ASHPC25 / Programme Tuesday, 20 May 2025

## **ASHPC25**

## **Tuesday, 20 May 2025**

#### Plenary: Block 1 (10:00 - 10:45)

time [id] title	presenter
10:00 [64] Slovenian Genomic Data Infrastructure	ČEP, Aleš
10:15 [65] DLR solver for the CME	MANGOTT, Julian
10:30 [66] Sparse matrix operations on RISC-V vector architecture	PILIPOVIĆ, Ratko

#### Plenary: Block 2 (11:15 - 12:30)

time	[id] title	presenter
11:15	[67] HPC Info - Enhanced Resource Tracking for SLURM Users and Administrators	Dr SITKIEWICZ, Sebastian
11:30	[68] Strong Scaling Days: Testing massively parallel applications on VSC	GOLDENBERG, Florian
11:45	[69] Flexible and compact high density modular data center	PANČUR, Matjaž
12:00	[70] Blurring the lines between compilation and runtime optimization in the DAPHNE open source software framework	DOKTER, Mark
12:15	[71] Unveiling the Energy Cost of Parallel Performance Portability in C++	Dr LASO, Ruben

#### Plenary: Block 3 (14:45 - 15:30)

time	[id] title	presenter
14:45	[72] High clouds	GASPARINI, Blaž
	[73] Using machine learning to distinguish km-scale climate models and observations on a regional scale	MEINDL, Maximilian
15:15	[74] Strategies for faster deep learning-based modeling of global barystatic processes	KIANI SHAHVANDI, Mostafa

ASHPC25 / Programme Wednesday, 21 May 2025

## Wednesday, 21 May 2025

#### Plenary: Block 4 (09:45 - 10:45)

time [id] title	presenter
09:45 [75] Learning equations	JUG, Matevž
10:00 [76] Optimizing Distributed Deep Learning Training by Tuning NCCL#	SALIMI BENI, Majid
10:15 [77] ncclsee: A Lightweight Profiling Tool for NCCL	VARDAS, Ioannis
10:30 [78] HPC for Hybrid Threat Resilience: Insights from the HYBRIS Project	STÖHR, Markus

### <u>Plenary: Block 5</u> (11:15 - 12:30)

time [id] title	presenter
11:15 [79] Go wrapper for CUDA	LOTRIČ, Uroš
11:30 [80] Benchmarking A40, L40, H100 GPUs with cuBLAS	ELEFANTE, Stefano
11:45 [81] Modern GPUs for DE	VERBER, Domen
12:00 [82] Benchmarking the scalability and communication of the CholeskyQR2-IM algorithm on national and European HPC resources	DAVIDOVIĆ, Davor
12:15 [85] GaMS meets Vega and Leonardo: Training Slovene LLMs	VREŠ, Domen

#### Plenary: Block 6 (14:45 - 15:30)

time [id] title	presenter
14:45 [94] QUBO and quantum annealing: applications and perspectives	KONIORCZYK, Mátyás
15:00 [95] Hybrid QUBO	POVH, Janez
15:15 [96] Bootcamp POSE	GSCHWANDTNER, Philipp

#### Plenary: Block 7 (16:00 - 16:45)

time [id] title	presenter
16:00 [87] Update on MUSICA	WIMMER, Elias
16:15 [88] How to play MUSICA	ZABLOUDIL, Jan
16:30 [89] When space runs out: A new central storage system for VSC	HICKEL, Markus

ASHPC25 / Programme Thursday, 22 May 2025

# Thursday, 22 May 2025

### Plenary: Block 8 (09:45 - 10:45)

time	[id] title	presenter
09:45	[84] Al-zyme: machine learning enhanced protein design	ZEBEC, Žiga
10:00	[98] Cell simulation: the ultimate way for developing better drugs	TOMIC, Drasko
10:15	[101] H2O adsorption at Co3O4 (111) surface from a DFT perspective	GENEST, Alexander
	[102] Open-boundary molecular dynamics of ultrasound using supramolecular water models	LAH, Maša

### Plenary: Block 9 (11:15 - 12:15)

time [id] title	presenter
11:15 [86] AI-Powered IT Service Optimization with Language Modellig	DORN, András
11:30 [99] Exploring the origin of enzyme catalysis by simulation methods	STARE, Jernej
11:45 [100] Efficient theoretically guided search for functional metallic thermoelectrics	KHMELEVSKYI, Sergii
12:00 [97] Research Software Engineers (RSE) at the VSC Research Centre	HOEFINGER, Siegfried