



Basics of Parallel Computing
2024S
Assignment 2

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2 Person Group 13

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1 Exercise 1

1.1 What do `a` and `t` count?

1.2 Values for all elements in `a` and `t`

2 Exercise 2

2.1 Optimal Schedule

2.2 Schedule `static,3`

2.3 Schedule `dynamic,2`

3 Exercise 3

3.1 Fix the problems with this OpenMP code

4 Exercise 4

4.1 What is the output of the three different versions?

4.2 How often is the function `omp_tasks` called?

5 Exercise 5

5.1 Parallelize the pixel computation

5.2 Running time analysis

5.3 Influence of schedule parameter

6 Exercise 6

6.1 Parallelize the filter computation

6.2 Strong scaling analysis

6.3 Weak scaling analysis

7 Exercise 7

7.1 Convert OpenMP code to CUDA

7.2 Running time analysis

7.3 Impact of block size

7.4 Running time: CPU vs GPU code