

Aug. 26

Student	Poster Number	Paper ID	Title	Authors
	1	15	Evidence-Based Quantum-Information Processing: Applications on Photonic Quantum Systems	Yong Siah Teo, Saurabh Uday Shringarpure, Hyunseok Jeong, Nidhin Prasannan, Benjamin Brecht, Christine Silberhorn, Michael Evans, Dmitri Mogilevtsev and Luis Lorenzo Sanchez-Soto
✓	2	32	On the generic increase of observational entropy in isolated systems	Teruaki Nagasawa, Kohtaro Kato, Eyuri Wakakuwa and Francesco Buscemi
	3	38	Fundamental limits of metrology at thermal equilibrium	Paolo Abiuso, Pavel Sekatski, John Calsamiglia and Martí Perarnau-Llobet
	4	79	Conservation of coherence and entanglement under quantum reference frame transformations	Paweł Cieśliński
✓	5	86	Exploring the hierarchy of steering measurement settings of qubit-pair states via kernel-based quantum learning model	Zheng-Lin Tsai and Hong-Bin Chen
	6	94	Nonlocality in Networks Assisted by Neural Networks and Rigidity	Tamás Kriváchy
✓	7	116	Magic of quantum hypergraph states	Junjie Chen, Yuxuan Yan and You Zhou
✓	8	121	Source-Replacement Model for Phase-Matching Quantum Key Distribution	Yizhi Huang, Zhenyu Du and Xiongfeng Ma
✓	9	153	Developing and evaluating a quantum annealing simulator using QuTiP	Akimasa Saito and Masashi Imai
	10	154	Second Law of Entanglement Manipulation with a Battery	Ray Ganardi, Tulja Varun Kondra, Nelly H.Y. Ng and Alexander Streltsov
✓	11	155	A new approach to Bayesian lower bounds for quantum state estimation	Jianchao Zhang and Jun Suzuki
✓	12	156	Error and Disturbance as Irreversibility with Applications: Unified Definition, Wigner—Araki—Yanase Theorem and Out-of-Time-Order Correlator	Haruki Emori and Hiroyasu Tajima
✓	13	158	Hybrid squeezed cat code with universal gate set for easy implementation by optics	Shohei Kiryu, Atsushi Okamoto and Akihisa Tomita
✓	14	160	On computational complexity and average-case hardness of shallow-depth boson sampling	Byeongseon Go, Changhun Oh and Hyunseok Jeong
✓	15	161	Estimating the non-Markovianity with kernel-based quantum machine learning model	Chuan-Chi Huang and Hong-Bin Chen
	16	163	Exact and local compression of quantum bipartite states	Kohtaro Kato
✓	17	164	Estimating the nonclassicality of the free induction decay of NV centers with kernel-based quantum machine learning model	Nien Ting Ko and Hong Bin Chen
	18	167	Direct and loss tolerant GHZ states generation protocol for quantum networks	Wojciech Roga, Hikaru Shimizu, David Elkouss and Masahiro Takeoka
✓	19	171	Broadband sensitivity enhancement for gravitational-wave detection via quantum teleportation	Yohei Nishino
✓	20	216	Constructing the joint quasi-distribution representations for quantum states with deep generate models	Yu Chen Lee, Chi Hua Yu and Hong-Bin Chen
	21	218	Experimental device-independent certification of GHZ states	Mariana Schmid, Michael Antesberger, Huan Cao, Wen-Hao Zhang, Borivoje Dakic, Lee Rozema and Philip Walther
	22	221	Bell Inequalities for arbitrary qubit-qudit systems	Jesus M Moreno, J. Alberto Casas and Alexander Bernal

