

Periodic solutions of a second-order iterative differential equation

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Abstract

In this paper, we use Schauder and Banach fixed point theorem to study the existence, uniqueness and stability of periodic solutions of a class of iterative differential equation
$$\alpha x''(t) + \beta x'(t) + \gamma x(t) = \lambda_1(t)x(t) + \lambda_2(t)x(x(t)) + \dots + \lambda_n(t)x^{[n]}(t) + f(t).$$

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