Parallel computing using OpenMP and MPI

Paolo Joseph Baioni

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Examples

The directory `01-openmp` contains shared memory parallel examples that make use of `OpenMP`.

The directory `02-mpi` contains distributed memory parallel examples that make use of `MPI`.

We'll see together, starting from scratch:

1. introduction to OpenMP
2. blocking and non-blocking MPI P2P
3. MPI collectives + OpenMP

References

- Pacheco-Malensek book: https://doi.org/10.1016/C2015-0-01650-1
- Some repos:
  - `https://github.com/hsaunders1904/Parallel-Examples`
  - `https://github.com/ofloveandhate/adv_sci_comp_spring2017`
  - `https://github.com/kcherenkov/Parallel-Programming-Labs`
- the docs:
  - OpenMP references: https://www.openmp.org/resources/refguides/
  - Open MPI doc: https://docs.open-mpi.org/en/main/man-openmpi/man3/