Nordita QEC timetable

Monday 16th June

Time	Speaker	Talk
9.00-9.15	Organisers	Welcome
9.15 – 11.00	Joe Goodwin	Tutorial: Trapped ion quantum computing
11.00-11.15		Announcements/roadmaps
11.15-14.00	Lunch	
14.00-14.45	Kaavya Sahay	Magic state cultivation on the folded surface code
14.45-15.30	Ben Criger	One-Bit Addition with the Smallest Interesting Colour Code

Tuesday 17th June

Time	Speaker	Talk
9.15 – 11.00	Antony Leverrier	Tutorial: QEC formalism and LDPC codes
11.00-14.00	Lunch	
14.00-14.45	Timo Hillmann	Single-shot and measurement-based quantum error correction via fault complexes
14.45-15.30	Stefan Krastanov	Finding the Best Entanglement Purification Circuits
15.30-16.00		Break
16.00-17.00		15 minute contributed talks
	Surabhi Luthra	Unlocking early fault-tolerant quantum computing with mitigated magic dilution
	Gyorgy Geher	To reset, or not to reset -- that is the question
	Liam Veeder-Sweeney	QEC: Python Tools for Quantum Error Correction
	Arshpreet Maan	Correlated Decoding of Y Errors in QLDPC codes: BP Serial vs Parallel

Wednesday 18th June

Time	Speaker	Talk
9.30 – 10.15	Alexander Müller-Hermes	Fault-tolerant coding for quantum communication
10.15-11.00	Ted Yoder	A modular quantum computer based on bivariate bicycle codes
11.00-14.00	Lunch	
14.00-14.45	Anthony Micciche	Optimizing compilation of error correction codes for 2xN quantum dot arrays and its NP-hardness
14.45-15.30		15 minute contributed talks

	Ludwig Schmid	Classical Design Techniques for Fault-Tolerant Quantum Circuits
	Francesco Cesa	Fast and Error-Correctable Quantum RAM
	Eleanor Kneip	The Bivariate Bicycle Code for Qudits (BBQ Codes)
	Tenzan Araki	Space-time tradeoff in networked virtual distillation
18.00		Conference dinner

Thursday 19th June

Time	Speaker	Talk
9.30 – 11.15	Simon Evered	Tutorial: Neutral atom quantum computing
11.15– 14.00	Lunch	
14.00-14.45	Alex Kubica	Reducing the overhead of QEC
14.45-15.45	Whole workshop	Roadmaps

Friday 20th – midsommar

Monday 23th June

Time	Speaker	Talk
9.00-9.15	Organisers	Welcome
9.15 – 11.00	Armanda Quintavalle	Tutorial: Error-corrected logic gates
11.00-11.15		Announcements/roadmaps
11.15-13.30	Lunch	
13.30-14.15	Alec Eickbusch	Demonstrating dynamic surface codes
14.15-15.00	Leonid Pryadko	New families of single-shot quantum LDPC codes
15.30-16.30	Steve Girvin	Colloquium. Quantum Signal Processing: Making Schrödinger Cats and Other Exotic States of Microwave Photons Albano Hus 2: C2207 - Auditorium 4

Tuesday 24th June

Time	Speaker	Talk
9.15 – 11.00	Giovanna Tancredi	Tutorial: Superconducting qubits
11.00-14.00	Lunch	
14.00-14.45	Anton Frisk Kockum	Architecture considerations for superconducting quantum processors
14.45-15.30	Stefano Paesani	A loss-tolerant photonic qubit
15.30-16.00		Break

16.00-17.00		15 minute contributed talks
	Xanda Kolesnikow	Protected phase gate for the 0-π qubit using its internal modes
	Aislin Wells	Erasure Fluxonium: Tailoring Errors for Optimal Performance in a Quantum Error-Correcting Code
	Ilya Besedin	Realizing Lattice Surgery on Two Distance-Three Repetition Codes with Superconducting Qubits
	Huyen Do	Are decoders symmetric?

