

1109-37-87

Israel Ncube*, Alabama A & M University, Department of Mathematics, 4900 Meridian Street North, Huntsville, AL 35762. *Existence and stability of synchronous and mirror-reflecting equilibria of a neural network.*

We consider a network of three identical neurons with delayed output. The model for such a network is a system of nonlinear delay differential equations, consisting of multiple discrete delays. Our goal in this article is to establish the existence, and to give a detailed account of the linear stability, of synchronous and mirror-reflecting equilibria. (Received January 24, 2015)