

1128-34-75

Liancheng Wang* (lwang5@kennesaw.edu), 1100 South Marietta Pkw, Marietta, GA 30060. *A Complete Analysis for a Differential Equation with Two Delays.*

In this research, we consider a general differential equation with two delays. The analysis for the stability, switch of the stability of the equilibrium, and the occurrence of Hopf bifurcation is carried out for all different parameter values. The stable regions along with the bifurcation curves in the plane of two delays are established. Numerical simulations are provided to confirm the theoretical results. (Received February 13, 2017)