Assignment 4: Model-Based RL and Exploration

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NOTE: Please do **NOT** change the sizes of the answer blocks or plots.

1   Problem 1: Dynamics Model Training – [10 points total]

Theory questions

The third model performs the best, because more training steps per iteration improves convergence, and larger MLP interpolates better.
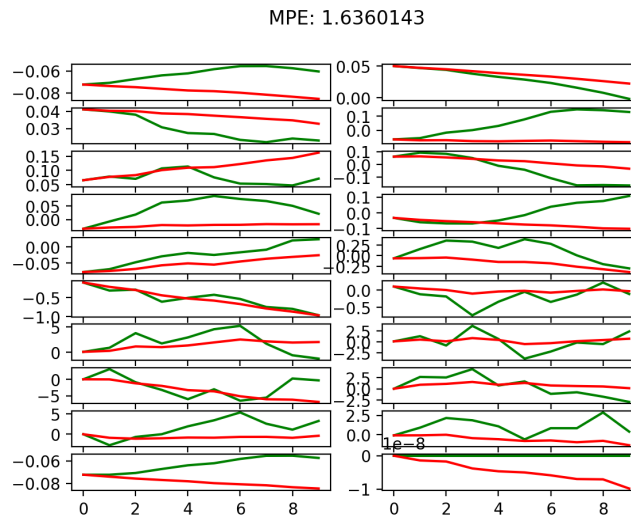

Plot

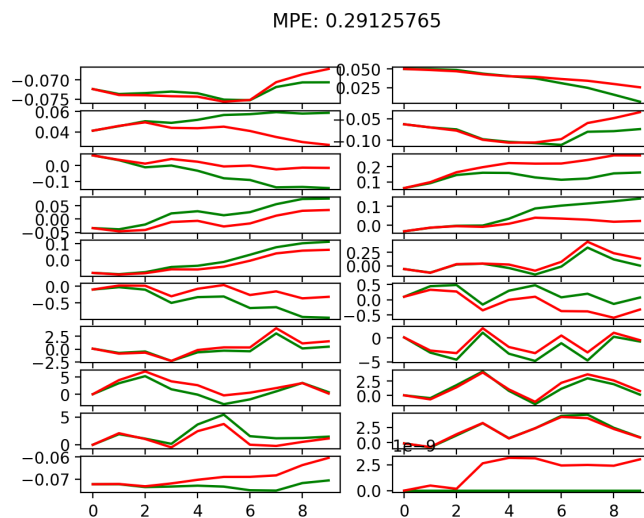Figure 1: 500 training steps per iteration, 1 x 32 MLP.

