AQIS 2026 Poster Schedule - Monday

Poster Session I - August 24 (Mon) 16:30-18:30

Poster No.	No.	Title	Authors
P1-001	8	Factorizability of optimal quantum sequence discrimination under maximum-confidence measurements	Donghoon Ha and Jeong San Kim
P1-002	10	Cancelled	Cancelled
P1-003	14	Thermodynamic work capacity of quantum information processing	Himanshu Badhani and Siddhartha Das
P1-004	23	Asymptotically optimal unitary estimation in SU(3) by the analysis of graph Laplacian	Satoshi Yoshida, Hironobu Yoshida and Mio Murao
P1-005	24	Complementing Quantum Error Correction in Quantum Metrology via Swap Test	Xiaodie Lin, Linxuan Li and Haidong Yuan
P1-006	33	Quantum-Centric Krylov Reduction for PDE-Induced Sparse Linear Systems	Dongyun Chung and Jung-Il Choi
P1-007	37	Accessible Quantum Correlations Under Complexity Constraints	Alvaro Yángüez, Noam Avidan, Jan Kochanowski and Thomas A. Hahn
P1-008	40	A measurement-driven quantum algorithm for SAT: Performance guarantees via spectral gaps and measurement parallelization	Franz J. Schreiber, Maximilian J. Kramer, Alexander Nietner and Jens Eisert
P1-009	43	Probabilistic and approximate universal quantum purification machines	Zoe Garcia del Toro and Jessica Bavaresco
P1-010	48	Quantum Magic in early FTQC: From Diagonal Clifford Hierarchy No-Go Theorems to Architecture Design Blueprints	Hsueh Hao Lu, Yasunari Suzuki, Yasunobu Nakamura and En-Jui Kuo
P1-011	50	Performance Evaluation of Quantum Error Correction Schemes in Dual Ytterbium Systems	Fumiyoshi Kobayashi, Toshi Kusano, Nicholas Fazio and Yuma Nakamura
P1-012	51	Exponential Lindbladian fast forwarding and exponential amplification of certain Gibbs state properties	Zhongxia Shang, Dong An and Changpeng Shao
P1-013	69	Entanglement recovery by reversing the effect of noise in quantum repeater	Sewon Jeong, Shrobna Bagchi, Jaehak Lee, Hyang-Tag Lim, Yong-Su Kim, Taeyoung Choi and Seung-Woo Lee
P1-014	71	Orbit Inclination Optimization for Maximizing Daily Secret Key Throughput in Satellite Quantum Key Distribution	Hanik Kim and Jasminder Sidhu
P1-015	73	Towards fault-tolerance with universal phase-error-transparent gates for high-spin cat codes	Kelvin Onggadinata, Si Yan Koh, Arghya Maity, Kay Jin Lim, Kuan Eng Johnson Goh, Bent Weber, Hui Khoon Ng and Teck Seng Koh
P1-016	79	Semi-device-independent self-testing of unitary operations	Rajdeep Paul, Prabuddha Roy and Alok Pan
P1-017	80	Performance analysis of cat and GKP breeding protocols with squeezed single-photon input	Yoonha Kim and Jaehak Lee
P1-018	88	No fundamental limit to certifying quantum cause-effect mechanisms	Xiangjing Liu, Mile Gu, Oscar Dahlsten, Graeme Berk, Andres Ducuara and Yuxuan Qu
P1-019	93	Hong-Ou-Mandel test to verify indistinguishability of the states emitted from a quantum key distribution transmitter implementing decoy Bennett-Brassard 1984 protocol	Shunya Tajima, Akihisa Tomita and Atsushi Okamoto
P1-020	98	Quantifying mixed-state entanglement via partial transpose and realignment moments	Poetri Sonya Tarabunga and Tobias Haug
P1-021	100	Uniform and Long-Lived Coherent Spin States in Thermal Atomic Ensembles	Bowen Liu, Xiangyang Zhou and Zhen Li
P1-022	102	Scalable self-testing of generic multipartite quantum states	Jinchang Liu, Elias X. Huber, Zhenyu Du, Xingjian Zhang and Xiongfeng Ma
