

## Assignment 2: Figures and tables

### Patient Alpha

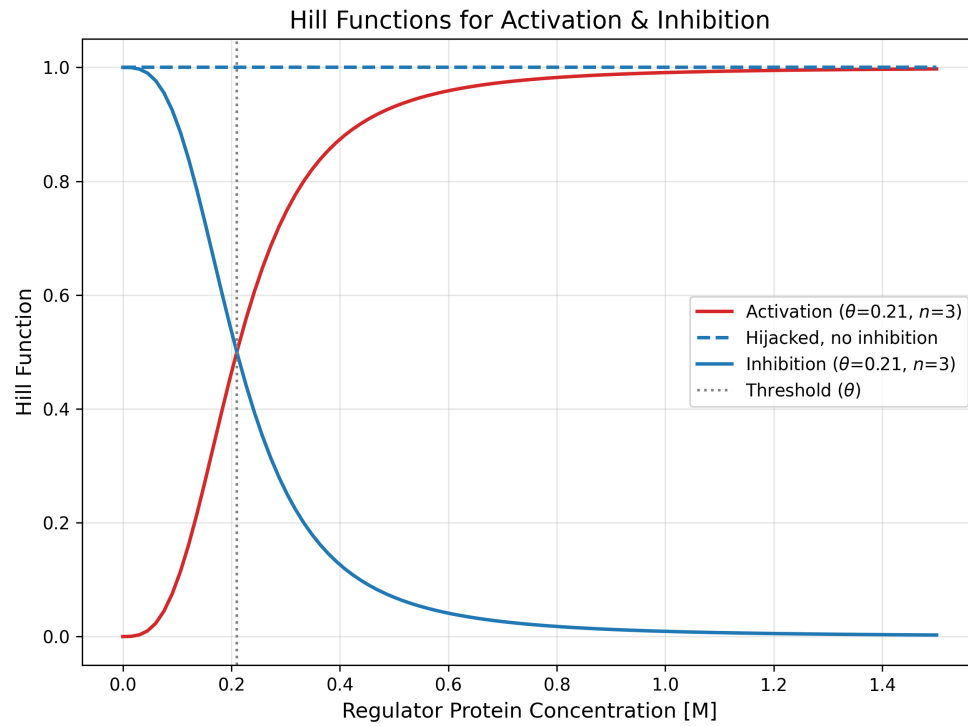
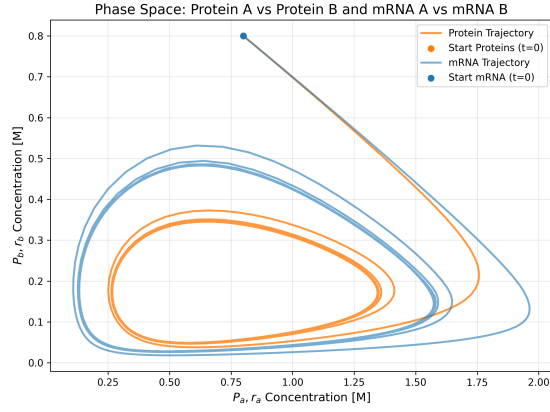
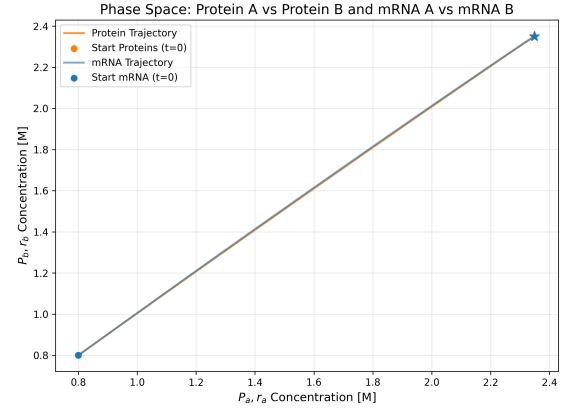