Plot

MPE: 0.29125765

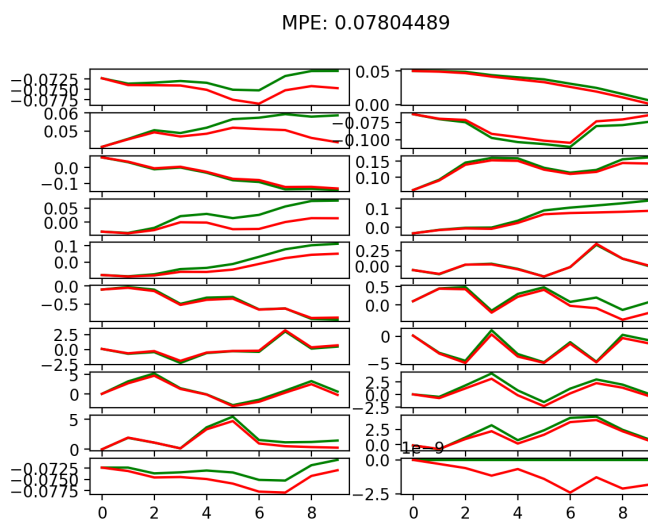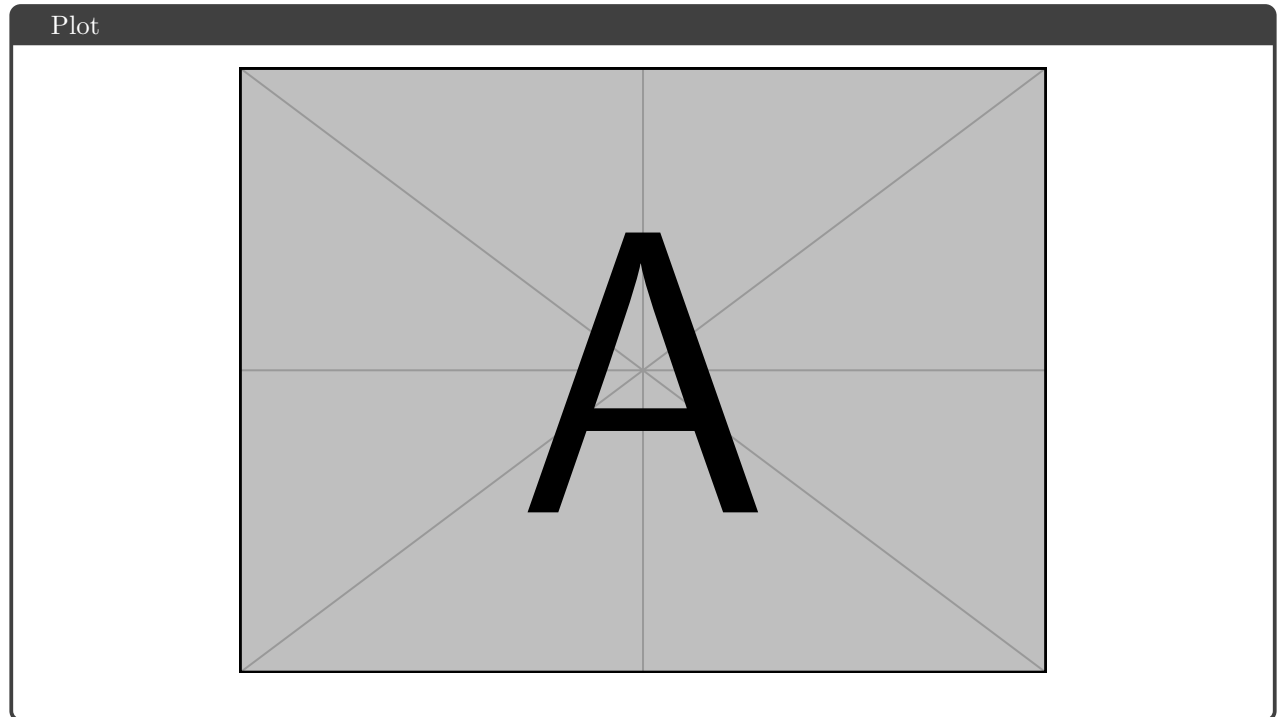Figure 