

# Programmazione di Sistemi ~~Embedded e~~ Multicore

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# Exercises

1. Pull the Github repository we are using for the course, and solve the exercise described in the README.md file in the lec13 folder.

# Exercises

1. Solve Exercies 1 of PMC8\_Exercises.pptx, but by using Pthreads instead of MPI
2. Solve Exercies 1 of PMC8\_Exercises.pptx, but by using OpenMP instead of MPI
3. Solve Exercies 1 of PMC8\_Exercises.pptx, but using both Pthreads (or OpenMP) **and** MPI. I.e., partition first the matrices across the processes using MPI, and then have each process further partitioning the matrix between threads using Pthreads (or OpenMP). Now, suppose that your computer has 4 cores, analyze the runtime when using 1 MPI process with 4 threads, 2 MPI processes (each with 2 threads), 4 MPI processes (each with one thread).
4. Solve Exercies 3 and 4 of PMC8\_Exercises.pptx, but by using Pthreads instead of MPI
5. Solve Exercies 3 and 4 of PMC8\_Exercises.pptx, but by using OpenMP instead of MPI