OSCILLATION OF SECOND ORDER NONLINEAR DIFFERENTIAL EQUATION WITH SUB–LINEAR NEUTRAL TERM

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Abstract. In this paper the authors established sufficient conditions for the oscillation of all solutions of a nonlinear differential equation

$$\left(a(t)\big(x(t) + p(t)x^{\alpha}\left(\tau(t)\right)\big)'\right)' + q(t)x^{\beta}\left(\sigma(t)\right) = 0, \; t \geqslant t_0,$$

where α and β are ratio of odd positive integers. The results obtained here extend and improve some of the existing results. Examples are included to illustrate the importance of the results.

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