EuroHPC User Days - Programme

Day 1 – Tuesday 30 September

Time	Session	Speakers	Room
09:00–10:00	Moderation by **Josephine WOOD**, Head of Unit Strategy and Governance, EuroHPC Joint Undertaking		**Queen's Hall** (Black Diamond)
	Opening Plenary	• **Anders JENSEN**, Executive Director, EuroHPC Joint Undertaking • **Annemarie FALKTOFT**, Danish Agency for Higher Education and Science, Deputy Director-General • **Gitte Julin KUDSK**, Director, Danish e-Infrastructure Consortium (DeiC) • **Chris RICHARDSON**, Chair, User Forum Coordination Group • **Luigi DEL DEBBIO**, Chair, EuroHPC Access Resource Committee	
	EuroHPC JU & Infrastructure Update	**Evangelos FLOROS**, Head of Unit Infrastructure, EuroHPC JU	
10:00–11:00	Coffee Break & Networking		
11:00–12:30	Moderation by **Pauline GOUNAUD**, Head of Communication Sector, EuroHPC Joint Undertaking		**Queen's Hall** (Black Diamond)
	Access Modes	**Klara MEŠTROVIĆ**, Head of Sector Peer Review, EuroHPC Joint Undertaking	
	Accessing EuroHPC Systems: Do's & Don'ts	**Luigi DEL DEBBIO**, Chair, EuroHPC Access Resource Committee	
	Accessing EuroHPC Support Services	**Laura MORSELLI**, MINERVA project **Guy LONSDALE**, FFplus project **Natalie LEWANDOWSKI**, CASTIEL project **Janne IGNATIUS**, EPICURE project	
12:30–14:00	Lunch Break: **Meet & Greet with EuroHPC supercomputers and AI Factories**		
	Parallel Sessions on Use Cases		
14:00–15:30	**Chemical Sciences**	Moderation by **Daniel OPALKA**, Head of Unit Research and Innovation, EuroHPC Joint Undertaking **Massimo BOCUS**: *Pushing the limits of computational chemistry: the phase diagram of water* **Javier ORTIN**: *CoSSPIA – Computational Screening of Sustainable Polymers for Industrial Applications* **Nuria LOPEZ:** *Atomistic modelling of cathode during electrochemical CO_2 reduction: Material dynamics and interfaces*	**DAC** (Danish Architecture Centre)
	High Energy Physics	Moderation by **Maria GIRONE**, Head of CERN Openlab & Vice-Chair User Forum	**Blixen Room** (Black Diamond)

		Frederic BONNET: *Benchmarking lattice quantum field theory codes across EuroHPC platforms for physics beyond the standard model on physical systems*	
		Xander De WIT: *Multi-GPU porting of a phase-change cascaded lattice Boltzmann method for three-dimensional pool boiling simulations*	
		Szabolcs BORSANYI: *The QCD crossover line in a finite volume*	
		Giannis KOUTSOU: *Large-scale simulations of lattice QCD for nucleon structure using N_f=2+1+1 flavors of twisted mass fermions*	
		Paolo VALVO: *Hierarchical Dynamic Load Balancing Strategy for a p-adaptive Discontinuous Galerkin Compressible LES Solver*	
	Engineering	Moderation by **Kaare MIKKELSEN**, Associate Professor Dep. of Electrical and Computer Engineering, Biomedical Engineering University of Aarhus	**Queen's Hall** (Black Diamond)
		Chris RICHARDSON: *An efficient multigrid solver for finite element methods on multi-GPU systems*	
		Allan BEURVILLE: *Sonic Fan Large Eddy Simulation*	
		Arivazhagan G. BALASUBRAMANIA: *Elasto-Inertial Turbulence in Complex Fluids (EITCF)*	
		Yu-Hsiang TSAI: *Enabling Ginkgo as numerics backend in nekRS employing a loosely-coupled configuration file concept*	
		Andrea MONTESSORI: *accLB: A High-Performance Lattice Boltzmann Code for Multiphase Turbulence on Multi-Gpu Architectures*	
15:30–16:30	Coffee Break & Networking		
16:30–18:00	**Panel on AI Factory support to users**		**Queen's Hall** (Black Diamond)
	Moderation by **Rafal DUZCMAL**, Chair, EuroHPC Joint Undertaking Governing Board		
18:00-20:00	Welcome reception & Networking		

