

LIST OF POSTERS

BEYONDC CONFERENCE 2022
FRONTIERS OF QUANTUM INFORMATION SCIENCE
4 – 9 SEPTEMBER 2022, VIENNA

POSTER SESSION 1: MONDAY, 5 SEPTEMBER | 16:00-17:30

ID#	Presenter	Title
#1	Michael Antesberger	Causal Process Tomography of a Fiber-Based Quantum SWITCH
#2	Luca Apadula	Relativistic Quantum Reference Frames
#3	Tanmoy Bera	Large flux-mediated coupling in hybrid electromechanical system with a transmon qubit
#4	Konstantin Beyer	Joint measurability in non-equilibrium quantum thermodynamics
#5	Fatemeh Bibak	Dissipative phase transition in optomechanical systems
#6	Martin Bielak	Multiple projection tomography towards minimum-error quantum measurement
#7	Vjosa Blakaj	Transcendental properties of entropy-constrained sets
#8	Matthias Bock	Correlation spectroscopy with multi-qubit-enhanced phase estimation in a planar 91-ion crystal
#9	Julian Bopp	Robust near-unity cavity-to-fiber coupling of light emitted by diamond color centers embedded in 'Sawfish' photonic crystal cavities
#10	Anna Bychek	Superradiant lasing in inhomogeneously broadened ensembles
#11	Gustavo Cañas	Engineering Entangled Photons for Transmission in Ring-Core Optical Fibers
#12	Jose Carrasco	Symmetry-resolved entanglement detection using partial transpose moments
#13	Carlo Cepollaro	Quantum generalisation of Einstein's Equivalence Principle can be verified with entangled clocks as quantum reference frames
#14	Dario Cilluffo	Statistical time-domain characterization of non-periodic optical clocks
#15	Andrea Corazza	Towards cavity-enhanced photon emission from low-noise nitrogen-vacancy centers in diamond
#16	Esther Cruz Rico	Preparation and verification of tensor network states

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#17	Anne-Catherine de la Hamette	Spacetimes in superposition: Extended symmetries of the Klein-Gordon field
#18	Claire Edmunds	Digital Simulation of a Spin-1 Chain
#19	Samuel Elman	Title TBT
#20	Matthias Englbrecht	Party-local Clifford Transformations of stabilizer states
#21	Pau Farrera	Nondestructive detection of photonic qubits
#22	Sergey Fedorov & Peyman Malekzadeh	Progress towards quantum teleportation in an atom-optomechanical system
#23	Michael Fellner	Universal Parity Quantum Computing
#24	Lukas Fiderer	Thermodynamic cost-benefit trade-offs of learning agents
#25	Radim Filip	Quantum non-Gaussian hierarchy for photons and phonons
#26	Matteo Fiscaro	A stable open-access optical microcavity as a platform for quantum acoustics
#27	Fulvio Flamini	Projective simulation based on single-photon quantum walks in linear optical interferometers
#28	Miguel Gallego	Macroscopically nonlocal quantum correlations
#29	Maria Galli	Entanglement between remote ions interfaced with cavities
#30	Shawn Geller	Improving quantum state detection with adaptive sequential observations
#31	Karol Gietka	Exploiting spin-orbit coupled interacting quantum gases to overcome the Heisenberg limit
#32	Guillermo Gonzalez Garcia	Error propagation in NISQ devices for solving classical optimization problems
#33	Andreas Gritsch	Coupling Erbium Dopants to Nanophotonic Silicon Structures
#34	David Kenwothy Gunn	Entanglement and Quantum Information
#35	Samuel Gyger	Strain-Controlled Quantum Dot Fine Structure for Entangled Photon Generation at 1550 nm
#36	Raphael Holzinger	Cooperative subwavelength molecular quantum emitter arrays
#37	Sebastian Horvat	Accessing inaccessible information via quantum indistinguishability
#38	Emanuel Hubenschmid	A complete POVM description of multi-channel quantum electro-optic sampling with monochromatic field modes
#39	Aurelian Isar	Dynamics of Entropy Production Rate and Quantum Correlations in Two Coupled Bosonic Modes Interacting with a Thermal Reservoir
#40	Philipp Jenke	Photon pair generation in ultra-thin films without phase-matching

ID#	Presenter	Title
#41	Sofiene Jerbi	Unifying Quantum Machine Learning Models: Theory and Practical Implications
#42	Viktoria Kabel	Falling through masses in superposition: quantum reference frames for indefinite metrics
#43	Olivier Morin	A one-node quantum repeater
#44	Uros Delic	Tunable dipole-dipole interactions in an array of levitated nanoparticles
#71	Rishabh Sahu	Entangling microwave with optical photons