2: 5 training steps per iteration, 2 x 250 MLP.
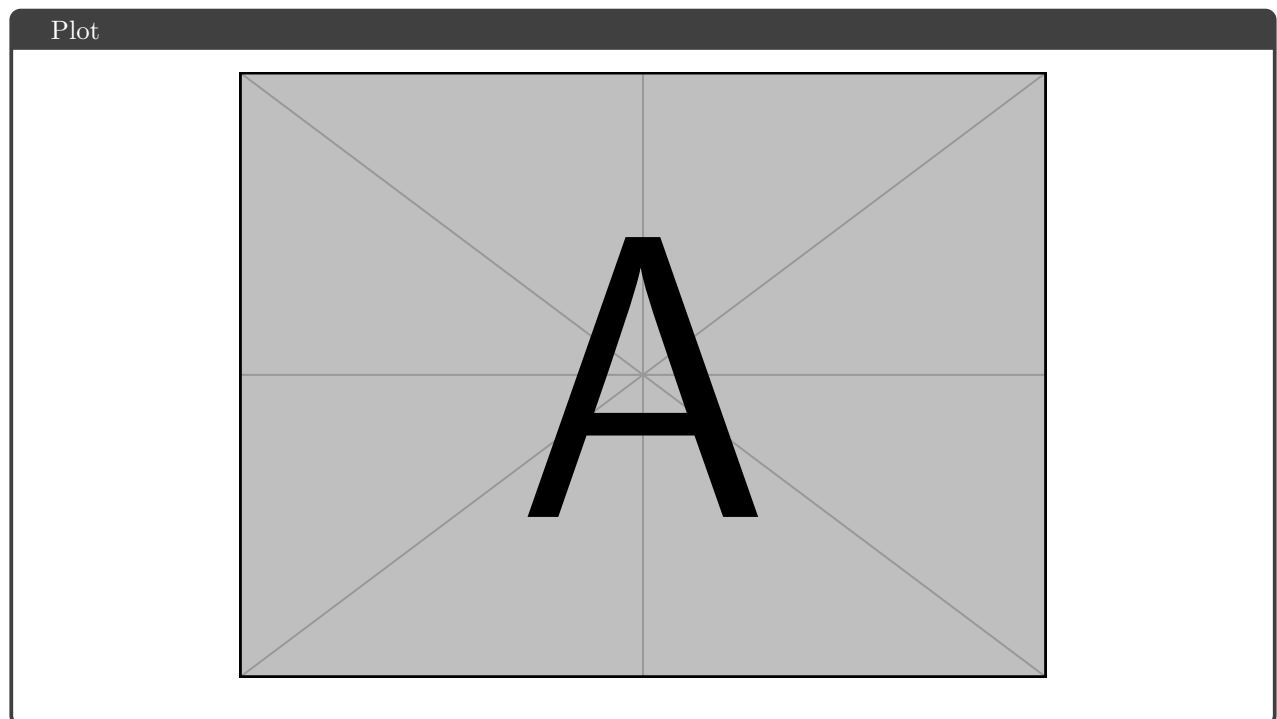
Plot