	23	236	Photonic quantum-to-quantum Bernoulli factory	Francesco Hoch
✓	24	252	Multiplexed Quantum Communication with Surface and Hypergraph Product Codes	Shin Nishio, Nicholas Connolly, Nicolò Lo Piparo, William Munro, Thomas Scruby and Kae Nemoto
	25	254	First-quantized adiabatic time evolution for quantum chemistry	Yusuke Nishiyama, Hirofumi Nishi, Yannick Couzinie, Taichi Kosugi and Yu-Ichiro Matsushita
	26	258	Secure Two-Party Computation using Photonic Graph States	Eric Chitambar, Maxwell Gold, Jianlong Lin and Elizabeth Goldschmidt
✓	27	259	Concatenate codes, save qubits	Satoshi Yoshida, Shiro Tamiya and Hayata Yamasaki
	28	264	Exponential quantum advantage for non-Hermitian eigenproblems	Xiao-Ming Zhang, Yukun Zhang, Wenhao He and Xiao Yuan
✓	29	302	Optimal Ternary Signal Constellation and A Priori Probabilities Maximizing Capacity under Energy Constraints	Shion Kitamura, Tiancheng Wang, Souichi Takahira and Tsuyoshi Usuda
✓	30	308	Error interference in quantum simulation	Boyang Chen, Jue Xu, Xiao Yuan and Qi Zhao
	31	314	Improved recursive QAOA for solving MAX-CUT on complete bipartite graphs	Eunok Bae, Hyukjoon Kwon and Soojoon Lee
	32	315	Quantum-inspired algorithms for approximating matrix functions	Youngrong Lim and Changhun Oh
✓	33	318	Strategic Code: A Unified Spatio-Temporal Framework for Quantum Error-Correction	Andrew Tanggara, Mile Gu and Kishor Bharti
	34	319	The i.i.d. State Convertibility in the Resource Theory of Asymmetry for Finite and Lie Groups	Tomohiro Shitara and Hiroyasu Tajima
	35	321	Digital Quantum Simulation of Quench-Induced State Transition and the Spectroscopy of Lattice Field Theory	Dongwook Ghim and Masazumi Honda
	36	325	Uncorrectable error injection based fault-tolerant and secure quantum state transmission	Ilkwon Sohn, Boseon Kim, Kwangil Bae, Wooyeong Song, Chankyun Lee, Kabgyun Jeong and Wonhyuk Lee
✓	37	326	Corrupted sensing quantum state tomography	Mengru Ma and Jiangwei Shang
✓	38	328	Locking and unlocking quantum nonlocality in quantum state discrimination by postmeasurement information	Jinhyeok Heo, Donghoon Ha and Jeong San Kim
✓	39	329	Exploring entanglement spectrum and phase diagram in multi-electron quantum dot chains	Guanjie He and Xin Wang
	40	330	Estimation of photon number distribution of photon-pair sources	Sang Min Lee
✓	41	331	Harvesting hardware power to foster variational quantum algorithms	Daniil Rabinovich, Soumik Adhikary, Luis Ernesto Campos Espinoza, Alexey Uvarov, Olga Lakhmanskaya and Kirill Lakhmanskiy
✓	42	333	How to Certify Deletion with Constant-Length Verification Key	Duo Xu
✓	43	335	Cryogenic reconfigurable photonics integrated with SNSPDs for energy-time entanglement distribution	Zhiyun Shu, Hao Li and Lixing You
	44	336	Measurement-Device-Independent Detection of Beyond-Quantum State	Baichu Yu and Masahito Hayashi
	45	337	Simulating conical intersections with multiconfigurational methods on a quantum processor	Xiaoxia Cai
	46	338	Tunable Coupling Architectures Using Bypass Capacitance for Large-Scale Multiple Qubits Scheme	Zhong-Cheng Xiang, Gui-Han Liang and Dong-Ning Zheng
	47	339	Revealing crosstalk errors of information scrambling in quantum devices	Hsiang-Wei Huang, Yi-Te Huang, Jhen-Dong Lin and Yueh-Nan Chen
	48	340	Applicability and Limitations of Quantum Circuit Cutting with Classical Computers: Order Estimation	Mitsuhiro Matsumoto, Junya Nakamura, Hiroki Kuji, Takaharu Yoshida and Takahiko Satoh

