

ON LIAPUNOV-TYPE INTEGRAL INEQUALITIES FOR EVEN ORDER DYNAMIC EQUATIONS ON TIME SCALES*

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Abstract

In this paper, Liapunov-type integral inequalities has been obtained for an even order dynamic equations on time scales. As an applications, an estimate for the number of zeros of an oscillatory solution and a criterion for disconjugacy of an even order dynamic equation is obtained in an interval $[a, \sigma(b)]_{\mathbb{T}}$.

MSC: 34 C 10, 34 N 05

keywords: Liapunov-type inequality, disconjugacy, number of zeros, even order dynamic equations.

1 Introduction

The theory of time scales, which has recently received a lot of attention, was introduced by Hilger [12] in his Ph. D. thesis in 1988 in order to unify

*Accepted for publication in revised form on January 3, 2012.

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