



复旦大学数学科学学院

数学综合报告会

报告题目: The insulated and perfect conductivity problems with p -Laplacian

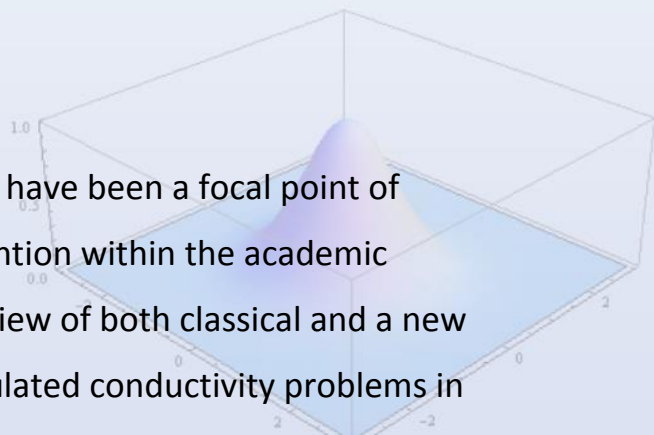
报告人: 董弘桀 教授 (Brown University)

时间: 2024-06-12 星期三 10:00-11:00

地点: 光华东主楼2001

报告摘要:

Elliptic equations arising from composite materials have been a focal point of research for many years, garnering significant attention within the academic community. In this talk, I will first provide an overview of both classical and a new breakthrough related to the linear perfect and insulated conductivity problems in composite materials. Then I will discuss recent results when the current-electric field relation is a power law. This physical model finds application in a variety of materials, including dielectrics, plastic molding, plasticity phenomena, etc. Our approach to these problems involves leveraging various tools from elliptic theory, with a particular emphasis on mean oscillation estimates. This research represents a collaborative effort with Zhuolun Yang and Hanye Zhu from Brown University.



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