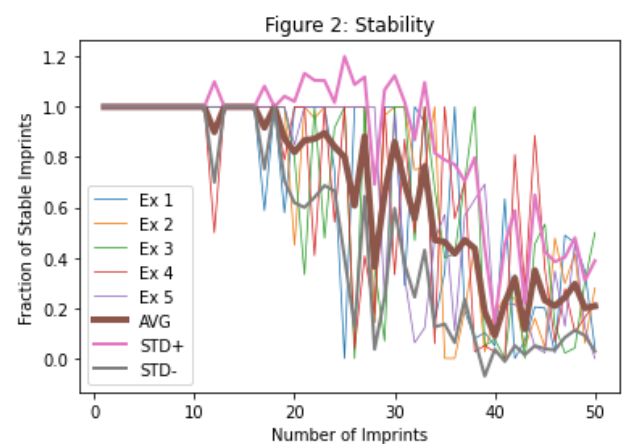
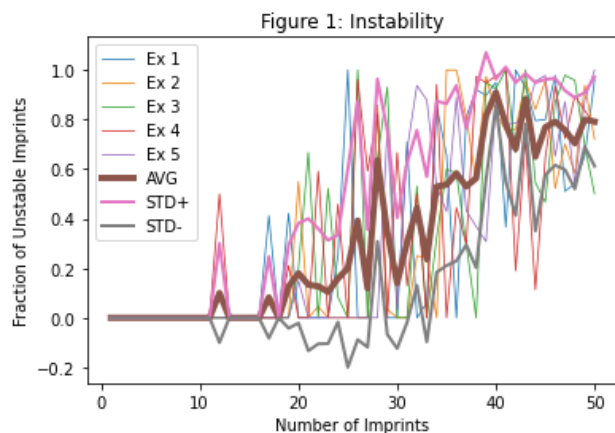


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CS 420

Lab 3 Report

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A decent amount of variance in the capacity is present across the five experiments. As you can see above, both figures are filled cluttered, spiking lines. The standard deviation is also not close to the mean (when the imprint total is between 20 and 45), indicating variance. The standard deviation reaches 0.48 at 24 total imprints. It is safe to say this indicates variance and “significant difference” among the 5 experiments.

There is definitely a maximum capacity for the networks. Most of these networks maxed out (100% stability rate) at around 33 to 40 imprints for the final time before losing stability rapidly down the stretch. The only exception here was experiment number 5, which maxed at 27 total imprints. This isn't even that far off from the range for the other 4 experiments. Despite the variance across the experiments as a whole, this indicates consistency when it comes to the maximum capacity for this type of hopfield network.