

QUALITATIVE PROPERTIES OF SOLUTIONS OF A PARTIAL
DIFFERENTIAL EQUATION WITH PIECEWISE CONSTANT
ARGUMENTS

Mehtap Lafcı¹, Hüseyin Bereketoğlu²

¹*Ankara University, Ankara, Türkiye*

²*Ankara University, Ankara, Türkiye*

MSC 2000: 35B05, 35B35, 35K05, 39A11

Abstract

In this paper, we study a partial differential equations with piecewise constant arguments. We research existence and uniqueness of the solutions and also investigate oscillation, unstability and stability of the solutions.

Keywords: Partial differential equation, Piecewise constant arguments, Oscillation, Stability

References

- [1] *J. Wiener. Generalized Solutions of Functional Differential Equations. World Scientific, Singapore, 1994.*
- [2] *H. Liang and G. Wang. Existence and uniqueness of periodic solutions for a delay differential equation with piecewise constant arguments. Port. Math. , 66(1):1-12, 2009.*

¹e-mail: mlafci@ankara.edu.tr

²e-mail: bereket@science.ankara.edu.tr