**ASHPC26 preliminary program (version 1 April 2026)**

**7 April 2026  Central European NCCs Workgroup Meeting – CE-NCCs-WG (for NCC / EuroCC 3 staff only)**

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|---|---|
| *14:00* | *Registration & Get Together & Coffee Break* |
| 14:30 | CE-NCCs-WG Plenary Session 1 |
| *16:00* | *Coffee Break* |
| 16:30 | CE-NCCs-WG Plenary Session 2 |
| *18:00* | *end of sessions* |
| *18:30* | *Dinner in a nearby restaurant* |

**8 April 2026  ASHPC26**

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|---|---|---|---|
| *09:00* | *Registration & Get Together* | | |
| 09:30 | Welcome by PC & OC chairs | | |
| 09:45 | Session 1 | | |
| 09:45 | KEYNOTE | Dieter Kranzlmüller | Optimizing Energy Efficiency for HPC-AI Deployment – The Path to AI Gigafactories |
| 10:30 | | Michael Iro | AI Factory Austria AI:AT – Training |
| 10:45 | | Iulia Rinea | Managed ML Inference on Shared HPC Infrastructure |
| *11:00* | *Coffee Break* | | |
| 11:30 | Session 2 | | |
| 11:30 | | Severine Habert | Optimizing and Scaling LLM Inference |
| 11:45 | | Andreas Lindner | Training deep learning models for identification of Austrian butterflies and moths on more than half a million images |
| 12:00 | | Georg Heiler | From Laptop to Supercomputer: Multimodal efficient ML Pipelines with dagster-slurm and metaxy |
| 12:15 | | Andreas Ravazzolo-Mehrle | Scaling AI Systems development from desktop to HPCs using MATLAB & Simulink |
| *12:30* | *Lunch Break* | | |
| 14:00 | Session 3 | | |
| 14:00 | KEYNOTE | Michael Bussmann | Beyond exascale – When data becomes more important than FLOPs/s |
| 14:45 | | Sylvia Ploeckinger | The multi-phase interstellar medium of COLIBRE galaxies |
| 15:00 | | James McKevitt | Simulating Magnetic Reconnection To Support Next-Generation Space Missions |
| 15:15 | | Lukas Winkler | Scaling Differentiable Simulations in Cosmology to Multiple GPUs |
| *15:30* | *Coffee Break* | | |
| 16:00 | Session 4 | | |
| 16:00 | | Jesper Karsson Träff | Circulant Graphs for Collective Communication |
| 16:15 | | Ruben Laso | To ncclsee, or Not to ncclsee: That is the Profiling Question |
| 16:30 | | Jonas Sieberer | Topology-Aware Communication |
| 16:45 | | Marko Ferme | Bridging HPC and Cloud: OpenStack-Based Infrastructure for Efficient AI Computing |
| 17:00 | | Mladen Borovič | MENTHOS-spam: High-Throughput Detection for Phishing and SMS Spam |
| 17:15 | | Zoé Lloret | ICON-Sapphire |

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| **16:00** | **@ BA 10A** | **Technical Track – System Architecture, Configuration, and Operations of HPC and AI-Optimized Supercomputers** | |
| 16:00 | @ BA 10A | Katrin Muck | ASC Cluster Admin & Infrastructure Service Modernization |
| 16:15 | @ BA 10A | Adam McCartney | The MUSICA software stack |
| 16:30 | @ BA 10A | Florian Goldenberg | Moving stuff around: Rucio & FTS |
| 16:45 | @ BA 10A | Hernan Picatto | dagster-slurm |
| 17:00 | @ BA 10A | Gent Rexha | Managed Multitenant ML Workflows on HPC |
| 17:15 | @ BA 10A | Technical Track – Discussion | |

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| *17:30* | *end of sessions* |
| 19:00 | ASHPC26 Dinner at Rathauskeller |

