

Homework1: Matrix multiplication

Review / Compile / Run the matrix multiply example code:

Link to mm.c

- Analyze the speedup and efficiency of the parallelized code.
- Vary the size of your matrices from 250, 500, 750, 1000, and 2000 and measure the runtime with one thread.
- For each matrix size, change the number of threads from 2,4,8., and plot the speedup versus the number of threads. Compute the efficiency.
- Explain whether or not the scaling behavior is as expected.

Homework2: Matrix multiplication

- Use STATIC schedule and set the loop iteration chunk size to various sizes when changing the size of your matrix. Analyze the speedup and efficiency.
- Use DYNAMIC schedule and set the loop iteration chunk size to various sizes when changing the size of your matrix. Analyze the speedup and efficiency.

Homework: Parallelize the Jacobi Method

Link to `jacobi.c`

- Analyze the speedup and efficiency of the parallelized code.
- Vary the size of your **A** matrix and measure the runtime with one thread.
- For each matrix size, change the number of threads from 2,4,8, ... and plot the speedup versus the number of threads. Compute the efficiency.
- Explain whether or not the scaling behavior is as expected.