

23(4)

Oscillation of Second Order Nonlinear Delay Damped Difference Equations

S. H. SAKER(1), B. G. ZHANG(2)

(1)Department of Mathematics, Faculty of Science, Mansoura University, Mansoura 35516, Egypt; (2) Department of Mathematics, Ocean University of China Qingdao, 266071, P. R. C

收稿日期 2004-6-11 修回日期 2005-3-31 网络版发布日期 2007-3-5 接受日期 2005-5-31

摘要

关键词 [oscillation](#) [second-order difference equations](#) [Riccati techniques](#)

分类号 [39A10](#)

Oscillation of Second Order Nonlinear Delay Damped Difference Equations

S. H. SAKER(1), B. G. ZHANG(2)

(1)Department of Mathematics, Faculty of Science, Mansoura University, Mansoura 35516, Egypt; (2) Department of Mathematics, Ocean University of China Qingdao, 266071, P. R. C

Abstract Some new oscillation criteria for nonlinear delay difference equation with damping $\Delta^2 x_n + p_n \Delta x_n + F(n, x_{n-\tau}, \Delta x_{n-\sigma}) = 0, n = 0, 1, 2, \dots, \text{eqno} \{ (*) \}$ are given. Our results partially solve the open problem posed in [Math. Bohemica, 125 (2000), 421--430]. Also, we will establish some new oscillation criteria for special cases of $(*)$, which improve some of the well-known results in the literature.

Key words [oscillation](#) [second-order difference equations](#) [Riccati techniques](#)

DOI: 10.1007/s10114-005-0792-1

通讯作者 S. H. Saker shsaker@mum.mans.edu.eg

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF\(0KB\)](#)

▶ [\[HTML全文\]\(0KB\)](#)

▶ [参考文献](#)

服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [复制索引](#)

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

相关信息

▶ 本刊中 包含“[oscillation](#)”的
[相关文章](#)

▶ 本文作者相关文章

· [S H SAKER](#)

· [B G ZHANG](#)