**9 April 2026 ASHPC26**

| Time | Location/Type | Speaker | Title |
|---|---|---|---|
| 09:00 | Session 5 | | |
| 09:00 | KEYNOTE | Latha Venkataraman | From Atoms to Current: Predicting Function in Single-Molecule Circuits |
| 09:45 | | Darin Lah & Samo Miklavc | EPICURE project – practical example |
| 10:00 | | Florian Goldenberg | RI-Scale – bringing data holdings and HPC together |
| 10:15 | | Victoria Döller | EVITA – EuroHPC Virtual Training Academy |
| 10:30 | *Coffee Break* | | |
| 11:00 | Session 6 | | |
| 11:00 | | Silvio Heinze | From City-Scale Street-View Imagery to Building-Level Urban Indicators: A Precompute Layer for GeoAI ML Models on the MUSICA HPC System} |
| 11:15 | | Davor Davidović | NCC Croatia Success Story: Setting up Photogrammetry Workflow on an HPC cluster - A Cultural Heritage Use Case |
| 11:30 | | Gregor Molan & Martin Molan | HPC-Driven Dimension-Aware Neural Architecture Search for Cryocooler Lifetime Prediction |
| 11:45 | | Jelena Joksimović | Simple is better? HPC-enabled neural architecture search for energy demand forecasting |
| 12:00 | | Max Hodapp | Automated learning of multiscale models |
| 12:15 | | Manuel Hofbauer | GraphMiningLLM |
| 11:00 | @ BA 10A | **Technical Track – System Architecture, Configuration, and Operations of HPC and AI-Optimized Supercomputers** | |
| 11:00 | @ BA 10A | Orlenys Troconis | Organizing the software stack in CINECA's clusters. Towards LISA. |
| 11:15 | @ BA 10A | Florian Atzenhofer-Baumartner | Design and Operation of a Federated GPU Cluster for Digital Humanities within DHinfra.at |
| 11:30 | @ BA 10A | Thomas Rattei | LiSC software catalog: a software installation framework for Life Sciences |
| 11:45 | @ BA 10A | Ümit Seren & Leon Schwarzäugl | Zero-Touch HPC Nodes |
| 12:00 | @ BA 10A | Sebastian Sitkiewicz | HPC Info |
| 12:15 | @ BA 10A | Technical Track – Discussion | |
| 12:30 | *Lunch Break* | | |
| 13:15 | @ BA 10A | **ASC User Meeting** | |
| 14:00 | Session 7 | | |
| 14:00 | KEYNOTE | Gerhard Hummer | Learning from molecular simulations |
| 14:45 | | Maša Lah | Open-Boundary Molecular Dynamics of Red Blood Cell Suspensions |
| 15:00 | | Thomas Haschka | HPC Acceleration of Phylogenetics |
| 15:15 | | Anže Hubman | Langevin models |
| 15:30 | *Coffee Break* | | |
| 16:00 | Session 8 | | |
| 16:00 | | Relindis Rott | General Matrix-Matrix Multiplication Applied to the Lattice Boltzmann Method |
| 16:15 | | Lea Enzenberger | GPU algorithm for efficient runtime detection of coalescence and breakup events in phase-field multiphase flows |
| 16:30 | | Amina Tahreen | Numerical analysis of electrocoagulation using computational fluid dynamics for sustainable water treatment |
| 16:45 | | Antonija Rajic | HPC Digital Twin |
| 17:00 | | Muhammad Mizan | High-Fidelity Flow Simulations empowered by HPC |
| 16:00 | @ BA 10A | Technical Track – Discussion (optional) | |
| 17:15 | **Poster Lightning Talks** | | |
| 17:35 | **Poster Session** | | |
| | (see next page) | | |

