Accepted Posters for TQC 2019

Num	Authors	Title
1	Yong-Su Kim, Tanumoy Pramanik, Young-Wook Cho, Sang-Wook Han, Sang-Yun Lee and Sung Moon	Verification of hidden Einstein-Podolsky-Rosen steering using local filtering operations
2	Flavio Baccari, Christian Gogolin, Peter Wittek and Antonio Acin	Verification of Quantum Optimizers
7	Koon Tong Goh, Chithrabhanu Perumangatt, Zhi Xian Lee, Alexander Ling and Valerio Scarani	Device-independent tools can be advantageous also when the experiment is not device-independent
10	Christian Kokail and Rick van Bijnen	Self-Verifying Variational Quantum Simulation of Lattice Models
19	Andras Gilyen and Tongyang Li	Distributional property testing in a quantum world
23	Spencer Breiner, Amir Kalev and Carl Miller	Parallel Self-Testing of the GHZ State with a Proof by Diagrams
27	Amir Kalev, Anastasios Kyrillidis and Norbert Linke	Validating and Certifying Stabilizer States
28	Ignatius William Primaatmaja, Emilien Lavie, Koon Tong Goh, Chao Wang and Charles Ci Wen Lim	Almost-tight and versatile security analysis of measurement-device-independent quantum key distribution
31	Samuele Ferracin, Theodoros Kapourniotis and Animesh Datta	Verifying quantum computations on noisy intermediate-scale quantum devices
32	Emilio Onorati, Albert H. Werner and Jens Eisert	Randomized benchmarking for individual quantum gates
34	Dominik Hangleiter, Martin Kliesch, Jens Eisert and Christian Gogolin	Sample complexity of device-independently certified "quantum supremacy"
35	Jose Lebreuilly	Many-body cat states via spontaneous symmetry breaking
41	Sisi Zhou, Chang-Ling Zou and Liang Jiang	Saturating the quantum Cramer-Rao bound using LOCC
44	Sisi Zhou, Wojciech Gorecki, David Layden, Mengzhen Zhang, John Preskill, Paola Cappellaro, Rafal Demkowicz-Dobrzanski and Liang Jiang	Quantum error correction in quantum metrology
47	Carlos Gonzalez-Guillen, Marius Junge and Ion Nechita	On the spectral gap of random quantum channels
50	Hayata Yamasaki and Mio Murao	One-way and two-way LOCC separation in entanglement cost of one-shot quantum state merging
55	Adam Callison, Nicholas Chancellor, Florian Mintert and Viv Kendon	Finding spin glass ground states using continuous-time quantum walks
56	Sevag Gharibian, Stephen Piddock and Justin Yirka	Oracle complexity classes and local measurements on physical Hamiltonians
59	Nai-Hui Chia, Tongyang Li, Han-Hsuan Lin and Chunhao Wang	Quantum-inspired classical sublinear-time algorithm for solving low-rank semidefinite programming via sampling approaches
62	Clément Meignant, Damian Markham and Frédéric Grosshans	Distributing Graph States Over Arbitrary Quantum Networks
65	Nai-Hui Chia, Sean Hallgren and Fang Song	On Basing One-way Permutations on NP-hard Problems under Quantum Reductions
67	John Martyn and Brian Swingle	Product Spectrum Ansatz and the Simplicity of Thermal States
69	Sarah Brandsen, Mengke Lian, Kevin Stubbs, Narayanan Rengaswamy and Henry Pfister	Adaptive Procedures for Discrimination of Arbitrary Tensor-Product Quantum States
71	Siddhartha Santra, Liang Jiang and Vladimir Malinovsky	Quantum repeater architecture with hierarchically optimized memory buffer times
75	Narayanan Rengaswamy, Robert Calderbank and Henry Pfister	Unifying the Clifford Hierarchy via Symmetric Matrices over Rings
77	Wenlong Ma, Kyungjoo Noh, Philip Reinhold, Serge Rosenblum, Steven Girvin, Robert Schoelkopf and Liang Jiang	Fault-tolerant photon-number selective phase gates in circuit quantum electrodynamics