Wednesday 25th June

Time	Speaker	Talk
9.30 – 11.15	Aleksander Kubica	Tutorial: Decoding problem and stat mech mappings
11.15-14.00	Lunch	
14.00-14.45	Guillaume Dauphinais	A high-level view of Xanadu's photonic architecture
14.45-15.30	Michael Kastoryano	A new push for self correction?
18.00		Conference dinner

Thursday 26th June

Time	Speaker	Talk
9.30-11.15	Robin Harper	Tutorial: Benchmarking noise in QEC experiments
11.15-11.30		
11.30-12.00		15 minute contributed talks
	Basudha Srivastava	Exact results on finite size corrections for surface codes tailored to biased noise
	Giacomo Fregona	Codes and decoders at low error weight
12.00-12.30	Whole workshop	Roadmaps
12.30-	Lunch	
	Free afternoon	

Friday 27th June

Time	Speaker	Talk
9.00-10.0	Volodymyr Sivak	Quantum error correction below the surface code threshold
10.00-10.15		Break
10.15 – 11.00	Sergiy Denysov	Experimental Detection of Dissipative Quantum Chaos
11.00-12.00		15 minute contributed talks

	Mark Turner	Scalable decoding protocols for fast transversal logic in the surface code
	Moritz Lange	Machine Learning Approaches to Surface Code Decoding: From Neural Matching to Sequential Graph Models
	Tomasz Andrzejewski	Fault tolerant quantum computation through code teleporatation
	Ioana Moflic	On the Constant Depth Implementation of Pauli Exponentials
12.00-	Lunch	
	Free afternoon	

Monday 30th June

Time	Speaker	Talk
9.00-9.15	Organisers	Welcome
9.15 – 11.00	Maximilian Rimbach-Russ	Tutorial: Spin qubits
11.00-14.00	Lunch	
14.00-14.45	Alexandru Paler	Computing at scale: from measurement-free error correction to extremely large quantum circuits
15.00	Nordita ”Fika” (coffee break)	6th floor

Tuesday 1st July

Time	Speaker	Talk
9.15 – 11.00	Yvonne Gao	Tutorial: Bosonic QEC
11.00-14.00	Lunch	Lunch
14.00-14.45	Delphine Martres	Floquet engineering for QEC codestate preparation
14.45-15.30	Victor Albert	Letting the tiger out of its cage: bosonic coding without concatenation
15.30-16.00		Break
16.00-17.15	5x	15 minute contributed talks
	Harry Putterman	Hardware-efficient quantum error correction using concatenated bosonic qubits
	Mohammad Nobakht	Improved Noise Reduction in Continuous-Variable Quantum Systems
	Kaustav Chatterjee	All-optical quantum memory using bosonic quantum error correction codes
	Aleksandr Dorogov	Advancing bosonic cQED architecture: towards fast frequency tunability for quantum simulation and microwave lasing

	Jesper Lind-Olsen	Two qubit entangling gates on dissipatively stabilized multimode Schrödinger cat states

Wednesday 2nd July

Time	Speaker	Talk
9.30 – 11.15	Peter van Loock	Tutorial: Photonic QC
11.15 -11.30		Break
11.30-12.15	Emil Østergaard	Fault-Tolerant Continuous Variable Quantum Computing
12.15-	Lunch	
	Free afternoon	

Thursday 3rd July

Time	Speaker	Talk
9.00-9.45	Giulia Ferrini	Classical simulation of bosonic-encoded quantum computations
9.45 – 10.30	Kae Nemoto	Invited seminar
10.30-11.00		Break
11.00-11.45	Ben Brown	Universal quantum computing in two dimensions without getting tied in knots
11.45-14.00	Lunch	Lunch
14.00-14.45	Matthias Löbl	Variants of a Union-Find decoder
14.45-15.30	Kenneth Brown	Time Dimension of Fault Tolerance
15.30-16.00		Break
16.00-16.45	Adithi Udupa	Performance of rotation-symmetric bosonic codes in the presence of non-Markovian effects induced by random telegram noise
18.00		Conference dinner

Friday 4th July

Time	Speaker	Talk
All day	Discussions	No talks
11.00-14.00	Lunch	