

NEUTRAL DELAY DIFFERENTIAL EQUATION WITH ONE LARGE DELAY

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Abstract

In this paper we study the behaviour of solutions of neutral differential delay system with one large delay

$$\vec{y}' = f(\vec{y}(t), \vec{y}(t-\tau), \vec{y}'(t-\tau)),$$

where $\vec{y} \in \mathbb{R}^n$ by investigate the properties of the eigenvalues for the linearized system

$$\vec{y}' = A\vec{y}(t) + B\vec{y}(t-\tau) + C\vec{y}'(t-\tau).$$

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