

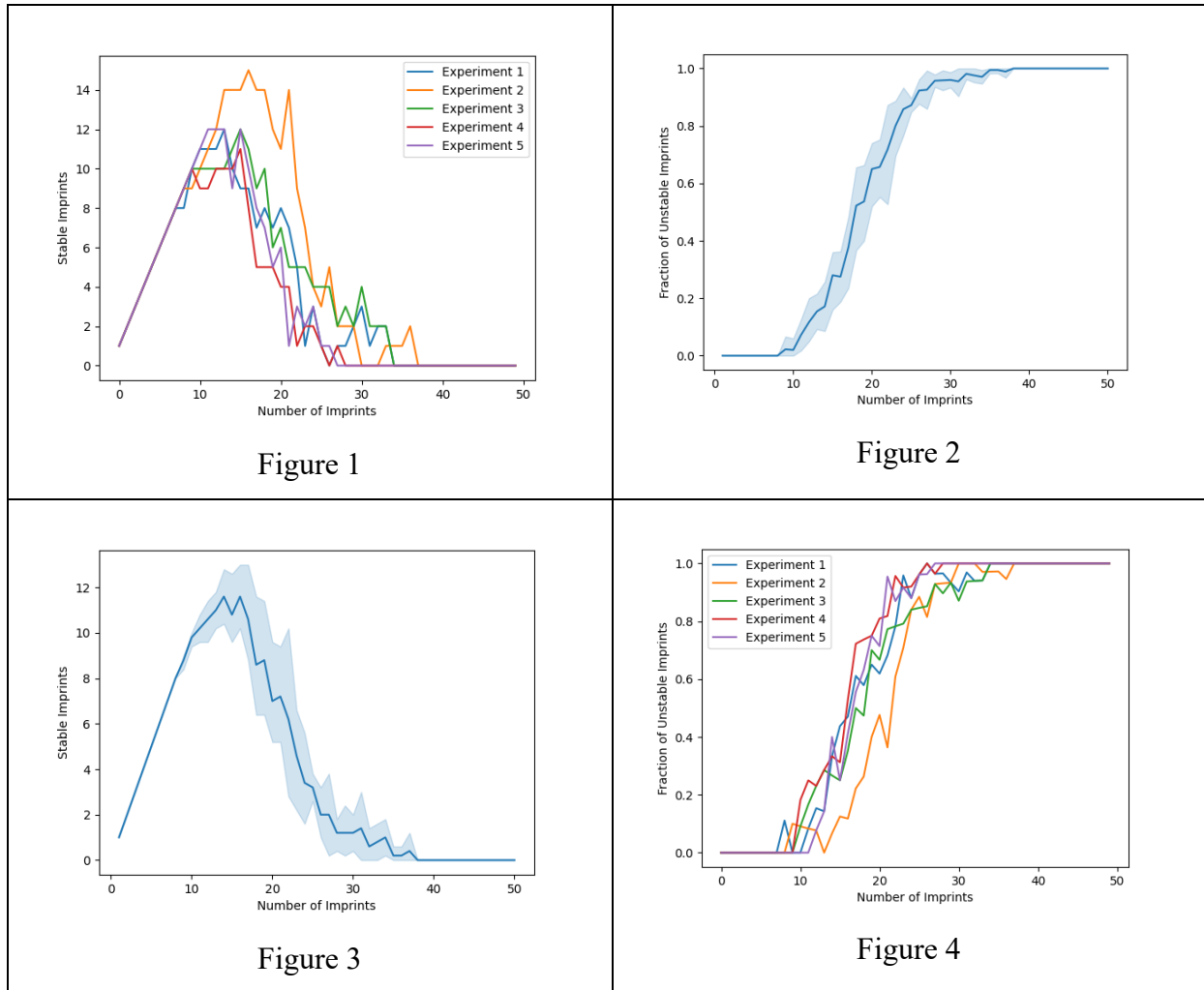
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Lab 3: Hopfield Networks

Graphs:



Discussion:

- How much variation did you see in capacity across the experiments? Were there significant changes across experiments?

If we look at Figure 1 and 3, we can see that the curves are bunched together. Experiment 2 did seem to have a higher stable probability (and conversely lower unstable probability) than the other experiments. The other curves in Figure 1 are close together and Experiment 2 stands out. If we look at the averages from the graphs in Figure 2 & 3, we can see that the variation begins out much tighter, and then becomes more varied at the values from [8..38]. This is likely because most of the lower values are more stable and there is almost no stability amongst the higher values.

- Does it appear that there's a maximum capacity of the network? When does the maximum capacity occur?

We can see that there is a peak at around 14 patterns that are imprinted. After this point there is a pretty steep drop off, and plummets to 0 and becomes unstable very quickly. Experiment 2 does have some at higher values, but it is the only one that does, and it is clear to see that almost all experiments are peaking at around 14-15.