POSTER SESSION 2: WEDNESDAY, 7 SEPTEMBER | 16:00-17:30

ID#	Presenter	Title
#45	Siddhi Khaire	Microwave single photon source using Landau-Zener transitions
#46	Tristan Kraft	Transformations in quantum networks via local operations assisted by finitely many rounds of classical communication
#47	Tamás Kriváchy	Generative Neural Networks for constructing Local Hidden Variable models and Separable States
#48	Marius Krumm	Overcoming noise in variational quantum computations via superposition of trajectories
#49	Alessandro Laneve	Multipartite Entanglement Distribution via Separable Systems
#50	Marc Langer	Mixed Magic States for Matchgate Computations
#51	Martin Lanthaler	Scalable Set of Reversible Parity Gates for Integer Factorization
#52	Camille Le Calonnec	Floquet theory for a fast and high fidelity parametric-two-qubit gate
#53	Nicky Kai Hong Li	Characterization of state transformations within entanglement classes containing permutation-symmetric states & identification of isolation-free classes
#54	Italo Machuca	Multidimensional entanglement generation with multicore optical fibers
#55	Sourav Majumder	Prospects of sideband cooling of a mechanical resonator using a transmon qubit in c-QED setup
#56	Pooja Malik	Entangling single atoms over 33 km telecom fibre
#57	Daniel Martínez Arias	Certification of a Nonprojective Qudit Measurement using Multiport Beamsplitters
#58	Natalia Masalaeva	Shaping the interatomic interactions in a multimode cavity: from non-rigid supersolid to droplets
#59	Darren Moore	Hierarchy of quantum non-Gaussian conservative motion

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#60	Simon Morelli	Metrology-assisted entanglement distribution in noisy quantum networks
#61	Olivier Morin	A quantum-logic gate on remote matter qubits
#62	Philip Thomas	Multi-photon entangled states from a single atom
#63	Joshua Morris	Solving rank constrained semidefinite programs in polynomial time
#64	Tuomas Ollikainen	Trapping and cooling of large two-dimensional ion crystals in a monolithic Paul trap
#65	Wolfgang Paul	Quantum Hamilton Equations for Nelson's stochastic mechanics: A view on foundations and applications
#66	Damián Pitalúa-García	Testing the nonclassicality of spacetime: What can we learn from Bell-Bose et al.-Marletto-Vedral experiments?
#67	Damián Pitalúa-García	Multiphoton and side-channel attacks in mistrustful quantum cryptography
#68	Damián Pitalúa-García	Practical quantum tokens without quantum memories and experimental tests
#69	Martin Johannes Renner	Simulating qubit correlations with finite communication
#70	Stefan Sack	Avoiding barren plateaus using classical shadows
#72	Benjamin Schiffer	A variational quantum adiabatic algorithm
#73	Esteban Sepúlveda Gómez	Experimental quantum state discrimination using the optimal fixed rate of inconclusive outcomes strategy
#74	Benoit Seron	Multiphoton interference with partially distinguishable photons
#75	Christian Siegle	GKP code stabilization with robust ancilla error suppression
#76	Raffaele Silvestri & Haocun Yu	Towards large-scale entanglement-enhanced interferometry
#77	Kyrylo Simonov	Daemonic ergotropy and non-classical thermalization via quantum switch
#78	Isaac Smith	A Quantum Causal Perspective of Measurement-Based Quantum Computation
#80	Petr Steindl	Artificial quantum states of light from single photons
#81	Hannah Thiel	On-chip time-bin entanglement using Bragg-reflection waveguides as photon-pair sources
#82	Jayameenakshi Venkatraman	Coherent cancellation of tunneling amplitude in a squeezed Kerr oscillator
#83	Michal Vyvlečka	Enhancing quantum cryptography with quantum dot single-photon sources

ID#	Presenter	Title
#84	Rafael Wagner	Inequalities witnessing coherence, nonlocality and contextuality
#85	Zhi-Yuan Wei	Preparation of tensor network states
#86	Ian Yang	Quantum Algorithms with Superconducting Qubits coupled to High Q Coaxial Cavities
#87	Yiru Zhou	A robust atomic qubit encoding for long-distance entanglement distribution
#88	Felix Zilk	A general-purpose photonic one-way quantum computer
#89	Nicolás Medina Sánchez	Jordan-Wigner transformation for Spin 1