

5-Day-Course — *Beginners* — 1st day (Monday)

Message Passing Interface (MPI-1, part 1)

- 8:30 **Registration**
- 9:00 **Introduction** [1] (talk)
- 9:10 **Parallel Architectures and Programming Models** [2] (talk)
- 10:10 **Coffee**
- 10:25 **MPI-1 – Introduction to the Message Passing Interface** [3+3a] (talk)
- 10:25 **Chap. 1 MPI Overview** (talk)
- 10:45 **Chap. 2 MPI Process model** (talk+practical)
- 12:00 **Lunch**
- 13:00 **Chap. 3 Messages and Point-to-Point Communication** (talk+practical)
- 14:15 **Coffee**
- 14:30 **Chap. 4 Non-Blocking Communication** (talk+practical)
- 15:45 **Coffee**
- 16:00 **Chap. 5 Derived Datatypes** (talk+practical)
- 17:30 **End**



Introduction Rolf Rabenseifner
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5-Day-Course — *Beginners* — 2nd day (Tuesday)

Message Passing Interface (MPI-1, part 2, and MPI-2 for beginners)

- 8:30 **Access to the federal high-performance computing-centers** [9] (talk)
- 9:00 **Chap. 6 Virtual Topologies** [3, continued] (talk+practical)
- 10:10 **Coffee**
- 10:25 **Chap. 7 Collective Communication** (talk+practical)
- 11:00 **Coffee**
- 11:15 **Chap. 8 Other MPI-1 features** (talk)
- 11:40 **Heat conduction program, a parallelization example with MPI** [6] (talk)
- 12:00 **Lunch**
- 13:00 **Domain decomposition of structured and unstructured grids** [31] (talk)
- 14:00 **Coffee**
- 14:15 **Load balancing** [32+32a] (talk) German: English:
- 14:45 **MPI-2 overview** [10] (talk)
- 15:15 **Coffee**
- 15:30 **MPI-2 one-sided Communication** [12+12a] (talk+practical)
- 16:45 **Parallel debugging** [5] (talk+practical)
- 17:30 **End**



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