Fractional Relaxation-oscillation Model with Elzaki Decomposition Method

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ABSTRACT

A fractional differentiation-based model of relaxation and damped oscillation is presented, which is relevant for the physical nature of diverse oscillatory processes with damping. The fractional order relaxation and damped oscillation equation are solved by employing the Elzaki decomposition method (EDM). Observations are visualized graphically by changing the order of the fractional derivative.

Keywords: Elzaki transform, Adomain decomposition method, fractional relaxation oscillation equation.

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