



Quantum Software Workshop

Friday 31st January 2025, Zoom

The European Commission and EuroHPC JU are organizing a workshop on Quantum Software, Friday 31.01.2025, 09:00-12:30, taking place virtually via Zoom: [register here](#).

This event will bring together key stakeholders, including leading quantum computing companies, hosting entities, cloud vendors, EuroHPC JU, and potential software users, to discuss the future of quantum software and QC-HPC middleware integration SW in Europe. The workshop will focus on two main topics: the development of a **hardware-agnostic quantum software stack** and the integration of quantum computing with HPC via **middleware technologies**. Participants will collaborate to identify priorities, challenges, and actionable steps to support a unified and open-source European approach to quantum software.

Note: This workshop is intended for participants based in the EU and associated countries.

Agenda (tbc)

Time	Session	Presenter(s)
09:00–09:10	Welcome and Opening Remarks: European Commission Quantum Technologies Unit Representative.	Oscar Diez, European Commission
09:10–09:30	Keynote Address: Advancing Europe's Quantum Software Ecosystem.	Oscar Diez, European Commission
09:30–10:15	Session 1: Hardware-Agnostic Quantum Software Stack:	Presentations by:
	- Building Interoperable Quantum Software Architectures	Adriaan Rol, Orange Quantum Systems
	- Open Standards for Quantum Algorithms	Frank Wilhelm-Mauch, Forschungszentrum Jülich
	- Supporting Quantum-Ready Development Environments	Fanny Bouton, OVHcloud
	- Scaling Quantum Applications Across Platforms	Roman Orus, Multiverse Computing
	Moderator:	Doru Tanasa, European Commission
10:15–10:30	<i>Break</i>	
10:30–11:15	Session 2: Middleware for Quantum Computing and HPC Integration:	Presentations by:
	- Middleware for Quantum-Classical Scheduling and Execution	Martin Schulz, TU Munich
	- Integrating Quantum and HPC Workflows: from requirements to implementations	Krzysztof Kurowski, Poznan Supercomputing and Networking Centre
	- Lessons Learned from Hybrid Quantum-HPC Use Cases	Sabrina Maniscalco, Algorithmiq
	- Towards Seamless Quantum Acceleration in HPC Systems	Cyril Allouche, Eviden
	Moderator:	René Chatwell, EuroHPC JU
11:15–12:00	Interactive Discussion: Open forum involving all participants to reflect on both sessions, identify key challenges, and propose recommendations.	Facilitator: Robert Wille, TU Munich
12:00–12:30	Summary and Next Steps: Concluding remarks by European Commission Representative, summarizing outcomes and highlighting forthcoming opportunities for collaboration.	Oscar Diez, European Commission