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Abstracts of Short Communications and Posters

Section:

9. Ordinary Differential Equations and Dynamical Systems

1991 MS Classification: 34

Yebdri, Mustapha, Université de Tlemecen, Algeria:

The linear stability of slowly oscillating periodic solutions of a delay differential equation.

The equation $x'(t) = -\mu x(t) + f(x(t-1)),$ with $\mu 0$ and a smooth function $f : R \to R$ satisfying $f(0) = 0$ and $xf((x) < 0 \forall x \neq 0$, has applications in many domains. Slowly oscillating solutions are very important in the study of the dynamic of this equation. A result on the linear stability of such periodic solutions will be presented. Reference: M. Yebdri, Ph. D Ghesis, University of Giessen, Germany(1996).