Saber N Elaydi* (selaydi@trinity.edu), One Trinity Place, San Antonio, TX 78212, and Eduardo Balreira and Rafael Luis. Global Stability of a class of non-monotone competition models via singularity theory. Preliminary report.

In this talk we will focus on the two-dimensional Ricker competition model. Our main objective is to show that, under certain conditions on the parameters, local stability of the interior fixed point implies global stability. The main tools of the investigation are Whitney's singularity theory and the theory of critical curves. The results are partial and much work is still needed to have a complete theory. (Received September 24, 2012)