DMat
Universidade de Aveiro

SEMINAR
Grupo de Análise Funcional e Aplicações
Functional Analysis and Applications Group

Strictly positive solutions of Neumann boundary value problems and applications to Duffing type models

Gustavo Cicchini Santos
Toronto Metropolitan University

Abstract

The existence of one or two strictly positive solutions of Neumann boundary value problems is studied in this paper where the nonlinearities are L^1-Carathéodory functions, so they are not necessarily continuous. Additional weaker and better conditions than those used in previous results are posted on the nonlinearities to obtain these existence results. Applications of these new results are given to Duffing type models arising from mechanical vibrations for the first time.

Room Sousa Pinto
January 14, 2026 - 11:00

---

fct Fundação
para a Ciência
e a Tecnologia

REPÚBLICA
PORTUGUESA