

Program 2022



Keynote Speakers

Matteo Ambrosetti (Northvolt):

Multiscale Methodologies for Electrolyte Characterization

Evangelos Floros (EuroHPC JU):

EuroHPC Exascale and Future

Albert Frisch (AQT / Universität Innsbruck):

HPC-Integration of an Ion-Trap Quantum Computer

Richard Gerber (NERSC):

Perlmutter and HPC in the U.S. Department of Energy Office of Science

Jean Pierre Panziera (Atos):

Future HPC Technologies

Lubomir Riha (IT4Innovations, VSB-Technical University of Ostrava):

Selected Cases of GPU Accelerated Parallel Applications at IT4Innovations

Tuesday, May 31, 2022

Start		Title
07:30	BREAKFAST	
09:00	Claudia Blaas-Schenner	<i>WELCOME to the EuroHPC Access Workshop</i>
09:05	Andrej Filipčič	<i>Overview of (already existing) EuroHPC systems</i>
09:20	Alessandro Marani	<i>LEONARDO – current status and what it is to us (the consortium)</i>
09:30	K. Meštrović & K. Bhuyan	<i>Calls for application and review process</i>
10:00	Philipp Gschwandtner	<i>Tips and tricks from the user perspective with PRACE applications</i>
10:30	COFFEE	
11:00	T. Kozubek & T. Prica	<i>High-level support on sites, how to choose the appropriate HPC system and call</i>
11:30	EuroHPC-Workshop	<i>Round table with officers and experts, Q&A</i>
12:00	LUNCH	
13:00	Andrej Filipčič	<i>WELCOME to ASHPC22</i>
13:15	Evangelos Floros	<i>EuroHPC Exascale and Future (KEYNOTE TALK)</i>
14:00	Bernhard Semlitsch	<i>Performance Modelling of Ship Propellers by Computational Flow Simulation</i>
14:20	Felix Reuß	<i>Crunching Petabytes with the VSC: The processing and analysis of global satellite imagery</i>
14:40	Soner Steiner	<i>Collaboration with the SME TAILSIT during the SHAPE project PARTS: Electromagnetic simulations with the finite/boundary element method for large systems using HPC</i>
15:00	COFFEE	
15:30	Harald Höller-Lugmayr	<i>From silicon to silicon</i>
15:50	Peter Kandolf	<i>Austrian DataLAB and Services</i>
16:10	Alois Schlögl	<i>Where is the sweet spot? A procurement story of general purpose compute nodes</i>
16:30	BREAK	
16:45	Dejan Valh	<i>Vega EuroHPC, 1st year in service</i>
17:05	Siegfried Höfner, Jan Zabloudil	<i>Next generation Vienna Scientific Cluster (VSC-5)</i>
17:25	Markus Hickel	<i>VSC Storage, Present and Future</i>
17:40	Irene Reichl, Simeon Harrison	<i>Current Developments on the Vienna Scientific Cluster (VSC)</i>
18:00	Alexander Ostermann (moderator)	<i>Plenary discussion with users about their needs and wishes for future HPC systems</i>
19:00	DINNER	

