Monday, August 4, morning

	A (Grand Hall)	B (LG-07)	C (LG-08)
9:15-9:30	Welcoming address by the President of HKU, Prof. Xiang Zhang		
9:30-10:30	Plenary: Debbie Leung, Quantum state purification		
10:30-11:00			
11:00-11:30	129 No practical broadcasting even virtually	274 Efficient quantum-enhanced classical simulation via Pauli propagation	124 A Solovay-Kitaev theorem for quantum signal processing
11:30-11:50	45 One-to-one correspondence between port-based teleportation and unitary estimation	180 Approximating fixed size correlations in polynomial time	219 Complementary polynomials in quantum signal processing
11:50-12:10	270 Pretty-good simulation of all quantum measurements by projective measurements	101 Computing n-time correlation functions without ancilla qubits	118 Semiclassical geometric tensor in multiparameter quantum information
12:10-12:30	119 Multiplication triples from entangled quantum resources	276 Variational LOCC-assisted quantum circuits for long-range entangled states	176 Faster quantum algorithm for multiple observables estimation

Monday, August 4, afternoon

	A (Grand Hall)	B (LG-07)	C (LG-08)
14:30-15:30	Plenary: Howard Wiseman, Quantum Information Science and Quantum Foundations: What would happen if they were friends?		
15:30-16:00			
16:00-16:20	55 A quantum wheel of fortune	27 Clifford gates with logical transversality for self-dual CSS codes	39 Nearly query-optimal classical shadow estimation of unitary channels
16:20-16:40	67 Classifying causal structures: ascertaining when classical correlations are constrained by inequalities	44 The Clifford hierarchy for one qubit or qudit	37 Auxiliary-free replica shadows: efficient estimation of multiple non-linear quantum properties
16:40-17:00	265 Advantages and limitations of indefinite causal order in communication	56 Catalytic transformation from computationally universal to strictly universal measurement-based quantum computation	178 Qudit shadow estimation based on the Clifford group and the power of a single magic state
17:00-17:20	267 Generalized Kochen-Specker theorem for finite deterministic outcome assignments	70 Robust loading of general classical data into quantum computers	298 Classical algorithm for quantum mean values of linear optical circuits

Tuesday, August 5, morning

	A (Grand Hall)	B (LG-07)	C (LG-08)
9:30-10:30	Plenary: Ruslan Shaydulin, Certified randomness using a trapped-ion quantum processor		
10:30-11:00			
11:00-11:30	275 Probing many-body Bell correlation depth with superconducting qubits	223 Faster algorithmic quantum and classical simulations by correlated product formulas	255 Quantum algorithm for reversing unknown unitary evolutions
11:30-11:50	168 Quantum computational advantage of noisy boson sampling with partially distinguishable photons	145 Nearly optimal circuit size for sparse quantum state preparation	156 Nonequivalence between absolute separability and positive partial transposition in the symmetric subspace
11:50-12:10	87 Photonic simulation of Majorana-based Jones polynomials	232 Measurement-driven quantum advantages in shallow circuits	97 Distributed quantum inner product estimation with shallow circuits
12:10-12:30	252 Optimal entanglement-assisted telescopy	64 Doubly-polylog-time-overhead fault-tolerant quantum computation by a polylog-time parallel minimum-weight perfect matching decoder	51 Optimal quantum estimators for pure state closedness

Tuesday, August 5, afternoon

	A (Grand Hall)	B (LG-07)	C (LG-08)
14:30-15:30	Plenary: Andrew White, Quantum mechanics can find a needle in a haystack every time		
15:30-16:00			
16:00-16:20	127 Graph-based design of linear quantum networks for heralded multipartite entanglement generation	137 Quantum computing and persistence in topogical data analysis	161 A unified approach to contraction and correlation coefficients
16:20-16:40	36 Practical advantage of classical communication in entanglement detection	174 On the quantum computational complexity of classical linear dynamics with geometrically local interactions	301 No-go theorem for generic simulation of qubit channels with finite classical resources
16:40-17:00	33 Entanglement detection length of multipartite quantum states	43 Classification and coarse-graining of quantum cellular automata	105 A new quantum speed limit based on unitarily invariant norms for open system dynamics
17:00-17:20	231 Detecting genuine multipartite entanglement in multi-qubit devices with restricted measurements	238 Towards a universal gateset for QMA_1	182 Information-theoretic derivation of energy, speed bounds, and quantum theory