P1-023	105	Learning the hierarchy of steering measurement settings of qubit-pair states with kernel-based quantum models	Zheng-Lin Tsai, Hong-Ming Wang and Hong-Bin Chen
P1-024	106	Measurement-induced non-commutativity in adaptive fermionic linear optics	Chenfeng Cao, Yifan Tang and Jens Eisert
P1-025	107	Creating a spatial quantum superposition in an electrically trapped nanoparticle	Martine Schut, Jackson Tiong and Valerio Scarani
P1-026	112	Simultaneous Estimation of Partial-Transpose Moments with Active Memory Independent of the Moment Order	Junxiang Huang, Xiaoyang Wang, Xiao Yuan and Yunkun Zhang
P1-027	126	Normalizing Flows for Classical Simulation of Quantum Circuits in Phase Space	Edward Jiang, Timothy Heightman and Marcin Plodzien
P1-028	133	Probing Quantum States Over Spacetime Through Interferometry	Seok Hyung Lie and Hyukjoon Kwon
P1-029	134	An almost complete picture of quantum state discrimination with composite correlated hypotheses	Kun Fang and Masahito Hayashi
P1-030	136	A extension of VQA for Second-Order Linear Differential Equations with Constant Coefficients	Koki Mano, Tomohiro Sogabe, Kota Takeda and Shao-Liang Zhang
P1-031	138	Invested and Potential Magic Resources in Measurement-Based Quantum Computation	Gongchu Li and Geng Chen
P1-032	142	Even More Efficient Soft-Output Decoding with Extra-Cluster Growth and Early Stopping	Kaito Kishi, Riki Toshio, Jun Fujisaki, Hirotaka Oshima, Shintaro Sato and Keisuke Fujii
P1-033	143	Quantum Advantage in Locally Differentially Private Hypothesis Testing	Seung-Hyun Nam, Hyun-Young Park, Joonwoo Bae and Si-Hyeon Lee
P1-034	144	Decoder-Consistent Hamiltonians for POVM-Based Quantum Relaxations	Takayuki Suzuki
P1-035	146	Adiabatic Error Cancellation in Berry Phase Estimation	Chusei Kiumi
P1-036	147	Operational interpretation of the reverse sandwiched Renyi divergences in composite quantum hypothesis testing	Masahito Hayashi and Kun Fang
P1-037	149	Practical Quantum Broadcasting	Ximing Wang and Yunlong Xiao
P1-038	157	Programmable Open Quantum Systems	Mingrui Jing, Mengbo Guo, Lin Zhu, Hongshun Yao and Xin Wang
P1-039	160	Subnormalization Optimization for Value-Centric Block Encodings	Hiroaki Murakami, Kenzo Makino, Yasunori Lee and Tomonori Fukuta
P1-040	163	Optimal Shadow Estimation with Minimal Measurement Settings	Zhiyao Yang, Datong Chen and Huangjun Zhu

Poster No.	No.	Title	Authors
P1-041	169	Provable Quantum Advantage for Dynamical Phase Transition	Jue Xu, Xiao Yuan and Qi Zhao
P1-042	173	Device-independent quantification of entangled measurements	Muhammad Amru Al-Amin and Shin-Liang Chen
P1-043	174	Exponential Speed-ups for Structured Goemans-Williamson relaxations via Quantum Gibbs States and Pauli Sparsity	Haomu Yuan, Daniel Stilck França, Ilia Luchnikov, Egor Tiunov, Tobias Haug and Leandro Aolita
P1-044	175	Dynamic Population Suppression for Sensing and Entangling Gates	Sebastian Carrasco, Jabir Chathanathil, Svetlana Malinovskaya, Ignacio Sola and Vladimir Malinovsky
P1-045	187	Distributively Encoded Quantum Sensors for Chip-level Catastrophic Errors in Modular Quantum Processors	Xiu-Hao Deng, Song Zhang, Guixu Xie and Jinghan Lu
