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时间尺度上一类二阶具阻尼项的半线性中立型时滞动力方程的振动性

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Oscillation of a Class of Second Order Half-linear Neutral Delay Dynamic Equations with Damping On Time Scales

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摘要 借助时间尺度的有关理论,运用Riccati变换技巧,平均函数技术及不等式技巧,研究了时间尺度上一类二阶具阻尼项的半线性中立型时滞动力方程的振动性,给出该类方程振动的几个充分条件,推广并改进了已有的某些结果.

关键词: 振动性 时滞动力方程 Riccati 变换 时间尺度

Abstract: By means of the theory of time scales, Riccati transformation technique, the averaging functions technique and inequalities, the oscillation behavior for the second order half-linear neutral delay dynamic equations with damping on time scales is studied. Some sufficient conditions are obtained for oscillation of this equation. The results in this paper extend and improve some known results.

Key words: oscillation delay dynamic equations Riccati transformation time scales

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