1163-92-1270   **Margaret A Grogan*** (`mgrogan1@vols.utk.edu`) and **Olivia Prosper**. *Exploring Reproduction Numbers of Two Malaria Models.* Preliminary report.

Reproduction numbers are the go-to threshold to calculate for infectious disease models in order to determine if an outbreak will die out or not. In my exploration and derivation of two Malaria models, I have dealt with trying to calculate these thresholds and think about them not only as algebraic groupings of parameters but as biologically interpretable expressions. In this talk, I will describe the processes and methods I used to calculate reproduction numbers for two of my current working models for Malaria, analyze them with a biological perspective, and present some interesting results and plots (Received September 15, 2020)