P1-046	189	Optimised finite key in satellite up-link quantum communication with entangled photons	Thomas Jaeken, Faris Redza, Daniel Oi, Alessandro Fedrizzi and Jasminder Sidhu
P1-047	191	Quantum channel discrimination against jammers	Kun Fang and Michael Xuan Cao
P1-048	193	Quantum statistical functions	Haruki Emori
P1-049	195	Stabilizer Rényi Entropy of 3-Uniform Hypergraph States	Daichi Kagamihara and Shunji Tsuchiya
P1-050	203	Single-letter Chain Rules for Quantum Relative Entropy	Matt Hoogsteder-Riera and Giulio Gasbarri
P1-051	212	Complexity phase transition for continuous-variable cluster state	Byeongseon Go, Hyunseok Jeong and Changhun Oh
P1-052	214	On the hardness of noisy random circuit sampling	Byeongseon Go, Changhun Oh and Hyunseok Jeong
P1-053	217	Invariant Measures and Weak-Magic-Injection Asymptotics in Random Monitored Quantum Circuits	Guocheng Zhen, Xuanrong Yang, Chengkai Zhu, Ranyiliu Chen and Xin Wang
P1-054	220	Dirac Hamiltonian Simulation in Circuit QED System with Multi-mode Cavity	Jiwon Kang, Jiuk Lee and Eunseong Kim
P1-055	225	No Finite Classical Communication Suffices to Simulate All Quantum Correlations	Kai-Siang Chen, Bo-An Tsai, Gelo Noel Tabia, Swati Kumari and Yeong-Cherng Liang
P1-056	228	Quantum-Enhanced Multiparameter Metrology in Hamiltonians with Level Crossing	Ryo Tatsumi, Binho Le and Hiroaki Matsueda
P1-057	230	Scaling-optimal purification of noisy qubit unitary channels	Ryotaro Niwa, Satoshi Yoshida, Koki Ono, Zhaoyi Li, Ryuji Takagi and Mio Murao
P1-058	232	Rottnest: Utility-Scale Fault-Tolerant Quantum Compilation	Alan Robertson, Madhav K. Vijayan, Haowen Gao, Tyson Thomas, Thinh P. Le, Samuel J. Elman and Simon J. Devitt
P1-059	236	Hamilton Extension: Emergence and Recovery of Logical Kochen--Specker Contextuality	Jayashree Karmakar, Biswadeep Chatterjee, Anushko Chattopadhyay, Rafiuddin Gazi, Kunika Agarwal, Ananya Chakraborty, Snehasish Roy Chowdhury, Subhendu B. Ghosh, Manik Banik and Amit Mukherjee
P1-060	240	Entanglement cost of bipartite quantum channel discrimination under positive partial transpose operations	Chengkai Zhu, Shuyu He, Gereon Koßmann and Xin Wang
P1-061	242	A Nonstabilizerness Resource Law for Universal Quantum State Purification	Keming He, Enji Xiong and Xin Wang
P1-062	246	Quantum Error Detection for Heisenberg-Limited Metrology	Carlos Ortiz Marrero, Nathan Wiebe and Rui Jie Tang
P1-063	251	Bell Nonlocality from Compatibility of Entanglement-Breaking Channels	Gelo Noel Tabia, Chung-Yun Hsieh and Min-Hsiu Hsieh
P1-064	255	Frequency Estimation by Frequency Jumps	Simone Cavazzoni
P1-065	256	Multipartite Hardy Paradox Unlocks Device-Independent Key Sharing	Ranendu Adhikary
P1-066	257	Conditions for implementing projective measurements through continuous monitoring	Therese Karmstrand, Franco Nori and Clemens Gneiting
P1-067	265	A Quantum-Inspired Dequantization Method for Diagonally Weighted Matrix Functions: Application to Learning with Optimized Random Features	Natsuto Isogai, Mio Murao and Hayata Yamasaki
P1-068	271	Towards Optimal Quantum Estimators for State Frame Potential	Jinge Bao, Wang Fang, Yoshifumi Nakata and Qisheng Wang
P1-069	275	Answering Counting Queries with Differential Privacy on a Quantum Computer	Arghya Mukherjee, Hassan Asghar and Gavin Brennen
P1-070	276	Third-Order Local Randomized Measurements for Entanglement Detection and Certification	Gniewomir Sarbicki
