1077-39-1237   **Saber N Elaydi*** (`selaydi@trinity.edu`), One Trinity Place, San Antonio, TX 78212, and **Rafael Luis**, Lisbon, Portugal. *When does local stability imply global stability in planar competition models?*

Our main objective is to show that, for certain planar discrete competition models, local stability implies global stability. In particular, we prove global stability of the positive fixed point for the classical Ricker competition model and for the logistic competition by utilizing a combination of analytic and topological tools specific to planar dynamical systems. In addition, the theory of critical curves will play a central role in our analysis. Our method for establishing global stability can be extended and generalized to include a large class of nonlinear planar maps. (Received September 18, 2011)