The second write-up is mostly focused on simulations but simulation results need to be put into context in a short written document.

Project due date is Wed 5/4 at midnight.

For the simulations you should:

- Simultate the incoherent feedforward network introduced in class and demonstrate that you get a stripe of gene expression in response to an exponential spatial gradient of the activating input
- Simulate the bistable system introduced in class and demonstrate that you get bistability in response to an exponential gradient of an activation input.
- Simulate the activator inhibitor pattern of Diambra et al. or a similar system. Demonstrate that you get Turing patterning from an initially homogenous system in the presence of noise.

Your grade will be better if your simulation is more realistic: E.g. numerically solve the full differential equation rather than the steady state version, explicitly simulate mRNA dynamics rather than assuming mRNA is in steady state, use realistic parameters and provide references for the parameter,…

In the written discussion you should put your results into context. For example, you could talk about what paramters you had to chose to get pattern formation, how the type of patterns you get changes with the parameter values or anything else interesting. Moreover, the write-up should contain a few references (e.g. to paper containing parameters used, biological systems that similar to the systems you are simulating,…).