P1-071	283	Driving-Controlled Frequency-Selectable Quantum Light Sources in Nonlinear Coupled Cavities	Xue Han, Je-Hyung Kim and Shou Zhang
P1-072	286	Space-efficient Algorithms for the Abelian Hidden Subgroup Problems and Black-box Group Primitives	Yinan Li and Junrong Luo
P1-073	290	Comparing and learning figures of merit for quantum circuit compilation	Harshdeep Singh, Marvin Richter, Mats Granath and Anton Frisk Kockum
P1-074	291	Maximum-Likelihood Quantum Tomography beyond Petz Recovery	Sebastian Murk, Ian Tan, Fabian Muller and Dominik Safranek
P1-075	297	Efficient graph-diagonal characterization of noisy states distributed over quantum networks via Bell sampling	Zherui Jerry Wang, Joshua Carlo Casapao, Naphan Benchasattabuse, Ananda Gopal Maity, Jordi Tura, Akihito Soeda, Michal Hajdušek, Rodney Van Meter and David Elkouss
P1-076	307	Quantifying the Expressive Advantage of Non-Gaussian Bosonic Born Machines	Hodong Lee and Changhun Oh
P1-077	309	Computational Cryptography from Pseudoentanglement	Ilia Ryzov, Manuel Goulão, Faedi Loulidi and David Elkouss
P1-078	315	Generalized TE-PAI: Trade-offs Between Approximation Error and Sampling Overhead	Yuto Morohoshi, Chusei Kiumi and Kosuke Mitarai
P1-079	316	Entanglement-assisted circuit knitting: Distributed quantum computing using limited entanglement resources	Shao-Hua Hu, Po-Sung Liu and Jun-Yi Wu
P1-080	318	A quantum analogue of convex optimization	Eunou Lee
P1-081	323	LLM-Guided Evolutionary Search for Algebraic T-Count Optimization	Daniil Fisher, Valentin Khrulkov, Mikhail Saygin, Ivan Oseledets and Stanislav Straupe
P1-082	326	Fermi-Dirac machines as quantizations of neurons	Alexander He, Mark Wilde and Nana Liu

Poster No.	No.	Title	Authors
P1-083	330	Bringing Quantum Nuclei onto Quantum Hardware: Error-Mitigated Multicomponent Simulations Beyond the Born-Oppenheimer Approximation	Delmar Cabral, Brandon Allen, Fabijan Pavosevic, Sharon Hammes-Schiffer, Pablo Diez Valle, Jack S. Baker, Gaurav Saxena, Thi Ha Kyaw and Victor Batista
P1-084	332	A Representation-Theoretic Bridge Between First and Second Quantization: Universal State Preparation and Coherent Conversion	Jack Baker, Gaurav Saxena and Thi Ha Kyaw
P1-085	333	From Wavefunction Singularity to Operator Conditioning: Transcorrelated Hamiltonians on Quantum Computers	Cheng-Lin Hong, Emiel Koridon, Paul K. Faehrmann, Stefano Polla and Werner Dobrautz
P1-086	335	Magical Thermodynamics: Stabilizer Partition function for efficient classification and quantification of magic states	William Salazar, Gaurav Saxena, Jack S. Baker, Leong Chuan Kwek and Thi Ha Kyaw
P1-087	338	Quantumly impossible correlations in prepare-and-measure experiments	Sujan V.K and Ravi Kunjwal
P1-088	339	Joint Realizability Tradeoffs Bounded by Quantum Channel Incompatibility	Shintaro Minagawa, Ryo Takakura and Kensei Torii
P1-089	345	Asynchronous Entanglement Swapping with Narrowband Integrated Photon-Pair Sources	Mingsong Wu, Leili Esmaeilifar, Tobias Kippenberg, Rob Thew and Tiff Brydges
P1-090	350	On the query complexity of unitary channel certification	Sangwoo Jeon and Changhun Oh
P1-091	352	Fisher information based lower bounds on the cost of quantum phase estimation	Ryosuke Kimura and Kosuke Mitarai
