

Hopf bifurcation in a Bazykin-Khibnik model with three parameters

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Abstract

A Hopf singularity in a biological mathematical model with three strictly positive parameters proposed by Bazykin and Khibnik is analyzed. Using the normal forms theory are found the values of the parameters for a nondegenerated or degenerated Hopf singularity.

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1 Introduction

In this paper we study the Hopf bifurcation for a particular predator-prey case of a model proposed by Bazykin and Khibnik [2].

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