**17:15**      **Poster Lightning Talks**

**17:35**      **Poster Session**

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|---|---|---|
| Poster 1 | Andreas Lindner | EuroCC Austria: The Austrian Competence Centre for Supercomputing |
| Poster 2 | Jurica Špoljar | Integration of Advanced Computing service and e-learning platform Merlin |
| Poster 3 | Teo Prica & Samo Lorenčič | HPC Vega: Supporting Services |
| Poster 4 | Žiga Zebec | EPICURE: Unlocking European-level HPC Support |
| Poster 5 | Tina Marc | FFplus: Bridging SMEs with State-of-the-Art HPC and Generative AI |
| Poster 6 | Tristan Pahor | NOUS: Advancing Europe's Sovereign Cloud through HPC, Edge Computing and Data Spaces |
| Poster 7 | Bernd Saurugger | Privacy Preserving Generative AI and Model Sanitization |
| Poster 8 | Marie Czuray | HPC meets EOSC: Emerging Tasks, Opportunities and Concerns |
| Poster 9 | Martin Thaler | MUSICA - From Scratch To A Fully Functional Server Room @UIBK |
| Poster 10 | Ezhilmathi Krishnasamy | Quantum Computing for Scientific Computing |
| Poster 11 | Michael Otto & Florian Atzenhofe | A Domain-Aware Controller for Managed LLM Inference on Shared HPC Infrastructure in Digital Humanities |
| Poster 12 | Maizura Ibrahim | High-Performance Computing for AI-Based Insider Threat Analytics: An Experimental Study |
| Poster 13 | Till Kahlke | Training Alternative Large Scale Representations on Current High-Performance Computers |
| Poster 14 | Aleksander Grm | Open-source framework for parametric study of hydrofoil profiles and motivation for using Physics-Informed Neural Networks (PINN) |
| Poster 15 | Leon Kos | VIVID-DTE -- Verification-oriented Interactive Visualisation and Decision Support for the EUROfusion Digital Twin Environment |
| Poster 16 | David Lajevec | Heterogeneous Exascale Particle-in-Cell |
| Poster 17 | Luis Casilas-Trujillo | LEONARDO data centric general purpose partition at AURELEO |
| Poster 18 | Atul Singh & Diego Medeiros dall | Spreading the Word — ASC Outreach |

*19:00*      *end of sessions*

**10 April 2026 ASHPC26**

**09:00**      Session 9

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| 09:00 | KEYNOTE | Bojan Žunkovič | Beyond Isolated Quantum Computing Paradigms: Hybridization and Supercomputing |
| 09:45 | | Janez Povh | Quantum and Simulated Annealing-Based Iterative Algorithms for QUBO Relaxations of the Sparsest $k$-Subgraph Problem |
| 10:00 | | Peter Kandolf | Hybrid QC/HPC infrastructure |
| 10:15 | | Jens Stücker | JZ-Tree: Lightning fast neighbor search and friends-of-friends with dual tree traversal in JAX and CUDA. |

*10:30*      *Coffee Break*

**11:00**      Session 10

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| 11:00 | Ivona Vasileska | Performance-Portable Particle-in-Cell with Multigrid Solvers on Heterogeneous CPU–GPU Node |
| 11:15 | Matthias Weber | LAMMPS Molecular Dynamics Simulations of Laser-induced Periodic Surface Structure Formation: Removal of desorbed atoms between Laser Shots |
| 11:30 | Mark Denes & Andras Schweighan | Time-Series Forecasting and Alert Classification for Proactive IT Infrastructure Monitoring |
| 11:45 | István Tamás | Optimizing HPC for Data-Intensive AI Tasks |
| 12:00 | Tina Crnigoj Marc | Innovative Expansion of HPC Infrastructure for Scalable AI Inference Using MACx GPUs |
| 12:15 | Josef Taha | AI FM Lifecycle |
| 12:30 | Aleksandar Trklja | HPC-Enabled LLM Fine-Tuning and Machine Translation of Legal Texts on LEO5 |

**12:45**      **Closing remarks by PC chair, ASHPC27 announcment by future OC chair**

*13:00*      *Lunch Break*

*14:30*      *end of ASHPC26*