MPE: 0.07804489

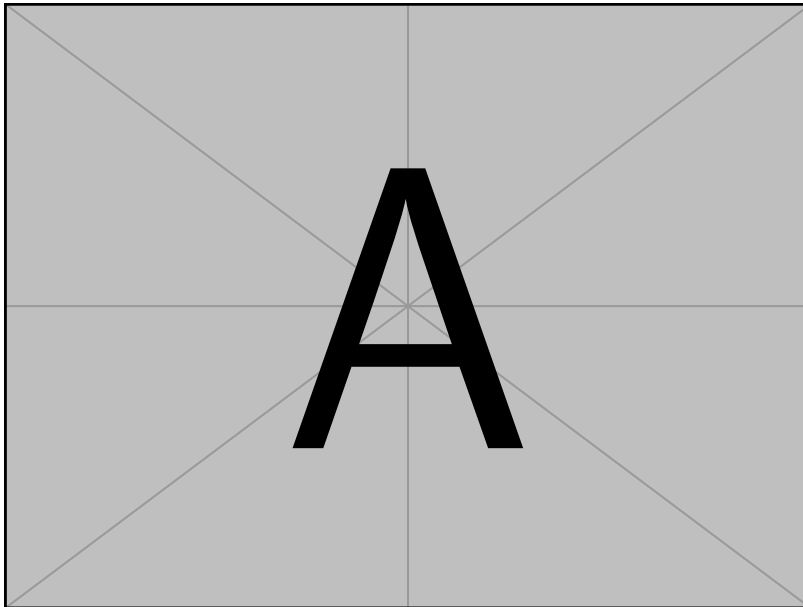Figure 3: 500 training steps per iteration, 2 x 250 MLP.
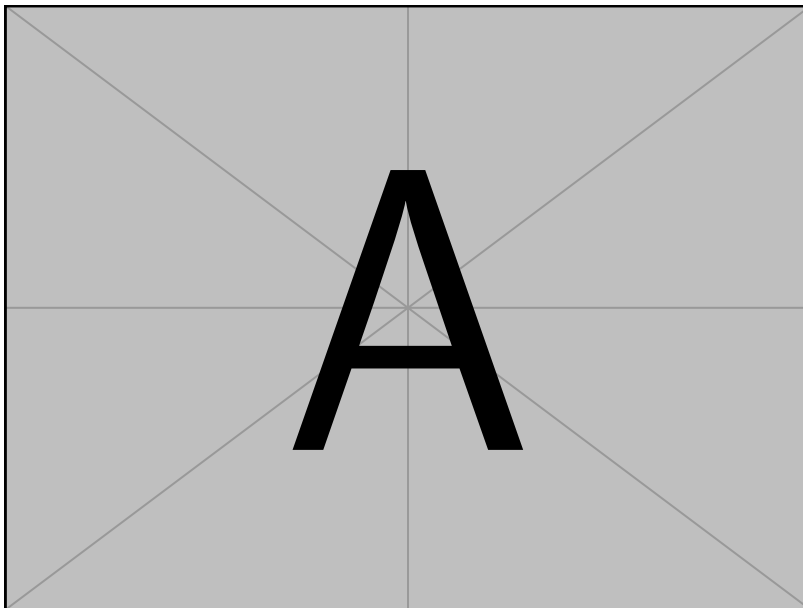
2 Problem 2: Action Selection
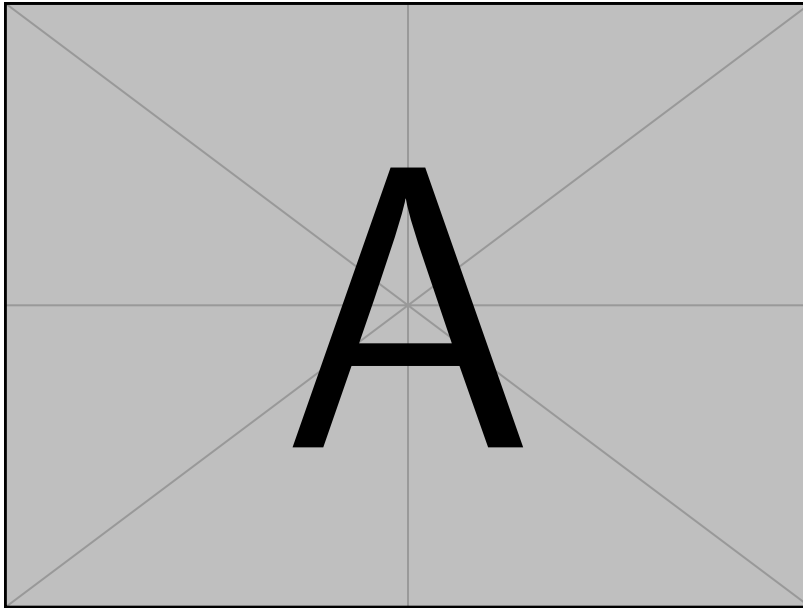

