

Parallel computing using OpenMP and MPI

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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/>