Wednesday, August 6, morning

	A (Grand Hall)	B (LG-07)	C (LG-08)
9:30-10:30	Plenary: Patrick Rebentrost, Quantum transformers: prospects and challenges		
10:30-11:00			
11:00-11:30	194 Ansatz-free Hamiltonian learning with Heisenberg-limited scaling	159 Tight and self-testing multipartite quantum Bell inequalities from the renormalization group	103 Generalized quantum asymptotic equipartition and its applications
11:30-11:50	250 Hamiltonian learning at Heisenberg limit for hybrid quantum systems (online)	302 Quantum nonlocality is insufficient for standard but sufficient for generalized device-independent randomness generation	71 Unified framework for calculating convex roof resource measures
11:50-12:10	196 Learning junta distributions, quantum junta states, and QAC0 circuits	83 Necessary and sufficient condition for randomness certification from incompatibility	73 Universal work extraction in quantum thermodynamics
12:10-12:30	216 Learning quantum states with tunable loss functions	185 Random approximate quantum information masking	146 Quantum state-agnostic work extraction (almost) without dissipation

Thursday, August 7, morning

	A (Grand Hall)	B (LG-07)	C (LG-08)
9:30-10:30	Plenary: Chiao-Hsuan Wang, Quantum engineering: from dissipation to analog computation		
10:30-11:00			
11:00-11:30	166 Hamiltonian dynamics learning: a scalable approach to quantum process characterization	75 Optimal conversion from classical to quantum randomness via quantum chaos	243 On estimating the quantum l_α distance
11:30-11:50	224 Multiparameter quantum metrology with an array of entangled BCEs	293 Test of the physical significance of Bell non-locality	109 Robust catalysis and resource broadcasting: the possible and the impossible
11:50-12:10	38 Nonlinear Heisenberg limit via uncertainty principle in quantum metrology	117 Nonlocality of quantum states can be transitive	278 Surpassing the fundamental limits of distillation with catalysts
12:10-12:30	52 Recovering Heisenberg scaling via autonomous quantum error correction	272 Decoy-state optimal quantum information processing with coherent states	7 Computing the costs of non-local operations on the basis of algebraic geometry

Thursday, August 7, afternoon

	A (Grand Hall)	B (LG-07)	C (LG-08)
14:30-15:30	Plenary: Hoi-Kwong Lo, Recent Progress in Quantum Key Distribution		
15:30-16:00			
16:00-17:00	Plenary: Rotem Arnon, Computational quantum information theory		

Friday, August 8, morning

	A (Grand Hall)	B (CPD-3.04, note the change of room)	C (CPD-3.28, note the change of room)
9:30-10:30	Plenary: Warit Asavanant, Large-scale optical quantum computer in time domain: from academic to industry		
10:30-11:00			
11:00-11:30	282 Entanglement accelerates quantum simulation	59 Quantum advantage over general graphs for LOCAL model in noisy distributed computing	96 Exponential separation between quantum learning with and without purification
11:30-11:50	50 Quantum error mitigation for sampling algorithms	93 Approximate error correction with 1D log-depth circuits	11 General detectability measure
11:50-12:10	259 Noise-Agnostic Unbiased Quantum Error Mitigation for Logical Qubits.	90 Multivariate bicycle codes	12 Heisenberg scaling based on quantum population coding
12:10-12:30	269 Focked-up ZX calculus: picturing continuous variable quantum computation	144 Quantum subspace verification for error correction codes	120 Simultaneous estimation of nonlinear functionals of a quantum state

Friday, August 8, afternoon

	A (Grand Hall)	B (CPD-3.04, note the change of room)	C (CPD-3.28, note the change of room)
14:30-15:30	Plenary: Chaoyang Lu, From Science-for-QC to QC-for-Science		
15:30-16:00			
16:00-16:30	247 Unclonable quantum states are necessary as proofs and advice	260 Exponentially reduced circuit depths in Lindbladian simulation	
16:30-16:50	249 Demonstration of blind quantum computation by classical client and a single quantum server	92 Design nearly optimal quantum algorithm for linear differential equations via Lindbladians	10 Measuring quantum relative entropy with finite size effects
16:50-17:10	91 Symmetric channel verification for purifying noisy quantum channels	46 Non-Haar random circuits form unitary designs as fast as Haar random circuits	179 Nonstabilizerness enhances thrifty shadow estimation
17:10-17:20	Best Posters Award Ceremony		
17:20-17:25	Closing remarks		