

Austrian HPC Meeting 2016 – AHPC16

Austrian HPC Meeting 2016 – AHPC16 | February 22–24, 2016 | Grundlsee (Austria)

Monday (February 22, 2016)		Tuesday (February 23, 2016)		Wednesday (February 24, 2016)			
		07:30	breakfast	07:30	breakfast		
		09:00	Alexander Ostermann	09:00	Marián Vajteršic		
		09:00	Ulrich Rüde	KEYNOTE TALK: Lattice Boltzmann methods on the way to exascale	09:00	Ivona Brandic	KEYNOTE TALK: Challenges in geo-temporal control of multi-clouds
		09:45	Christian Jordan	Parallel efficiency of OpenFOAM on VSC-3	09:45	Dominik Kaaser	Discrete load balancing in heterogeneous networks with a focus on second-order diffusion
		10:00	Federico Municchi	Highly efficient spatial filtering of parallel data using CPPPO: a compilation of fluid/particle post processing routines	10:00	Sascha Hunold	The art of benchmarking MPI libraries
		10:15	Lukas Einkemmer	Evaluation of the Intel Xeon Phi and NVIDIA K80 as accelerators for two-dimensional panel codes	10:15	Markus Flatz	An approach to parallel nonnegative tensor factorization for HPC applications
		10:30		arrival / registration / coffee	10:30		coffee
		10:30	Martina Prugger	VSC School Project: Evaluation of the Partitioned Global Address Space (PGAS) model for an inviscid Euler solver	10:30		
		10:45	Karl Furlinger	DASH: data structures and algorithms with support for hierarchical locality	11:00	Raimund Podlucky	
		11:00		coffee	11:00	Josef Redinger	Functional oxide surfaces and interfaces: DFT studies
11:00	welcome (Störi / Vajteršic / Ostermann / Steponat / Dellago)			11:15	Felix Plasser	VSC School Project: Algorithmic challenges in photodynamics simulations	
11:15	Christoph Dellago		11:30	Josef Weinbub			
11:15	Gernot Plank	KEYNOTE TALK: Computing the heart beat – numerical challenges in solving the cardiac multiphysics problem with biophysically detailed anatomically accurate models of a human heart	11:30	Andreas Morhammer	VSC School Project: Optimized sparse matrix-matrix multiplication for multi-core CPUs, GPUs, and MICs		
11:15			11:45	Karl Rupp	A computational scientist's perspective on current and future hardware architectures		
12:00	Gundolf Haase	Heart simulation on GPU and CPU clusters	12:00	Mathias Wiesenberger	FELTOR: a hybrid MPI + OpenMP / GPU code for plasma turbulence simulations		
12:15	Daniel Ganellari	Eikonal equation solver on various hardware	12:15	Christian Rab	Computational astrophysics: planets, stars and galaxies		
12:30			12:30	Francesca Nerattini	VSC School Project: Introduction to the Vienna Protein Simulator: performance and applications		
12:45		lunch	12:45	Claudia Stoosits	Molecular dynamics simulation of GDS-MHC interaction		
12:45			13:00		lunch		
14:00	Ernst Haunschmid		14:00	Siegfried Höfinger			
14:00	Isabella Weger	KEYNOTE TALK: Let's talk about the weather – the role of supercomputing in earth system modeling	14:15	Peter Blaha			
14:45	Andras Csaki	Parametrization of atmospheric mixing processes in COSMO-CLM regional climate model	14:15	Raimund Podlucky	KEYNOTE TALK: From Schrödinger's equation to properties of solid matter		
15:00	Christian Briese	Challenges in the analysis of big earth observation data	14:45	Lam Tung Nguyen	IQ-TREE HPC: parallelized software for phylogenetic inference		
15:15	Senmao Cao	Satellite big data processing on the Vienna Scientific Cluster for surface soil moisture estimation	15:00	Carolin Kosiol	Ancestral and recent population genomics		
15:30		coffee	15:15		summary / farewell (Ernst Haunschmid)		
15:30			15:30	Oliver T. Hofmann	Computational material studies on hybrid interfaces: from structure search to property prediction		
16:00	Dieter Kvasnicka		15:45	Toma Susi	Core-level calculations with hundreds of atoms using GPAW		
16:00	Thomas Ponweiser → Tue 12:45	PRACE – Partnership for advanced computing in Europe	16:00	Patrik Gunacker	VSC School Project: Diagrammatic quantum Monte Carlo for strongly correlated electron systems		
16:15	Sabine Kreidl Alexander Ostermann	HPC at the University of Innsbruck	16:15		coffee		
16:30	Herbert Störi	The Vienna Scientific Cluster	16:45	Udo Linauer			
16:45	Peter Marksteiner	The VSC-3 technology stack	16:45	Alois Schlögl	High performance computing at IST Austria: modelling the human hippocampus		
17:00	Markus Stöhr	VSC-3 status and best practices	17:00	Samuel Senoner	Responding to HPC needs in Scientific Network South Tyrol: HPC for computational linguistics purposes		
17:15	Siegfried Höfinger Irene Reichl	GPU and MIC computing on VSC-3 Remote visualization on VSC-3	17:15	Dietrich Liko	Evolving computing for particle physics in Austria		
17:30	Ernst Haunschmid	Architectures for future HPC systems	17:30	Michael Aspertsberger	Sentinel big data storage design and benchmarking results		
18:00		discussion	18:00	Michael Alexander	TUTORIAL: Parallel file I/O: using and profiling HPC storage		
19:00		dinner	19:00		discussion		
19:00		dinner	19:30		dinner		