Num	Authors	Title
81	Trung Can, Narayanan Rengaswamy, Robert Calderbank and Henry Pfister	Kerdock Codes Determine Unitary 2-Designs
86	Mengzhen Zhang and Liang Jiang	Characterization of Clifford perfect tensors
87	Lucas Brady, Aniruddha Bapat and Alexey Gorshkov	QAOA Digitizes an Asymptotic Curve: A Path Sum Approach
90	Changchun Zhong and Liang Jiang	Entanglement of Microwave-Optical Modes in a Strong Coupled Electro-Optomechanical System
91	Xin Wang, Mark Wilde and Yuan Su	Magic measures for quantum states and quantum channels
92	Stefan Krastanov, Sisi Zhou, Steven Flammia and Liang Jiang	Stochastic Estimation of Dynamical Variables
108	Connor Hann, Chang-Ling Zou, Yaxing Zhang, Yiwen Chu, Robert Schoelkopf, Steven Girvin and Liang Jiang	Hardware-efficient quantum random access memory with hybrid quantum acoustic systems
111	Anne Broadbent and Supartha Podder	QMA vs. QCMA via Subset States
113	Andrew Glaudell and Jake Taylor	Optimal normal forms for two-qubit Clifford and Controlled Phase gate circuits
114	Blayney W. Walshe, Lucas J. Mensen, Ben Q. Baragiola and Nicolas C. Menicucci	Robust fault tolerance for continuous-variable cluster states with excess anti-squeezing
119	Nishad Maskara, Abhinav Deshpande, Minh C. Tran, Michael Foss-Feig, Bill Fefferman and Alexey V. Gorshkov	Complexity phase transitions in interacting and long-range bosonic Hamiltonians
122	Brian Coyle, Daniel Mills, Vincent Danos and Elham Kashefi	The Born Supremacy: Quantum Advantage and Training of an Ising Born Machine
123	Theodoros Kapourniotis and Animesh Datta	Nonadaptive fault-tolerant verification of quantum supremacy with noise
125	Maxwell Henderson, Samriddhi Shakya and Tristan Cook	Quanvolutional Neural Networks: Powering Image Recognition with Quantum Circuits
126	Omar Shehab, Isaac Kim, Nhung Nguyen, Kevin Landsman, Cinthia Alderete, Daiwei Zhu, Norbert Linke and Christopher Monroe	On boosting near-term variational quantum algorithms using past causal cones
127	Andrew Guo, Minh Tran, Yuan Su, James R. Garrison, Zachary Eldredge, Michael Foss-Feig, Andrew Childs and Alexey Gorshkov	Locality and digital quantum simulation of power-law interactions
128	Cunlu Zhou and Leonid Faybusovich	Self-Concordance and Matrix Monotonicity with Applications to Quantum Entanglement Problems
129	Andrew Childs and Jin-Peng Liu	Quantum Spectral Methods for Differential Equations
130	Valerio Scarani, Angeline Shu, Yu Cai, Stella Seah and Stefan Nimmrichter	Almost thermal operations: inhomogeneous reservoirs
131	Chiao-Hsuan Wang, José Lebreuilly, Kyungjoo Noh, Steven Girvin and Liang Jiang	Autonomous quantum error correction by engineered dissipation
132	Christian Majenz, Christian Schaffner and Jeroen van Wier	Non-malleability for quantum public-key encryption
133	Seyran Saeedi and Tomasz Arodz	Quantum Sparse Support Vector Machines
134	Albert Schmitz and Sonika Johri	A Quantum Solution for Efficient Use of Symmetries in the Simulation of Many-Body Systems
135	Sourav Kundu and Ben Reichardt	Logical operations on Majorana subsystem codes
136	Mohammad Alhejji and Graeme Smith	Monotonicity Under Local Operations: Linear Entropic Formulas
137	Maicol Ochoa	Heat and energy dissipation in the simultaneous weak measurement of non-commuting observables.
138	Pei-Xin Shen and Mircea Trif	Spin Texture and Entanglement in Topological Spin Josephson Junctions