

论文

一类含时滞SIS流行病模型的全局稳定性

原三领, 马知恩, 韩茂安

上海理工大学理学院, 西安交通大学应用数学系, 上海交通大学数学系

摘要:

该文研究了一类含有限分布时滞的SIS流行病模型, 利用李亚普诺夫泛函的方法, 得到了地方病平衡点和无病平衡点全局稳定的充要条件. 揭示了时滞对平衡点稳定性的影响.

关键词: 时滞, 李亚普诺夫泛函, 地方病平衡点, 无病平衡点, 全局稳定性.

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Global Stability on an SIS Epidemic Model with Time Delays

YUAN San-Ling, MA Zhi-En, HAN Mao-An

Abstract:

In this paper, the authors study an SIS epidemic model with a finite distributed time delay, by means of Liapunov functional, some sufficient conditions of global stability to endemic equilibrium and disease free equilibrium have been obtained. The influence of time delay on the stability of equilibria is displayed.

Keywords: Time delay Liapunov functional Endemic equilibrium Disease free equilibrium; Global stability.

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通讯作者:

作者简介:

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