



Parallel Programming for Computational Engineering & Science

HPC Seminar

March 14-18, 2016

IT Center RWTH Aachen University



	<i>Shared Memory Programming with OpenMP – Day I</i>	<i>Shared Memory Programming with OpenMP– Day II</i>	<i>Message Passing with MPI – Day I</i>	<i>Message Passing with MPI – Day II</i>	<i>GPGPU Programming with OpenACC</i>
	<i>Mo, March 14</i>	<i>Tu, March 15</i>	<i>We, March 16</i>	<i>Th, March 17</i>	<i>Fr, March 18</i>
9:00 - 10:30		Getting OpenMP up to Speed <i>60 min, R. v. d. Pas, Oracle</i> DTrace - Why It Can Be Good For You <i>30 min, T. Nau, Ulm University</i>	MPI: Part I <i>H. Iliev, RWTH</i>	MPI: Part III <i>H. Iliev, RWTH</i>	GPU Introduction, OpenACC I <i>Presentation + Lab</i> <i>S. Wienke, RWTH</i>
10:30 - 11:00	Welcome and Introduction <i>15 min.</i>	<i>coffee break</i>	<i>coffee break</i>	<i>coffee break</i>	<i>coffee break</i>
11:00 - 12:30	Introduction to Parallel Programming with OpenMP: Part I <i>C. Terboven, RWTH</i> <i>Lab: OpenMP Part I</i>	Troubleshoot complex codes with TotalView, now with a new UI <i>D. Stewart, RogueWave</i>	<i>Lab: MPI Part I</i>	Vampir <i>30 min, H. Iliev, RWTH</i> TotalView for MPI programs <i>15 min, T. Cramer, RWTH</i> MUST and Thread Sanitizer <i>45 min, J. Protze, RWTH</i>	OpenACC II <i>Presentation + Lab</i> <i>S. Wienke, RWTH</i>
12:30 - 14:00	<i>lunch break</i>	<i>lunch break</i>	<i>lunch break</i>	<i>lunch break</i>	<i>lunch break</i>
14:00 - 15:30	Introduction to Parallel Programming with OpenMP: Part II <i>C. Terboven, RWTH</i> <i>Lab: OpenMP Part II</i>	WT: Intel Inspector and Intel VTune Amplifier <i>45 min, T. Cramer, RWTH</i> <i>Lab: OpenMP Part IV</i>	MPI: Part II <i>H. Iliev, RWTH</i>	WT: Allinea software - DDT, Performance Reports <i>P. Wohlschlegel, Allinea</i>	OpenACC III <i>Presentation + Lab</i> <i>S. Wienke, RWTH</i> High Performance and Productivity with Unified Memory and OpenACC: A Case Study <i>30 min, Jiri Kraus, NVIDIA</i>
15:30 - 16:00	<i>coffee break</i>	<i>coffee break</i>	<i>coffee break</i>	<i>coffee break</i>	<i>The End</i>
16:00 - 17:30	Advanced OpenMP Programming <i>C. Terboven, RWTH</i> <i>Lab: OpenMP Part III</i>	WT: One(single)kernel for CPU, GPU and Xeon Phi <i>45 min, Bernd Dammann, DTU</i> <i>Computing Center, Technical University of Denmark</i> <i>Lab: OpenMP Part V</i>	<i>Lab: MPI Part II</i>	WT: Performance Analysis with LIKWID <i>45 min, T. Röhl, Uni Erlangen</i> <i>Lab: MPI or OpenMP or Hands-On Session "Bring Your Own Code"</i>	
19:00 –		Social event in Vivere <i>Schmiedstraße 5, Aachen</i>			