	49	341	A Novel Approach for Quantum Simulation Software Framework	Kisung Jin, Jinho On and Gyu-II Cha
✓	50	342	Mercer decomposition of quantum kernels and entangled tensor kernels	Seongwook Shin, Ryan Sweke and Hyunseok Jeong
	51	343	Characterizing the entanglement dimensionality vector in multipartite quantum states	Shuheng Liu, Qiongyi He, Marcus Huber, Matteo Fadel, Otfried Gühne and Giuseppe Vitagliano
	52	344	Bayesian retrodiction of quantum supermaps	Ge Bai
	53	346	Angle Finding of Quantum Signal Processing for Matrix Inversion	Kenzo Makino, Hiroaki Murakami, Yasunori Lee, Keita Kanno, Kenji Minefuji and Tomonori Fukuta
✓	54	349	Directly Estimating Mixed-State Entanglement with Bell Measurement Assistance	Gongchu Li, Geng Chen, Chuanfeng Li and You Zhou
	55	350	Optimal demonstration of generalized quantum contextuality	Soumyabrata Hazra, Subhankar Bera, Anubhav Chaturvedi, Debashis Saha and Archan S. Majumdar
✓	56	352	Efficient Parameter-Shift Rule Implementation for Computing Gradient on Quantum Simulators	Tuan Hai Vu, Vu Trung Duong Le, Hoai Luan Pham and Yasuhiko Nakashima
✓	57	353	Measurement-Induced Magic Resources	Gongchu Li, Geng Chen, Chuanfeng Li, You Zhou and Alioscia Hamma
	58	356	Realization of a Noisy-resilient Wavefunction Ansatz on a Cloud Based Quantum Hardware	Xiongzhi Zeng and Huili Zhang
✓	59	357	Asymptotic teleportation scheme bridging between standard and port-based teleportation	Haeum Kim and Kabgyun Jeong
✓	60	359	High-dimensional Reconciliation for Continuous-Variable Quantum Key Distribution over a Free-Space Optical Channel	Kadir Gumus, Joao dos Reis Frazao, Vincent van Vliet, Sjoerd van der Heide, Menno van den Hout, Gabriele Liga, Yunus Can Gultekin, Aaron Albores-Mejia, Thomas Bradley, Alex Alvarado and Chigo Okonkwo
✓	61	360	Leveraging Different Boolean Function Decompositions to Reduce T-Count in LUT-based Quantum Circuit Synthesis	David Clarino, Naoya Asada, Atsushi Matsuo and Shigeru Yamashita
✓	62	363	Expressivity of deterministic quantum computation with one qubit	Yujin Kim and Daniel Kyungdeock Park
✓	63	364	Quantum frequency conversion experiment with a PPLN waveguide resonator	Shoichi Murakami, Toshiki Kobayashi, Shigehito Miki, Hiroataka Terai, Tsuyoshi Kodama, Tsuneaki Sawaya, Akihiko Ohtomo, Hideki Shimoi, Takashi Yamamoto and Rikizo Ikuta
✓	64	366	Zero-Noise Extrapolation with Indirect-Control System	Arijit Das and Masaki Owari
✓	65	367	Reducing T Gate Count by Combining Two Types of MCT Gate Decomposition Techniques	Taketo Yamaguchi and Shigeru Yamashita
	66	368	Error mitigated digital quantum simulation with auxiliary parameter	Sangjin Lee, Seung-Woo Lee and Youngseok Kim
✓	67	370	Reducing Quantum Cost by Decomposing Two MCT Gates as a Pair	Takaki Hasegawa and Shigeru Yamashita
	68	372	Rydberg-EIT based electrometry in a vapor cell	In-Ho Bae, Jisoo Hwang, Jae-Keun Yoo and Heejin Lim
	69	373	Demonstration of Quantum Sparse Matrix Inversion based on Quantum Singular Value Transformation	Yasunori Lee, Keita Kanno, Kenzo Makino and Hiroaki Murakami
✓	70	374	NNA Circuit Synthesis Method by SMT Solver Considering Bit Reduction	Tatsuya Nakao, Shigeru Yamashita and Kyouhei Seino
	71	389	An Efficient Erasure Decoder and Quantum Multiplexing using Hypergraph Product Codes	Nicholas Connolly, Shin Nishio, Vivien Londe, Nicolò Lo Piparo, William J. Munro, Thomas R. Scruby, Anthony Leverrier, Nicolas Delfosse and Kae Nemoto

✓	72	412	Quantifying Operational Costs of Quantum Internet Applications Through Blind Variational Quantum Computing	Masaki Nagai, Hideaki Kawaguchi and Takahiko Satoh
	73	414	Quantifying non-Gaussianity of a quantum state by the negative entropy of quadrature distributions	Jiyong Park, Jaehak Lee, Kyunghyun Baek and Hyunchul Nha
✓	74	27	Limitations of Classically-Simulable Measurements for Quantum State Discrimination	Chengkai Zhu, Zhiping Liu, Chenghong Zhu and Xin Wang