3 Problem 3: Iterative Model Training

Plot

Plot

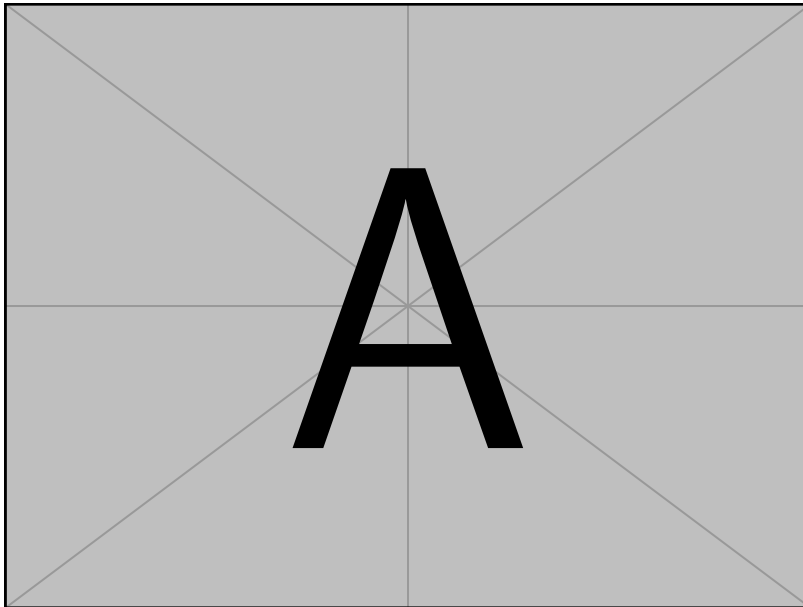