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Day 2 – Wednesday 1 October

Time	Session	Speakers	Room
09:00–10:30		Moderation by **Chris RICHARDSON**, Chair, User Forum	**Queen's Hall** (Black Diamond)
	User Forum	Introduction	
		Panel discussion on Governance, moderated by **Sinead RYAN**	
		Panel discussion on Users, moderated by **Thomas GEENEN**	
10:30–11:30		Coffee Break & Networking	
		Parallel Sessions on Use Cases	
11:30–13:00	**Earth System Sciences**	Moderation by **Catarina GUERREIRO**, Project Officer Infrastructure, EuroHPC Joint Undertaking	**DAC** (Danish Architecture Centre)
		Miguel DE LE COURT: *Multiscale ocean modelling: bridging the gap between global changes and local impacts*	
		Tommaso BENACCHIO: *Improving the scalability of a high-order atmospheric dynamics solver based on the deal.II library*	
		Thomas GEENEN: *AIFS-ensemble*	
		Henrik Andersen SVEINSSON: *CO2Basalt*	
	Life Sciences, Physiology and Medicine	Moderation by **Martijn OLDENHOF**, Project Officer Research and Innovation, EuroHPC Joint Undertaking	**Blixen Room** (Black Diamond)
		Fabio MINAZZI: *Voice for Purpose 2: Enabling expressive conversations with patients with permanent voice loss and movement paralysis*	
		Pablo NAVARRO: *ModTox Platform*	
		RICARDO NOBRE: *Porting Epistasis Detection Methods to EuroHPC Supercomputers*	
		Xavier SEVILLANO: *Unsupervised artificial intelligence models for Down syndrome neuroimaging research: from automatic brain alteration detection to the generation of synthetic 3D magnetic resonance images*	
	Artificial Intelligence for Science	Moderation by **Eske CHRISTIANSEN**, Head of HPC Department, DeiC	**Queen's Hall** (Black Diamond)
		Evangelos KAZAKOS: *A universal approach for video understanding tasks with language grounding*	
		Alexander SHVETS: *Towards Linguistic Diversity: Optimizing Data Distribution for Multilingual NLP Inclusivity*	
		Panagiotis PAPADIMITROULAS: *ΔOSIMETReye: A GenAI-based tool for 3D dosimetry from 2D imaging for preclinical studies*	
		Jesus CARRETERO: *Dynamic Resources Management for Exascale in ADMIRE Framework*	
		Florian BERBERICH: *PRACE Scientific and Innovation Case for HPC in Europe*	

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13:00–14:00	Lunch Break: **Meet & Greet with EuroHPC CoEs, CASTIEL and User Forum Coordination Group**		
Parallel Sessions on Use Cases			

14:00–15:30	**Universe Sciences**	Moderation by **Laura MARTINEZ**, Programme Manager Infrastructure, EuroHPC Joint Undertaking **Nitin SHUKLA:** *Towards Exascale Computing for Astrophysical Simulation Leveraging the Leonardo EuroHPC System* **Francesco PUCCI:** *Cosmic ray transport in anisotropic turbulence* **Minna PALMROTH**: *ForEshock – Magnetosheath – MAgnetosphere in 6D (FEMMA)* **Maarit KORPI-LAGG**: *Dynamos and dynamics in the solar convection zone (DY)^2SOL*	**DAC** (Danish Architecture Centre)
	Material Sciences and Solid-State Physics	Moderation by **Lilit AXNER**, Programme Manager Infrastructure, EuroHPC Joint Undertaking **Luis TEIXEIRA:** *Transforming Computational Power into Environmental Solutions: HPC-driven Research on Urethanase-mediated Plastic Degradation* **Aloïs CASTELLANO**: *Vibrational spectroscopy in defected systems* **Giovanni DI LIBERTO:** *Coordination Chemistry on Single Atom Alloys*	**Blixen Room** (Black Diamond)
	Artificial Intelligence Industry applications	Moderation by **Dennis LANGE WOLLBRINK**, Head of Danish National Competence Center, EuroCC2 **Jenny ROMANO**: *LUCID - AI-Powered Knowledge Graphs for Fact-Based Journalism* **Derya UYSAL**: *Enhancing Financial NLP with Supercomputing: Spell Correction and Domain-Specific BERT Pretraining* **Özay EZERCELI:** *Tailoring AI for Turkish Law: Domain-Specific Fine-Tuning of Small Language Models for Legal Expertise* **Ilja RAUSCH:** *Continued Pre-training of LLMs on Leonardo using EU institutional data*	**Queen's Hall** (Black Diamond)
15:30 – 16:00	Coffee break & networking		
16:00–17:00	Final Plenary: **What's next for Users?**	Moderation by **Josephine WOOD**, Head of Unit Strategy and Governance, EuroHPC Joint Undertaking *Quantum in Action with PIAST-Q and VLQ* **Krzysztof KUROWSKI** (PCSS) & **Konrad WOJCIECHOWSKI** (PCSS) **Branislav JANSIK** (IT4Innovation National Supercomputing Center) Award Ceremony: Best User & Best Paper Awards Closing Remarks	**Queen's Hall** (Black Diamond)