

Russian-German School

On Parallel Computing and High Performance Computer Systems

Week 1, Beginners

2008, Novosibirsk, Akademgorodok, Russia

Monday, 25.08.2008

9.00 – 9.30	Registration
9.30 – 10.00	Opening
10.00 – 11.30	Introduction to PC-Cluster Hardware
11.30 – 12.00	Coffee Break
12.00 – 13.00	Parallel Programming Models
13.00 – 14.30	Lunch
14.30 – 16.00	Introduction to MPI (I)
16.00 – 16.30	Coffee Break
16.30 – 17.30	Practical

Tuesday, 26.08.2008

9.30 – 11.00	Introduction to MPI (II)
11.00 – 11.30	Coffee Break
11.30 – 13.00	Practical
13.00 – 14.30	Lunch
14.30 – 16.00	Introduction to MPI (III)
16.00 – 16.30	Coffee Break
16.30 – 17.30	Practical

Wednesday, 27.08.2008

9.30 – 11.00	Introduction to Dune (I)
11.00 – 11.30	Coffee Break
11.30 – 13.00	Practical
13.00 – 14.30	Lunch
14.30 – 16.00	Introduction to Dune (II)
16.00 – 16.30	Coffee Break
16.30 – 17.30	Practical

Thursday, 28.08.2008

9.30 – 11.00	Introduction to OpenMP
11.00 – 11.30	Coffee Break
11.30 – 13.00	Practical
13.00 – 14.30	Lunch
14.30 – 16.00	Verifying an OpenMP parallelization with the Intel Thread Checker
16.00 – 16.30	Coffee Break
16.30 – 17.30	Performance Tuning and OpenMP

Friday, 29.08.2008

9.30 – 11.00	Introduction to Dune (III)
11.00 – 11.30	Coffee Break
11.30 – 13.00	Practical
13.00 – 14.30	Lunch
14.30 – 15.30	Introduction to Dune (IV)
15.30 – 16.00	Coffee Break
16.30 – 18.00	Practical

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Week 2, Advanced

2008, Novosibirsk, Akademgorodok, Russia

Monday, 1.09.2008

9.00 – 9.30	Registration
9.30 – 10.00	Opening
10.00 – 11.30	Supercomputer Technology: contemporary state and prospects
11.30 – 12.00	Coffee Break
12.00 – 13.00	Grid Technologies: an Overview
13.00 – 14.30	Lunch
14.30 – 16.00	MPI and OpenMP: current versions and recent developments
16.00 – 16.30	Coffee Break
16.30 – 17.30	Practical: Preparation of user Certificates

Tuesday, 2.09.2008

9.30 – 10.00	MPI-2 Overview
10.00 – 11.00	MPI-2 One-sided Communication
11.00 – 11.30	Coffee Break
11.30 – 13.00	MPI-2 Parallel File I/O
13.00 – 14.30	Lunch
14.30 – 16.00	Single Processor Performance Optimization (Küster, Video Conference)
16.00 – 16.30	Coffee Break
16.30 – 17.30	Practical

Wednesday, 3.09.2008

9.30 – 11.00	Debugging and Performance analysis
11.00 – 11.30	Coffee Break
11.30 – 13.00	Practical
13.00 – 14.30	Lunch
14.30 – 16.00	Introduction to Unicore
16.00 – 16.30	Coffee Break
16.30 – 17.30	Practical (Unicore)

Thursday, 4.09.2008

9.30 – 11.00	Parallelization of Implicit and Explicit iterative solvers
11.00 – 11.30	Coffee Break
11.30 – 13.00	Domain Decomposition Techniques
13.00 – 14.30	Lunch
14.30 – 16.00	Introduction to the Globus Toolkit
16.00 – 16.30	Coffee Break
16.30 – 17.30	Practical (GTK4)

Friday, 5.09.2008

9.30 – 10.00	Grid usage: pitfalls and hints
10.00 – 10.30	Coffee break
10.30 – 12.00	Practical (Globus Contd)
12.00 – 12.30	Workshop Closing