1063-39-27

Saber N Elaydi^{*} (selaydi@trinity.edu), One Trinity Place, San antonio, TX 78212. Bifurcation and invariant manifolds of competition models. Preliminary report.

The talk will focus on competition models. We will investigate stability and bifurcation of these models. In particular, we compute the invariant manifolds, including the important center manifolds, and study their bifurcation. Saddle-node and period doubling bifurcation route to chaos is exhibited via numerical simulations. (Received July 06, 2010)