Program 2022



Wednesday, June 1, 2022

Start	Title	
07:30	BREAKFAST	
09:00	Lubomir Riha	<i>Selected Cases of GPU Accelerated Parallel Applications at IT4Innovations (KEYNOTE TALK)</i>
09:40	Uroš Lotrič	<i>Energy-Efficient Computing with Approximate Tensor Core Units</i>
10:00	Josef Weinbub	<i>Shared-Memory Fast Marching Method for Re-Distancing on Hierarchical Meshes</i>
10:20	Ioannis Vardas	<i>mpisee: MPI Profiling for Communication and Communicator Structure</i>
10:40	Sascha Hunold	<i>MPI Performance Tools under the Microscope: A Thorough Overhead Analysis</i>
11:00	COFFEE	
11:30	Sarah Stryeck	<i>NCC Austria – A National Competence Center for High-performance computing, High-Performance Data Analytics and Artificial Intelligence</i>
11:50	Pavel Tomšič	<i>Slovenian National Competence Centre HPC</i>
12:10	Ferenc Szani	<i>Vision of a HPC NCC today</i>
12:30	LUNCH	
14:00	Albert Frisch	<i>HPC-Integration of an Ion-Trap Quantum Computer (KEYNOTE TALK)</i>
14:45	Markus Wallerberger	<i>Romeo and Julia: HPC, ranking, and the many-electron problem</i>
15:05	Philipp Gschwandtner	<i>The Cluster Coffer: Teaching HPC on the Road</i>
15:25	COFFEE	
15:55	Richard Gerber	<i>NERSC, Perlmutter and HPC in the U.S. Department of Energy Office of Science (KEYNOTE TALK)</i>
16:40	BREAK	
16:45	POSTER LIGHTNING TALKS	
17:10	LIVE DEMO	
	Philipp Gschwandtner	<i>The Cluster Coffer</i>
17:10	POSTER SESSION	
	László Ligeti	<i>Case study: How to select the right Software mix for SMEs</i>
	Vladislav Kashansky	<i>Heterogeneous Workflows Scheduling in the Computing Continuum Systems (ONLINE)</i>
	Jakob Merljak	<i>arcControlTower for distributed HPC job management</i>
	Renáta Rusková	<i>HPC in design of devices for chiral nanotechnology (ONLINE)</i>
	Dušan Račko	<i>The free volume in PVME-water mixture as obtained from HPC simulations (ONLINE)</i>
	Shokirbek Shermukhamedov	<i>Neural network potentials for fusion material research</i>
	Eduard Vorobyov	<i>Computing the gravitational (electrostatic) potential on nested Cartesian meshes using the convolution method (ONLINE)</i>
	Stefano Elefante	<i>Benchmarking using Relion GPU workloads</i>
	Leon Deutsch	<i>Catch22 = Biomed 2022 (ONLINE)</i>
	Leon Kos	<i>Interactive Hands-on Introduction to Parallel Programming</i>
	Pavel Tomšič	<i>Erasmus+ project: Sctrain</i>
18.00	DISCUSSION	
19:00	DINNER	

Program 2022

Thursday, June 2, 2022

Start		Title
07:30	BREAKFAST	
09:00	Matteo Ambrosetti	<i>Multiscale Methodologies for Electrolyte Characterization (KEYNOTE TALK)</i>
09:45	Janez Povh	<i>High-performance electricity consumption prediction</i>
10:05	Aleš Zamuda	<i>Speeding up Vectorized Benchmarking of Optimization Algorithms</i>
10:25	COFFEE	
11:00	Dominik Gehringer	<i>Modelling-aided materials discovery at Montanuniversität Leoben</i>
11:20	Gerhard Kahl	<i>On the emergence of quasi-crystalline structures in a Wigner bilayer system</i>
11:40	Davor Sluga	<i>Development of GPU accelerated molecular software (CmDock) for efficient high-throughput virtual screening</i>
12:00	LUNCH	
13:30	Domen Verber	<i>High-Performance Computing with Relational Database Management Systems</i>
13:50	Giovanna Roda	<i>Distributed computing for everyone</i>
14:10	Jean Pierre Panziera	<i>Atos – Future HPC technologies (KEYNOTE TALK)</i>
14:55	<i>CLOSING (tentative)</i>	
15:05	COFFEE (tentative)	
15:30	<i>END OF ASHPC22 (tentative)</i>	

ASHPC22 & EuroHPC Access Workshop are organised by **EuroCC Austria – National Competence Centre for Supercomputing, Big Data and Artificial Intelligence, Austria** and **EuroCC Slovenia** in cooperation with the **Vienna Scientific Cluster (VSC), Austria**; the **Research Area Scientific Computing in Innsbruck, Austria**; the **Institute of Information Science in Maribor (IZUM), Slovenia** and the **Slovenian consortium for high-performance computing (SLING)**

Organisers:



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