学报告 (94)

报告人 / Докладчик / Speaker: 杨扬 副教授 Michigan State University

题目 / Название / Title: Non-Iterative Reconstruction of Acoustic  
Speeds/Potential from Near-Field Data

时间 / Время / Time: 2023.12.20

地点 / Место / Venue: 主楼336

摘要 / Аннотация / Abstract:

We present a non-iterative method as well as its linearization to reconstruct an isotropic acoustic speed from the near-field data represented by the Neumann-to-Dirichlet map. The algorithm is designed based on the boundary control method and involves only stable computation. Numerical validation is provided with both full and partial data.

杨扬副教授简介:

Yang Yang is an Associate Professor in the Department of Computational Mathematics, Science and Engineering, Michigan State University. He received the bachelor's degree from Zhejiang University in 2009, and PhD in math from the University of Washington in 2014. Before joining MSU, he worked as a Golomb Visiting Assistant Professor 2014-2017 at Purdue University. Yang is a recipient of the NSF CAREER award. His research interest is theoretical and computational inverse problems as well as their applications in tomographic image reconstruction.