Figure 1: Activation and Inhibition Hill Functions

### Patient Beta

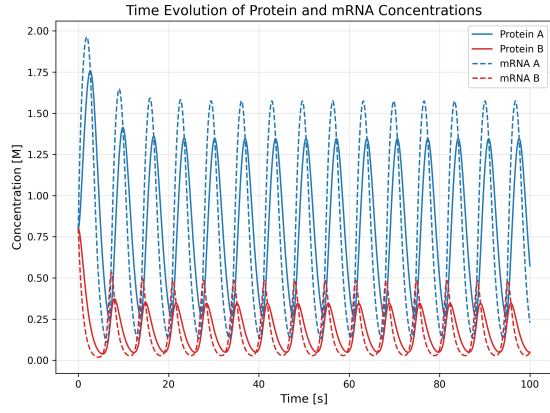


(a) Healthy State

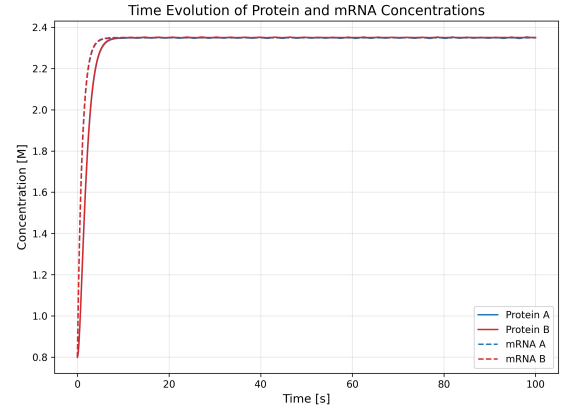


(b) Hijacked State

Figure 2: Phase Portrait of Proteins and mRNAs concentrations for Patient Alpha

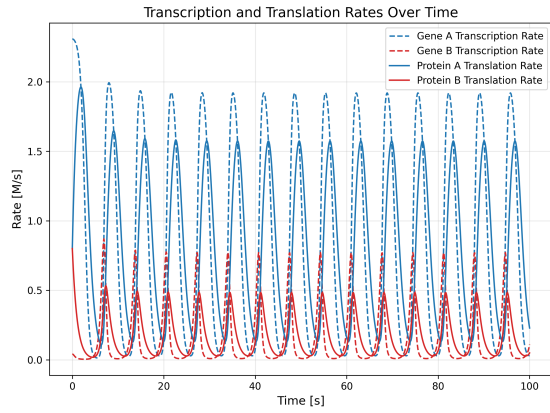


(a) Healthy State

