			Nordic Quantum /			
			Date: Nov 3-7, 2025	location: RISE KTH at "Innoversum" room	organisers: ENCCS, NCC Denmark, NCC Lithuania	
	expected	Basics Quantum computing: Tools and QC-access Software & algorithm. Elementary exercises	Basic/ Intermediate Optimisation of logistics and QAOA use cases	Intermediate Variational algorithms. Molecules, VQE use cases	Intermed/advanced Advanced use cases: Physics, Chemistry, Materials, Health, Finance, Logistics	Advanced FTQC: HW/SW implementation of QEM and QEC. Al and QC
		Monday 3rd	Tuesday 4th	Wednesday 5th	Thursday 6th	Friday 7th
slot 1	:00-10:00	arrival and coffee 9:00-9:30 Welcome & Introduction	Introduction to variational quantum algorithms: QAOA	Introduction to variational quantum algorithms: VQE and beyond (QPE,, SQD)	introduction toTrapped-ion	Quantum Neural Networks (lecture)
	0.00	to QAS2025 9:00-10:00 Thor Wikfeldt (ENCCS/RISE, SE)	Franz Fuchs (SINTEF, UiO, NO)	Juan (ENCCS, RISE, SE)	Panagiotis Barkoutsos (IonQ)	Stefano Markidis (KTH, SE)
slot 2	10:00-11:00	Introduction to the European Hybrid classical/quantum HPC+AI+QC ecosystem. LUMI-Q	In-depth description of variational quantum algorithms: QAOA 10:00-10:40 Franz Fuchs	VQE applied to use cases for quantum chemistry/drug discovery: in-depth description of specific use 10:00-10:40 case	Atomistic simulations on quantum accelerated supercomputing 10:00-10:40 Karim (ENCCS/DISE, SE)	hands-on QNNs using pennylane/classification (tutorial) Stefano Markidis (KTH, SE))
		Quantum Flagship Mikael Johansson (CSC, FI)	coffee break	Panagiotis Barkoutsos (IonQ) coffee break	coffee break	coffee break
slot 3	00-12:00	Overview of the HPC/QC software stack, from ready-made Q-libraries for common tasks to circuit level assembly and hardware-level coding	(placeholder)Integrating quantum processing units with supercomputers	High Ground State Overlap via Quantum Embedding Methods	Accelerated Quantum Supercomputing using NVIDIA CUDA-Q	Quantum Reservoir computing
	11:	Miroslav Dobsicek (Chalmers Next Labs, SE)	Speaker	Matthias Christandl (København U, DK)	Esperanza Cuenca-Gómez	Ruben Pariente Bassa (SINTEF, NO)
	12:00-13:00	Lunch	Lunch	Lunch	Lunch	Lunch
slot 4	13:00-14:00	Quantum gates and circuits Giulia Ferrini (MC2, Chalmers/WACQT, SE)	Getting started with algorithm development on actual quantum hardware using IQM Resonance Stefan Seegerer (IQM)	Controlling a quantum computer using pulses Stefan Seegerer (IQM)	Quantum error-correction (QEC) check the device qiskit? qrisp? Mats Granath (Göteborg University)	Towards 2045: Do we still talk about Quantum superiority? Panel discussion
slot 5	4:00-15:00	Quantum gates, circuits and algorithms	Developing quantum algorithms with qrisp, the next generation of quantum algorithm development	interactive tutorial on the devices (LUMI-Q/IQM devices)	quantum monte carlo and quantum finance	closing
	14:	Giulia Ferrini, Laura Garcia Alvarez (MC2, Chalmers/WACQT, SE)	Stefan Seegerer (IQM)	Stefan Seegerer (IQM)	Björn Löfdahl (SEB)	The end
	15:00-15:30	coffee break	coffee break	coffee break	coffee break	
slot 6	15:30-16:30	Quantum Information Theory introduction, building quantum algorithm, QFT,	interactive tutorial: experiments with quantum gates, circuits and algorithms (qiskit simulation)	interactive tutorial: experiments with quantum gates and quantum circuits for VQE (simulation)	interactive tutorial: Quantum error-correction (QEC) hands-on	
		Stefano Markidis (KTH, SE)	tutorial, simulation (Laura)	tutorial, Juan	Mats Granath team (Göteborg University)	
slot 7	16:30-17:30	Quantum error mitigation (QEM) applied to simulation of physical systems	interactive tutorial: Execution of simple examples on optimisation with QAOA (simulation)	interactive tutorial: Execution of simple quantum chemistry examples using VQE on simulation vs. LUMI-Q/IQM	interactive tutorial: Quantum finance, Classical Monte Carlo on a QC, Quantum Amplitude Estimation (QAE)	
		Göran Wendin (RISE, SE)	hands-on (Franz)	hands-on (IQM team/Panos)	Björn Löfdahl & team	
	0-20:00	Reception,		Buffé	PechaKucha presentations	
	18:00	mingling		dinner	and posters	