The goal of this reading assignment is to give you a taste of how sensitivity analysis is used in the literature. The focus of this paper is on the relative effects of different parameters.


(1) Why do the authors perform the analysis for four sets of parameters? What characterizes each of the sets?

(2) What are the two types of sensitivity measures that the authors use?

(3) Bifurcation analysis determines parameter values at which there is a qualitative change in behavior (such as the transition from non-oscillatory dynamics to oscillatory dynamics). Accompanying sensitivity analysis is a bifurcation analysis. Describe Figures 4 through 8. What makes them bifurcation diagrams? What can we learn from them?

(4) What do the authors mean by “multiplicity of oscillatory mechanisms”?