P1-092	368	Toward Ultra-low Exposure X-ray Computed Tomography Using Entanglement	Kaisei Suzuki, Shion Kitamura, Tiancheng Wang, Asuka Ohashi and Tsuyoshi Sasaki Usuda
P1-093	369	Quantum Process Tensors, Combs and Link Product on Infinite Dimensions	Amalina Lai, Graeme Berk, Minjeong Song and Mile Gu
P1-094	371	Cryptographic Drift Observatory: Runtime Integrity Monitoring using AI and Quantum-Inspired Behavioral Models	Vijaykrishna Somaraju
P1-095	374	Pitfalls when tackling the exponential concentration of parameterized quantum models	Supanut Thanasilp, Zoë Holmes, Reyhaneh Aghaei Saem and Behrang Tafreshi
P1-096	375	Instability as a Quantum Resource	Goni Yoeli
P1-097	377	Verifiable blind probabilistic error cancellation	Bo Yang, Elham Kashefi and Harold Ollivier
P1-098	383	Entanglement of flower states	Samrat Sen and Ludovico Lami
P1-099	387	Limiting one-way distillable key via privacy testing of extendible states	Vishal Singh, Mark Wilde, Aby Philip and Karol Horodecki
P1-100	401	Hybrid Physical/Logical Zero-Noise Extrapolation with Limited Logical Executions	Danila Babukhin and Walter Pogosov
P1-101	403	Quasi-Ellipsoidal Magnetic Shielding for Compact SERF Quantum Sensors under Dimensional Constraints	Shaowei Lv
P1-102	405	Experimental Demonstration of Error Suppression in Repetition Codes Using iSWAP Gates	Hansol Kim, Doha Kim and Younghun Kwon
P1-103	409	Resource Efficient Link-Set Configuration (RELiC)-Based Entanglement Routing	Jayeong Kim, Hojae Lee, Jonghyun Lee and Sangrim Lee
P1-104	414	Low-cost framework for suppressing circuit-noise by single-qubit gates on a superconducting quantum processor	Hyunseong Jang
P1-105	415	Intertwining Markov Processes via Matrix Product Operators	Jimin Li
P1-106	416	Photon loss tolerable Measurement-Based Entanglement Purification Protocol with Quantum Error Correcting Codes	Woowon Seo and Seung-woo Lee
P1-107	421	Symmetric Measurement Noise Can Make Hybrid Quantum-Classical Computing Robust	Dongwon Lee, Hyeokjea Kwon, Jaemin Kim and Joonwoo Bae
P1-108	425	Topological resilience of optical skyrmions in local decoherence	Liwen Wang
P1-109	426	Nonclassical pure dephasing dynamics cannot be deterministically eliminated with spin echo	Wei-Ming Huang, Chuan-Zhe Yao, Hsiao-Nan Lu, Ling-Chia Lo and Hong-Bin Chen
P1-110	427	Multiparameter Estimation in Quantum Collision Models	Po-Sung Liu and Yink-Loong Len
P1-111	428	Quantum Measurement Retrodiction And Inferential Asymmetry	Jiaxi Kuang, Francesco Buscemi and Kensei Torii
P1-112	430	Predicting Quantum Nonclassicality of Quantum States Using Quantum Neural Networks	Li-An Lo, Tai-Yue Li and Hong-Bin Chen
P1-113	433	Tailored encoded fusion for loss- and distinguishability-tolerance	Kwang-Jun Choi and Seung-Woo Lee
P1-114	447	Information causality beyond the random access code model	Baichu Yu and Valerio Scarani
P1-115	450	Robustness of Thrifty Shadow Estimation under Calibrated Gate-Independent Noise	Yingying Hu and Xutao Yu
P1-116	451	Exploration of chemical reaction pathways by quantum walk	Kazuki Tsuoka, Takanori Nishi and Kaoru Yamanouchi
P1-117	452	Malignant Set Analysis of Fault-Tolerance Thresholds in 2D Topological Codes	Yongsoo Hwang
