

Vol.22(3)

An upper and lower solution theory for the problem $(G'(y))' + f(t,y) = 0$ on finite and infinite intervals

Ravi P. AGARWAL(1), Donal O-REGAN(2), Svatoslav STANEK(3)

(1)Department of Mathematical Sciences, Florida Institute of Technology, Melbourne, Florida 32901-6975, USA; (2)Department of Mathematics, National Univ. of Ireland, Galway, Ireland; (3)Department of Mathematical Analysis, Faculty of Science, Palacky University, Tomkova 40, 779 00, Olomouc, Czech Republic

收稿日期 2003-11-3 修回日期 网络版发布日期 2005-10-14 接受日期 2004-10-9

摘要

关键词 [upper and lower solutions](#) [infinite interval](#) [diagonalization process](#) [Leray--Schauder alternative](#)

分类号 [34B15](#)

An upper and lower solution theory for the problem $(G'(y))' + f(t,y) = 0$ on finite and infinite intervals

Ravi P. AGARWAL(1), Donal O-REGAN(2), Svatoslav STANEK(3)

(1)Department of Mathematical Science, Florida Institute of Technology, Melbourne, FL32901; (2) Department of Mathematics, National Univ. of Ireland, Galway, Ireland; (3) Department of Mathematical Analysis, Faculty of Science, Palacky University, Tomkova 40, 779 00, Olomouc, Czech Republic

Abstract A new upper and lower solution theory is presented for the second order problem $(G'(y))' + f(t,y) = 0$, on finite and infinite intervals. The theory on finite intervals is based on a Leray--Schauder alternative, whereas the theory on infinite intervals is based on results on the finite interval and a diagonalization process.

Key words [upper and lower solutions](#) [infinite interval](#) [diagonalization process](#) [Leray--Schauder alternative](#)

DOI: 10.1007/s10114-005-0635-0

通讯作者 Ravi P. AGARWAL agarwal@fit.edu

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 “[upper and lower solutions](#)”的 相关文章
- ▶ 本文作者相关文章

- [Ravi P AGARWAL](#)
- [Donal O-REGAN](#)
- [Svatoslav STANEK](#)