

23(2)

ON THE UNIQUE CONTINUATION PROPERTIES FOR ELLIPTIC OPERATORS WITH SINGULAR POTENTIALS

陶祥兴

宁波大学理学院数学系University, Ningbo 315211, P. R. China)

收稿日期 2004-9-22 修回日期 网络版发布日期 2007-1-16 接受日期 2005-6-7

摘要

关键词 [doubling property](#) [unique continuation](#) [Lipschitz domain](#) [Kato--Fefferman--Phong s potential](#)

分类号 [35B60](#)

ON THE UNIQUE CONTINUATION PROPERTIES FOR ELLIPTIC OPERATORS WITH SINGULAR POTENTIALS

Xiang Xing TAO

Department of Mathematics, Faculty of Science, Ningbo University, Ningbo 315211, P. R. China

Abstract Let u be a solution to a second order elliptic equation with singular potentials belonging to Kato--Fefferman--Phong's class in Lipschitz domains. An elementary proof of the doubling property for u^2 over balls is presented, if the balls are contained in the domain or centered at some points near an open subset of the boundary on which the solution u vanishes continuously. Moreover, we prove the inner unique continuation theorems and the boundary unique continuation theorems for the elliptic equations, and we derive the ω_p weight properties for the solution u near the boundary.

Key words [doubling property](#) [unique continuation](#) [Lipschitz domain](#) [Kato--Fefferman--Phong s potential](#)

DOI: 10.1007/s10114-005-0869-x

通讯作者 陶祥兴 taoxiangxing@nbu.edu.cn

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(0KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [复制索引](#)
- ▶ [Email Alert](#)

- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

相关信息

- ▶ [本刊中 包含“doubling property”的相关文章](#)
- ▶ [本文作者相关文章](#)
- [陶祥兴](#)