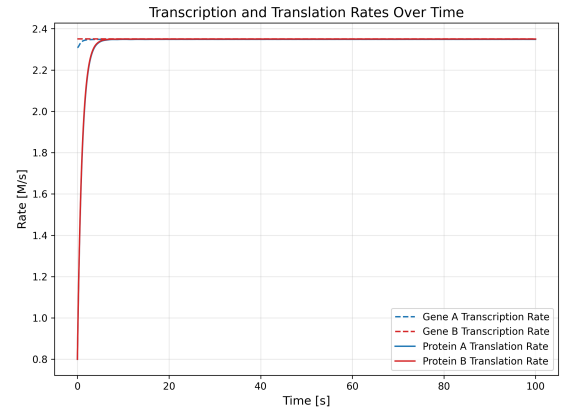


(b) Hijacked State

Figure 3: Concentration of Proteins and mRNAs overtime for Patient Alpha



(a) Healthy State



(b) Hijacked State

Figure 4: Translation and Transcription Rates overtime for Patient Alpha

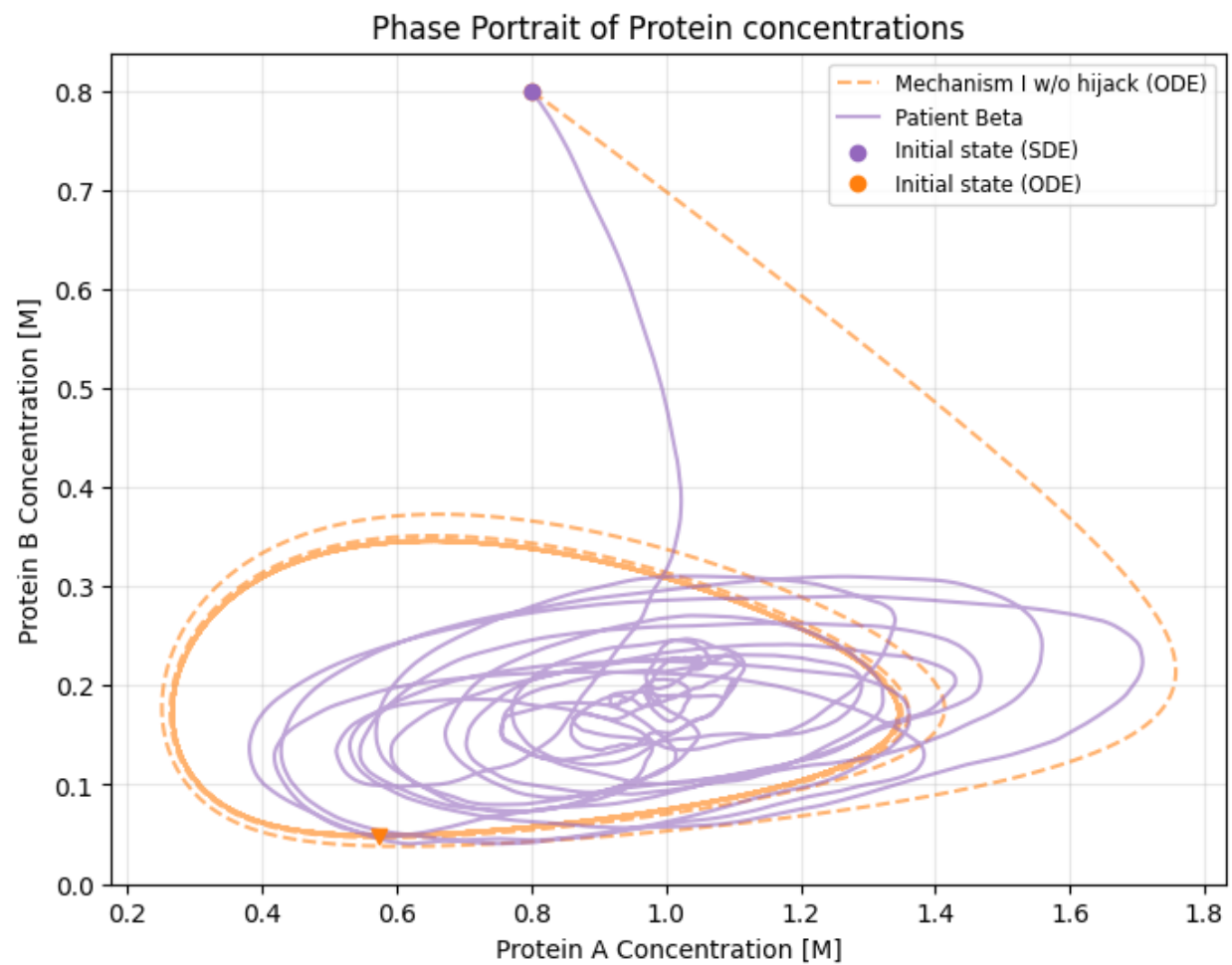


Figure 5: Phase Portrait of the Protein concentrations of Patient Beta