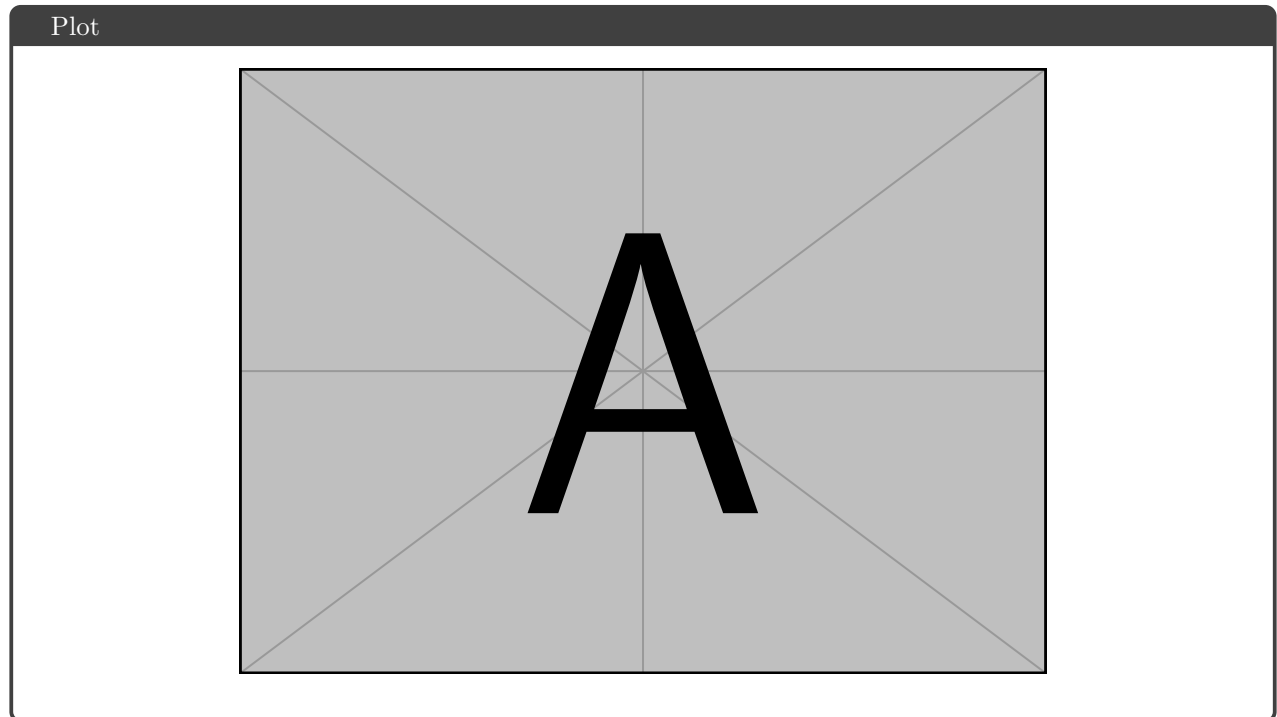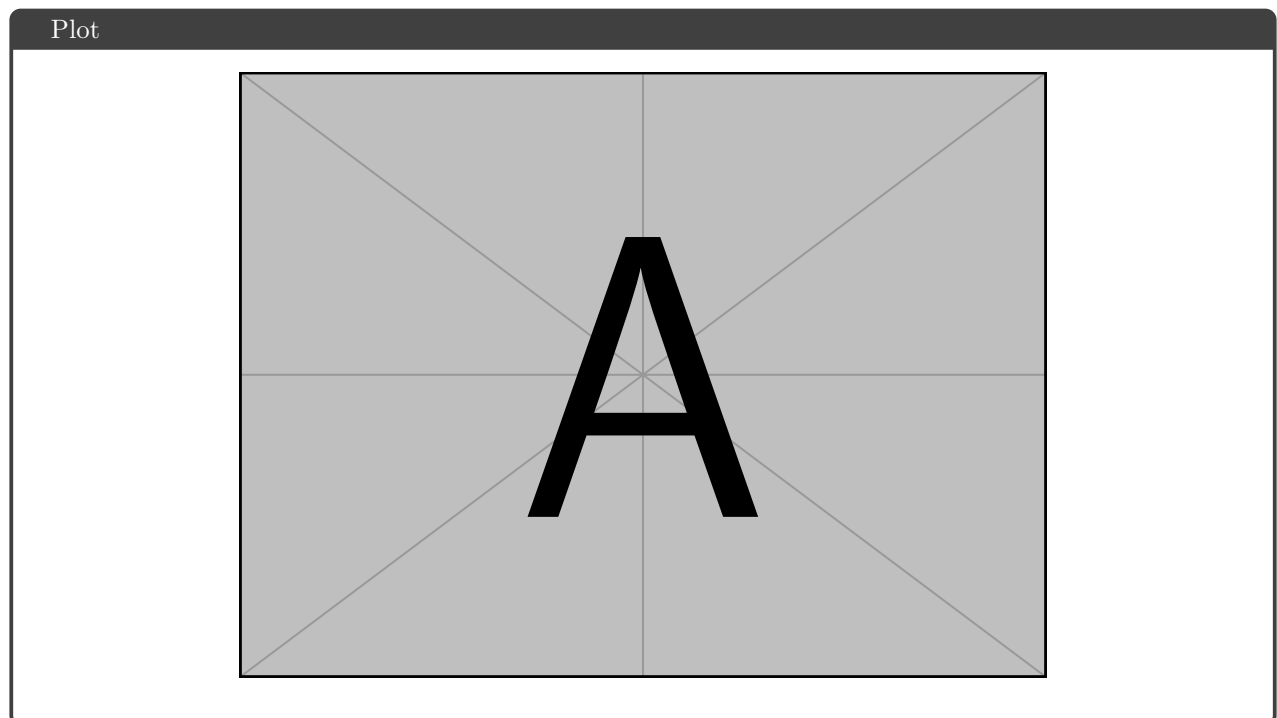# 4 Problem 4: Hyper-parameter Comparison

