

HILLE AND NEHARI TYPE OSCILLATION CRITERIA FOR HIGHER ORDER DYNAMIC EQUATIONS ON TIME SCALES

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Abstract. In this paper, we consider the higher order dynamic equation of the form

$$(a(t)(r(t)x^{\Delta^{n-2}}(t))^{\Delta})^{\Delta} + p(t)x(t) = 0, \quad t \geq t_0 > 0,$$

where n is an arbitrary positive integer with $n \geq 3$, t is defined on an arbitrary time scale $\mathbb{T}$ with $\sup \mathbb{T} = \infty$. By Riccati transformation technique and comparison theorem, some Hille and Nehari type oscillation criteria are established. The main results are illustrated by examples.

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