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Limit-Point Criteria for a Second Order Dynamic Equation on Time Scales

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Abstract: In this paper, we establish some criteria under which the second order formally self-adjoint dynamic equation

$$(p(t)x^{\Delta})^{\nabla} + q(t)x = 0$$

is of limit-point type on a time scale \mathbb{T} . As a special case when $\mathbb{T} = \mathbb{R}$, our results include those of Wong and Zettl [11] and Coddington and Levinson [5]. Our results are new in a general time scale setting and can be applied to difference and q-difference equations.

Keywords: time scales; limit-point; limit-circle; second-order equation.

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