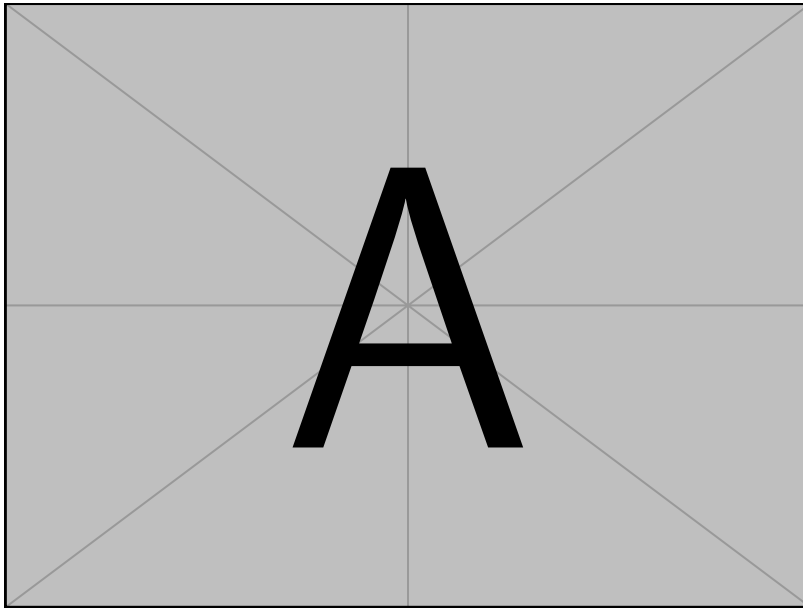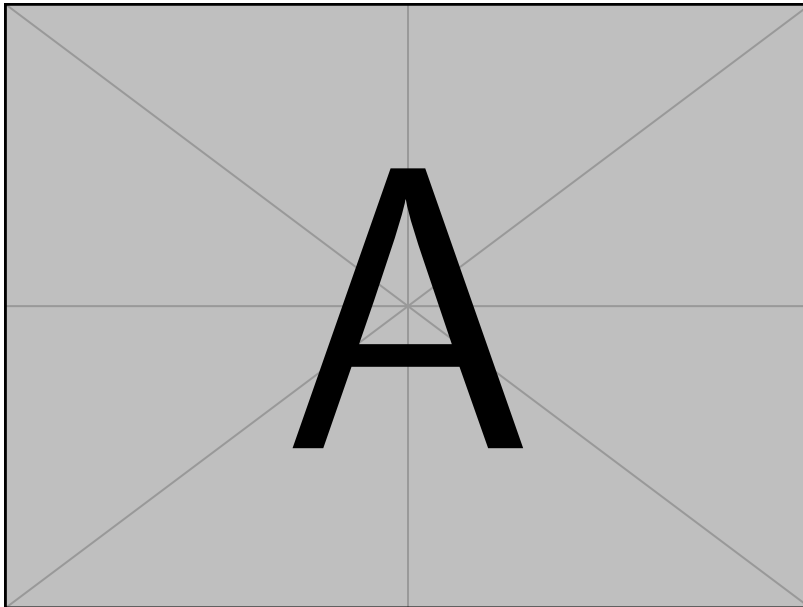# 5 Problem 5: Hyper-parameter Comparison (Bonus)
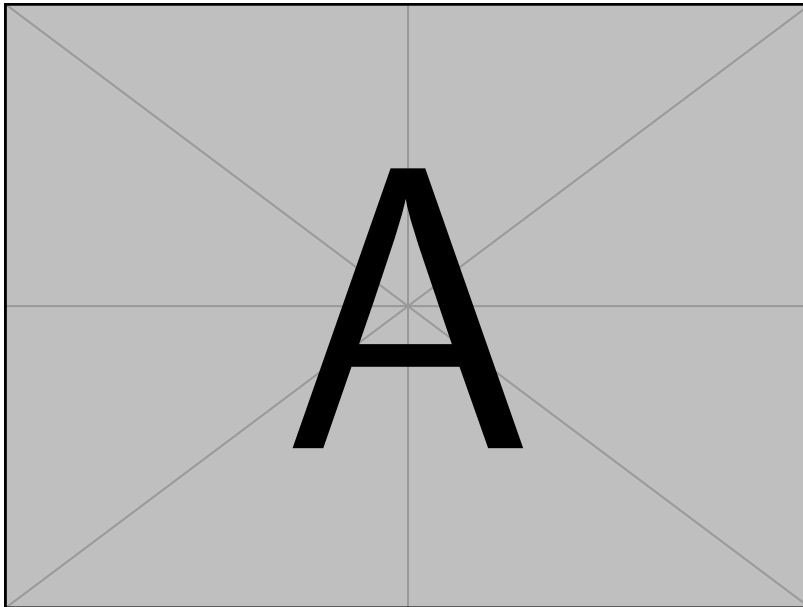
6 Problem 6: Exploration (Bonus)

Plot

Plot