Test Paper

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Abstract

In this paper, we are concerned with the existence of solutions for the Bakada equation.

AMS subject classification. 00X00.

1 Introduction

In this paper, we discuss the initial boundary value problem of the following Bakada equation with the homogeneous Dirichlet boundary condition.

$$\beta a = ka\Delta a, \ x \in \Omega, \tag{1}$$

where Ω is a bounded domain in $\mathbb{R}^3$ with smooth boundary $\partial\Omega$; $a : [0, T] \times \Omega \to \mathbb{R}$ is an unknown function; β and k are positive constants. The Bakada equation was proposed by Kumasan [1] in 1901 as a mathematical model to describe the ecology of bears in Hilbert space.

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References

[1] B. Kumasan, Hilbert space in Nagoya for bears, Mathematical Bear Journal 123 (2) (1901) 12–16.

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