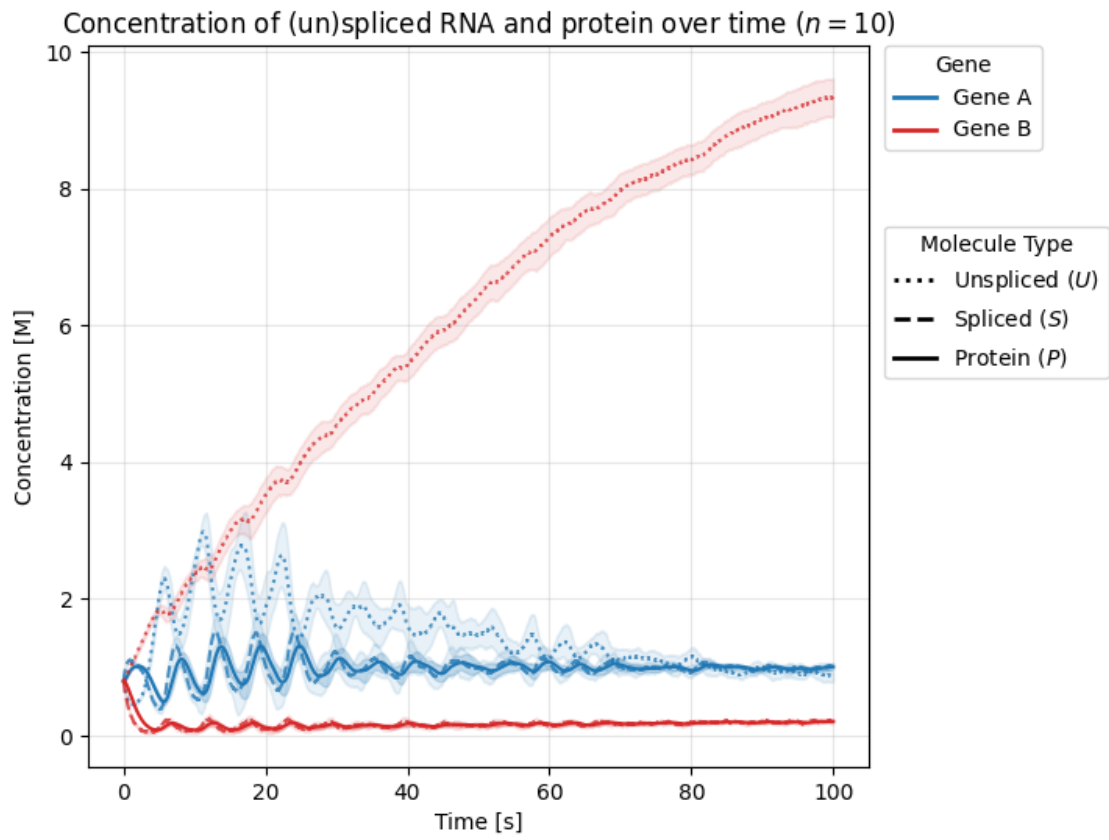


Figure 6: Comparison of the (average) concentration of protein over time from ODE versus 10 SDEvelo simulations with 95% confidence interval

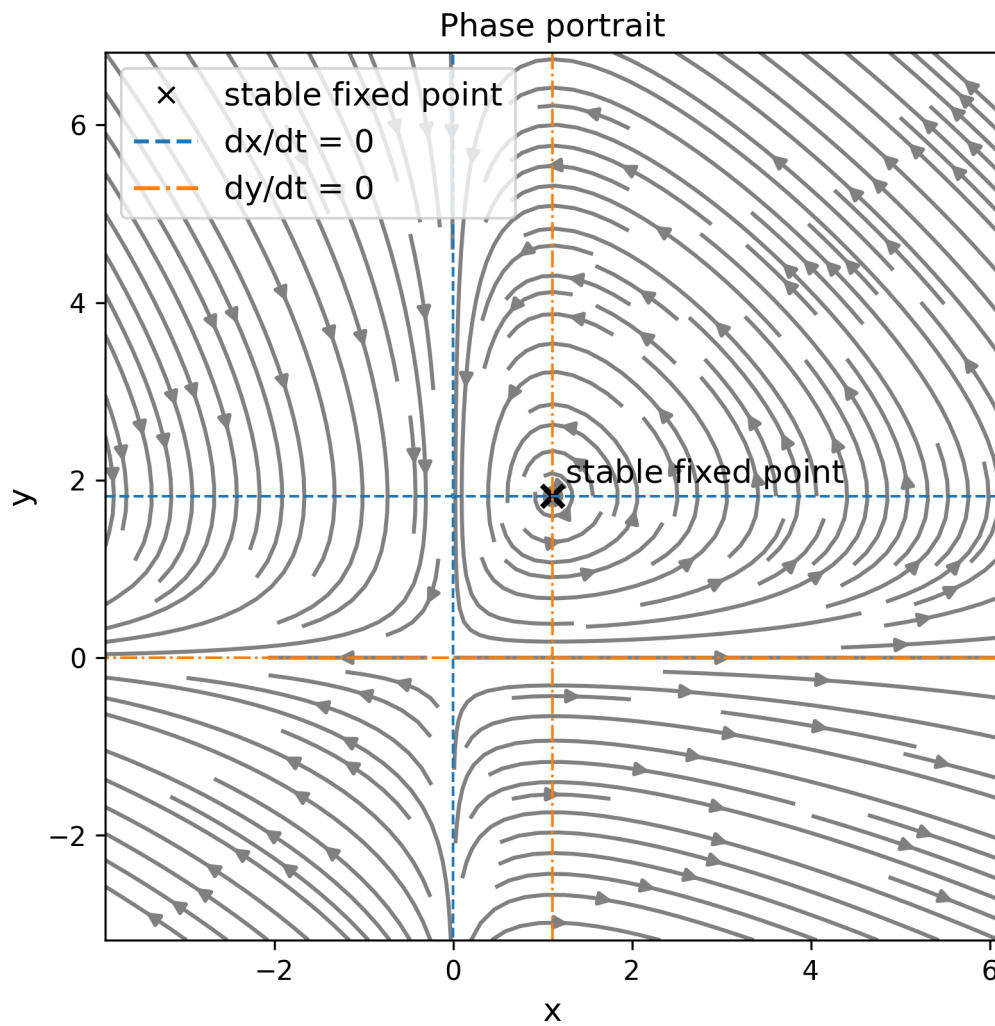


Figure 7: Stream plot with equilibrium point and nullclines for interaction between metabolite R, and growth-promoting enzyme E