

The Atos QLM in HPC

program | optimize | simulate | schedule

myQLM

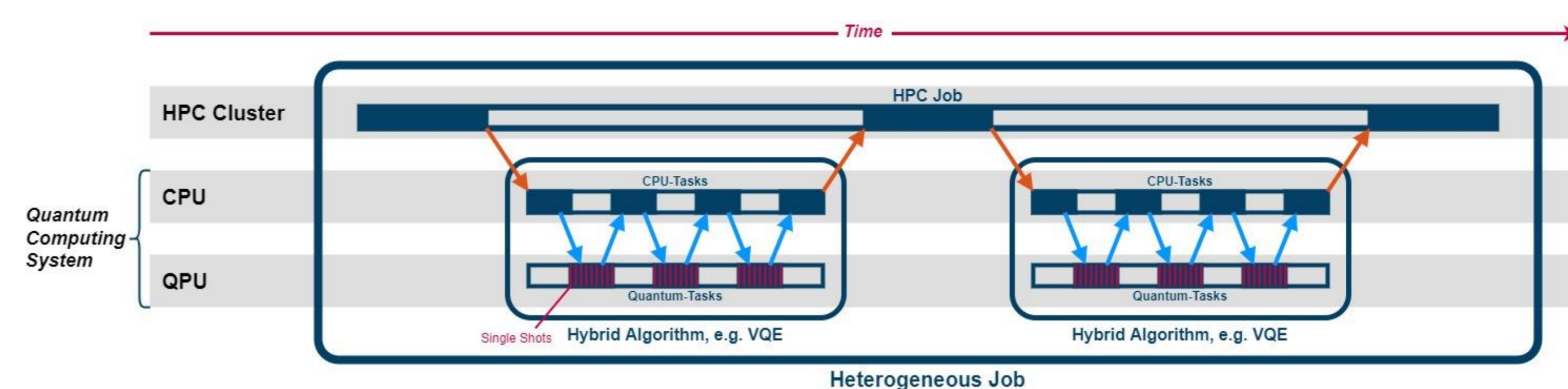
Free and powerful quantum programming environment

- Simulate a noiseless quantum computer on your laptop
- Study with a large number of Jupyter notebook tutorials
- Access QLM via myQLM PowerAccess



