

Student Name: Cancan Hua  
USC ID: 4612363893

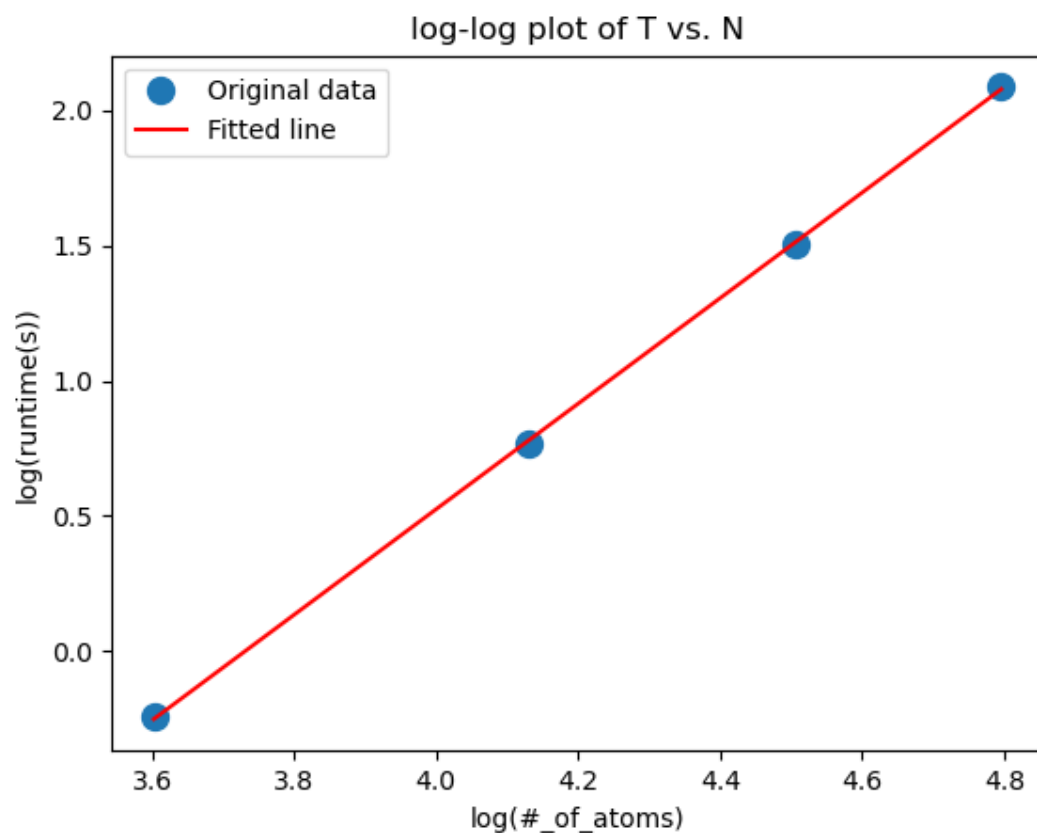
Hi, I haven't registered yet, but I saw this course was opened recently. Therefore, I still want to register for this course. I did this homework #1 in case I can register for this course.

### 1. Measuring Computational Complexity

Here is the log-log plot of T vs. N:

My fitted value of  $\alpha$  is 1.9505968

$\beta$  is -7.276732



### 2. Theoretical Flops/s Performance

The theoretical performance =  $8 \times 2.3 \times (1 + 1) \times 4 = 147.2$  Gflop/s

### 3. (Optional)

Execution time (s) =  $8.030100 \times 10^{-2}$

Number of FP operations =  $1.609487 \times 10^8$

MFlops rate =  $2.004318 \times 10^3$