

# Introduction to high-performance computing (HPC) and Parallel Programming

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**Abstract.** We will present a thorough introduction to MPI (Message Passing Interface), the most popular parallel programming paradigm. This will include MPI basics, collective communication and load balancing. MPI will be illustrated with fully worked-out code examples on an actual parallel cluster. A tutorial introduction to Linux tools (bash shell, sed, awk) will be provided, if needed, depending on the audience.