

Programação Paralela / Programação Avançada

2022/2023 1º semestre

Exercises #8 30-11-2022

1. Consult the examples in `cap9-examples.zip` and parallelize the code for the ranksort algorithm as given in program `ranksort4.py`, using numpy arrays and the corresponding collective message methods of `mpi4py`.

You can find a description with examples for these methods at

https://rabernat.github.io/research_computing/parallel-programming-with-mpi-for-python.html

For an introduction into the *NumPy* package, a good starting point is the tutorial at

<https://numpy.org/devdocs/user/quickstart.html>.

Correct the code in order to treat correctly duplicates that might appear in the list of numbers to be sorted.

Submit the code of your program at <https://trixi.coimbra.lip.pt/cap> until the beginning of the next lectures.