Hybrid Scheduling

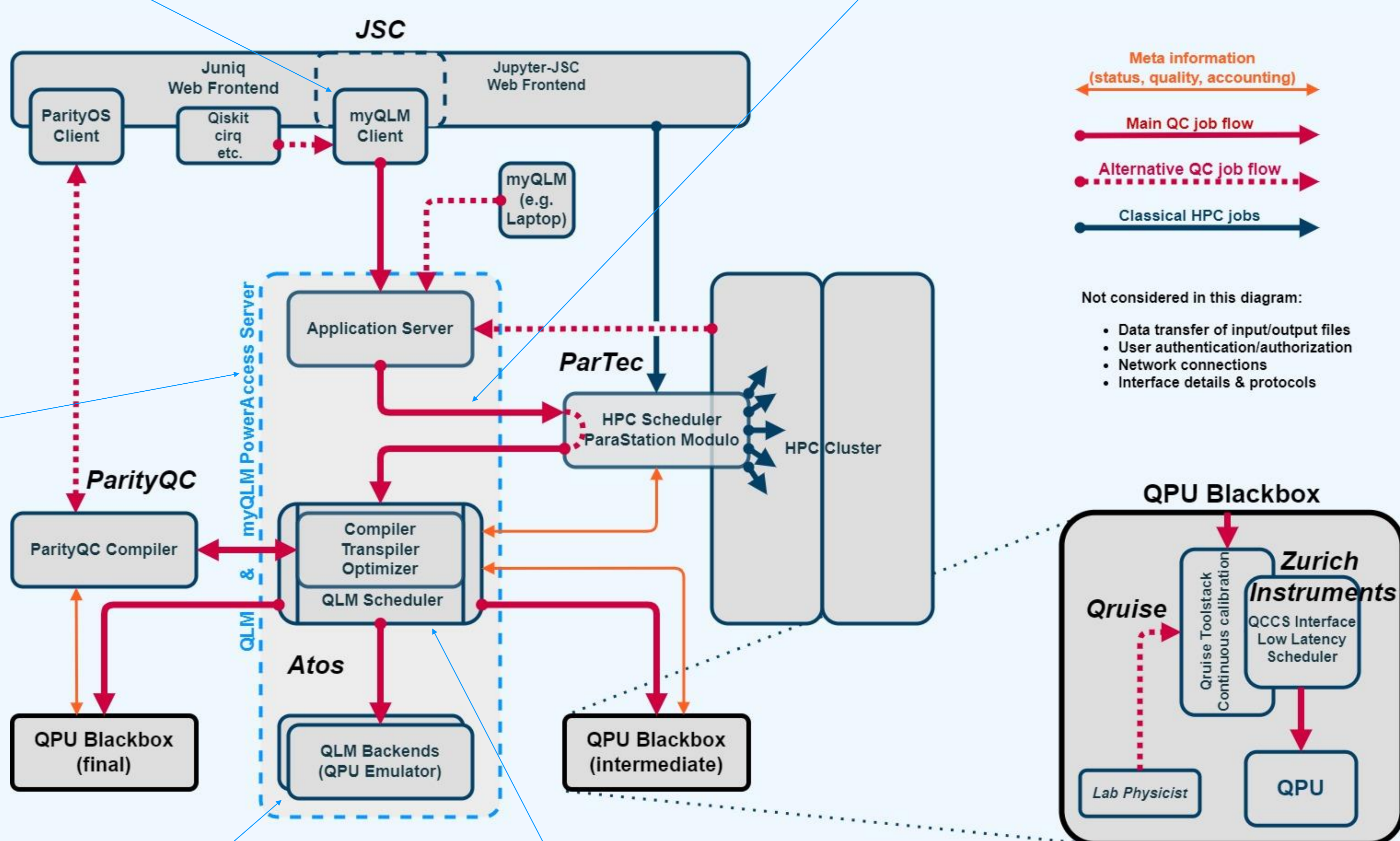
Example for heterogeneous quantum-classical job



myQLM PowerAccess Server

Remote access to QLM & QPUs

- Simulate up to 41 qubits from your laptop
- Work with your myQLM – use the power of QLM and real QPUs
- Use same workflow for simulated and real quantum hardware
- Integrate external high level scheduler (Slurm/ParaStation Modulo)
- Benefit from built-in low level scheduler for quantum jobs
- Have a dedicated hybridisation node in your cluster



