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Some simple criteria for stability of neutral delay-differential systems. (English)

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This paper deals with the stability of the linear neutral delay-differential system

$$\dot{x}(t) = Ax(t) + Bx(t - \tau) + C\dot{x}(t - \tau), \quad (1)$$

where A , B , and $C \in \mathbb{R}^{n \times n}$ are constant matrices. The authors present sufficient conditions for the system (1) to be asymptotically stable. The conditions are described by evaluating the measure and norm of corresponding matrices and are delay-independent.

Reviewer: J.Ohriska (Košice)

MSC:

34K20 Stability theory of functional-differential equations

34K40 Neutral functional-differential equations

Cited in **54** Documents

Keywords:

stability theory; linear neutral delay-differential system

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