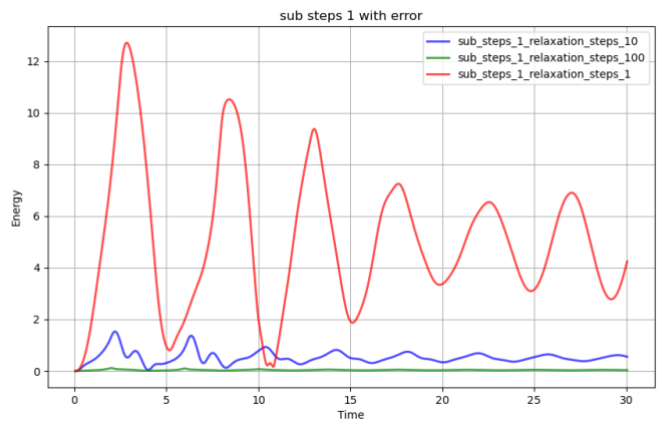
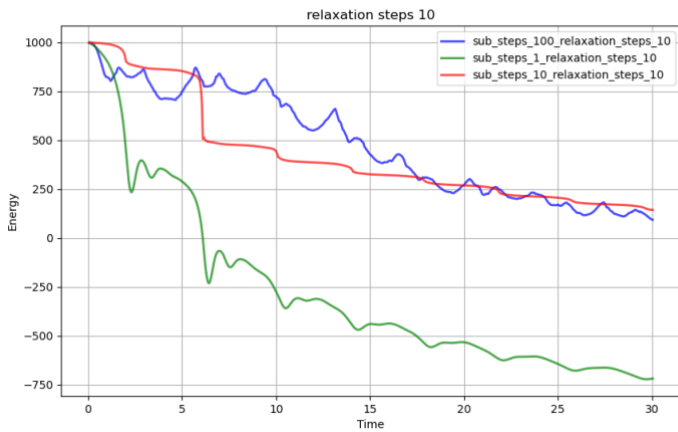
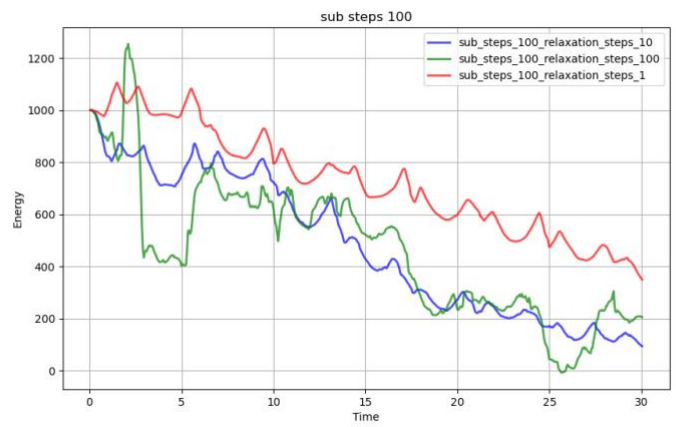
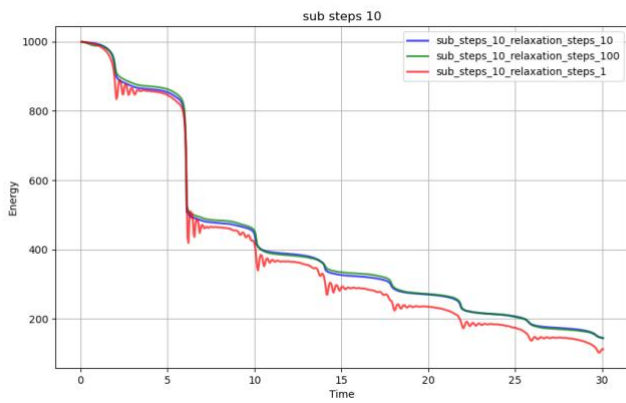
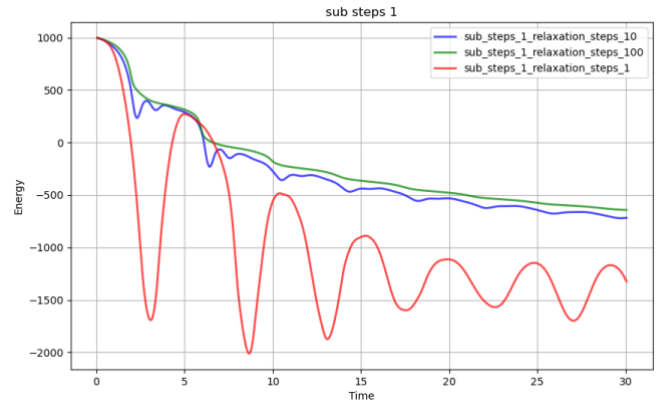
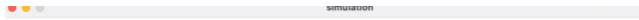


# HW2 Report

## Haoyi Shi



- A description of the trends observed across the various experiments

According to these experiment plots, sub-steps could cause more effect to the result than relaxation-steps. For plots 1-3, we keep sub-steps same and comparing relaxation-steps with 1, 10, 100, the results showing there will be larger inconsistent of energy when the sub-steps is 1. For plot 4, we set the relaxation-steps same, and different sub-steps do cause different energy.

What's more, according to plot 5 there will be large length error when sub steps is 1 and relaxation-steps is 1 either. However, larger relaxation-steps with small sub-steps value can overcome length error problem.

- An analysis of the combination of parameters that yielded the best results.

In my opinion, relaxation-steps 100 and sub-steps 10 will yield the best result. Because there will be noisy if sub-steps too large. Also, larger relaxation-steps will get smaller length error.