Figure 4 - Toggle Triad

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Programs and Plot Reproduction

The figures in this folder can be reproduced from the code in the folder "Code".

- 1. dynamics.py file for the ODE Plots
- 2. triad2d.py for the 2D Diffusion enabled plots.

Parameters can be controlled very easily in triad2d.py. The comments in the file should provide a lucid experience.

Note: There are known issues with rendering these videos. Use google collab for seamless usage.

Data

The data.xlsx file contains the parameter sets in the "deets" sheet. The curated parameter sets are from a much larger collection which is also available in the data.xlsx file under different sheets.

Plot Contents

Each subfolder of a particular plot will have

- 1. Images for the three morphogen levels at the end of the simulation.
- 2. A video of the simulation for the first morphogen
- 3. A video of the simulation in the special color scheme. The resources folder will have the colorscheme
- 4. An ODE plot demonstrating the dynamics of the system in without diffusion.
- 5. A histogram of the distribution of the states.