QLM

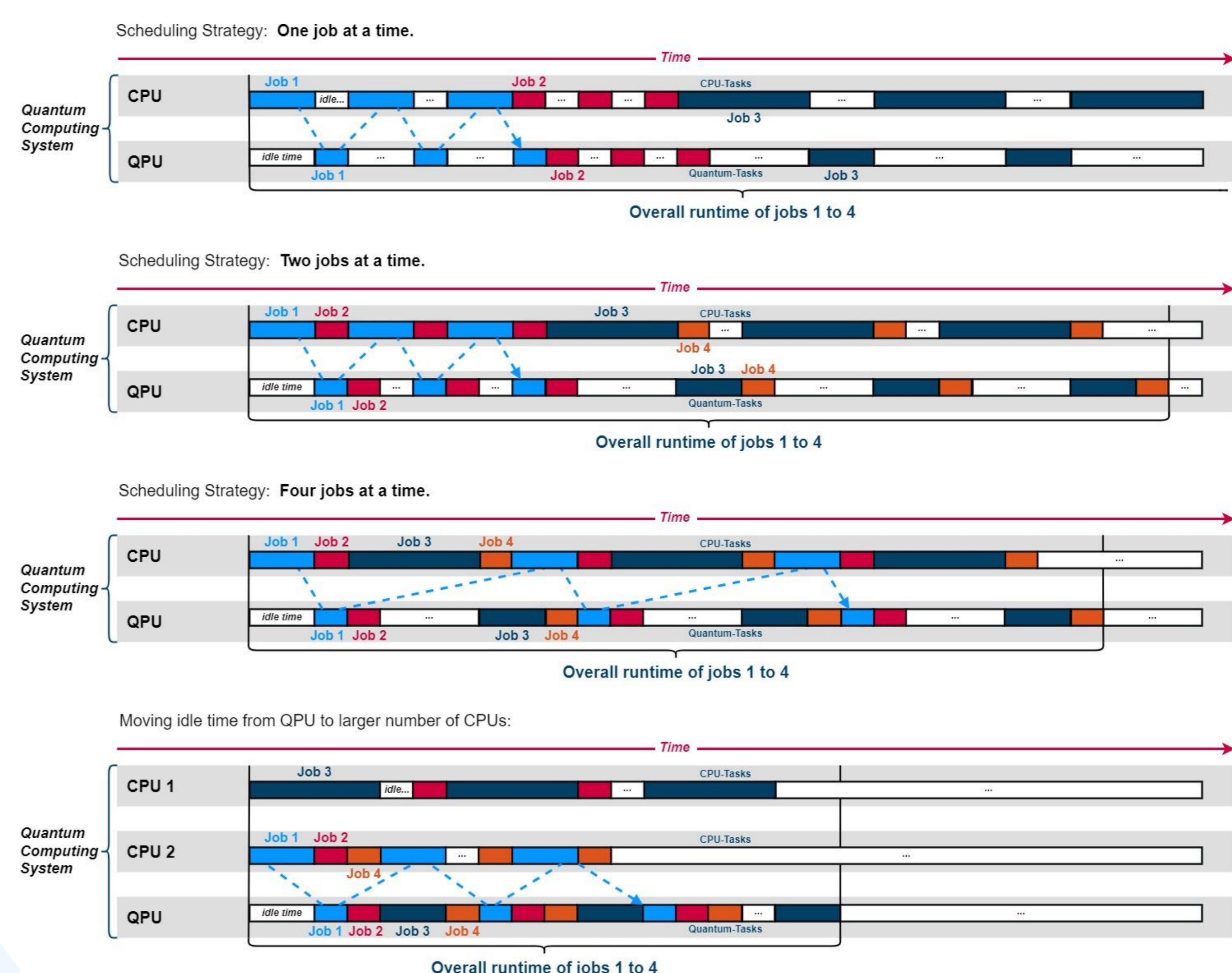
Hardware agnostic QPU emulator for 41+ qubits

- Circuit compilation/transpilation and optimization
- Unique modular plugin architecture
- Many different noise models (amplitude damping, depolarizing noise, etc.)
- Many ready-to-use:
 - Optimizers
 - Quantum algorithms (VQE, QAOA, etc.)
 - Hardware models



QLM low level scheduler

Impact of scheduling strategies for tightly integrated variational jobs



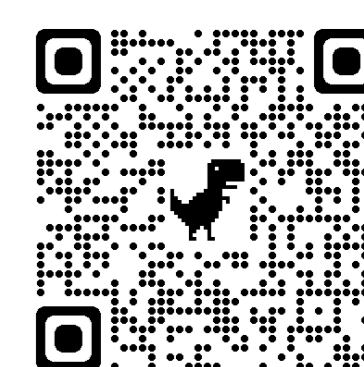
Contact

Erik Soyez, erik.soyez@atos.net
 Elke Gsell, elke.gsell@atos.net
 Dr. Marius Schöndorf, marius.schoendorf@atos.net

SPONSORED BY THE



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