ON LYAPUNOV–TYPE INEQUALITY FOR
A CLASS OF NONLINEAR SYSTEMS

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Abstract. In this paper, we will try to find a new Lyapunov-type inequality for a class of nonlinear systems, special cases of which contain some well-known Hamiltonian system, Emden-Fowler, half-linear and linear differential equations of second order. Our result extends the Lyapunov-type inequality given in [X. Wang, Stability criteria for linear periodic Hamiltonian systems, J. Math. Anal. Appl. 367 (2010), 329-336].


Keywords and phrases: Lyapunov-type inequality, Hamiltonian system, Emden-Fowler equation, half-linear equation, linear equation.

REFERENCES