P1-118	454	Entanglement-Optimal Distributed Implementation of Bipartite Clifford Unitaries with Constant Space Overhead	Kosuke Matsui, Jun-Yi Wu, Min-Hsiu Hsieh and Mio Murao
P1-119	455	Outcome Exclusion: Toward a Resource Theory of Rank-Deficient POVMs	Kensei Torii, Jiaxi Kuang and Francesco Buscemi
P1-120	459	Transient Entanglement Generation in Driven Chiral Networks Beyond the Secular Approximation	Yan Xi Foo, Kian Hwee Lim, Jia-Bin You, Leong Chuan Kwek and Davit Aghamalyan
P1-121	462	Measurement-Based MCT Gate Decomposition with Reduced T-depth under Clean-Ancilla Constraint	Takuma Kumamoto, Zanhe Qi, Atsudhi Matsuo and Shigeru Yamashita
P1-122	464	Quantum Spectral Anomaly Detection	Yewei Yuan, Michele Minervini, Mark Wilde and Nana Liu
P1-123	467	Semi-device-independently quantifying quantum memories of non-entanglement breaking channels	Chan-Ching Lien and Shin-Liang Chen
P1-124	469	Holographic Quantum Recurrent Neural Networks for Single-Shot Generative Modeling	Jiwon Choi and Chae-Yeun Park
P1-125	470	Discriminating quantum and beyond-quantum compositions in a communication game	Akarshit Baranwal
P1-126	477	Comparative Profiling of Quantum Linear Solvers and Performance Enhancement via Algorithm-Specific Configuration Recovery	Chanwoo Kim, Soomin Moon, Eunji Park and Kijoon Lee
P1-127	479	Machine-Learning-Based SAT Instance Classification for Hybrid Quantum-Classical Computing	Jinrui Zhang, Zanhe Qi and Shigeru Yamashita
P1-128	481	Quantum Circuit Representation of Combinatorial Matrix Functions	Minhyeok Kang, Gwonhak Lee, Youngrong Lim and Joonsuk Huh
P1-129	488	Krylov-based Quantum Sampling for Combinatorial Optimization	Changjae Im and Daniel K. Park

Poster No.	No.	Title	Authors
P1-130	497	Quantum Encoding and Fixed Reservoirs for Robust 2D Classification	Ayoub Rhim, Akitada Sakurai and Kae Nemoto
P1-131	500	The effects of anti-particles on the relativistic CHSH inequality and violation recovery by optimal measurements	Takehiro Tsurumi and Jun Suzuki
P1-132	504	Evaluating Hardware-Aware Circuit Optimization and Active Error Mitigation on Quantum Latin Squares	Abdul Fatah, Ian McLoughlin and Saim Ghafoor
P1-133	507	Resource-Adaptive Teleportation Under Imperfect Entanglement: A Code-Puncturing Framework	Mahmoud Saad Abouamer, Jaron Skovsted Gundersen, Søren Pilegaard Rasmussen, Jaemin Kim and Petar Popovski
P1-134	509	Tensor network based quantum circuit synthesis for two-dimensional many-body ground-state preparation	Ryo Watanabe and Keisuke Fujii
P1-135	510	On a Calculation of the Range Resolution in Quantum Ranging using Quasi-Bell States	Genichiro Ozeki, Shogo Usami and Souichi Takahira
P1-136	515	Reduction of Inner Product between Two Quantum States by an Atomic Dispersive QND	Sota Sakura, Sota Noda, Shion Kitamura, Tiancheng Wang and Tsuyoshi Sasaki Usuda
P1-137	517	Proof-of-Concept of a quantum receiver approaching the Helstrom bound using a quantum computer	So Miyasato, Shinya Yamauchi, Shion Kitamura, Tiancheng Wang, Asuka Ohashi and Tsuyoshi Sasaki Usuda
P1-138	518	Relationship between the channel matrix and the weighted gram matrix for BWSRM	Takuya Hirota, Shion Kitamura, Tiancheng Wang, Shogo Usami, Souichi Takahira and Tsuyoshi Sasaki Usuda
P1-139	519	Reliability and Optimal Distribution Trends of an Improved Nair State for 3PSK Asymmetric Quantum Communication in an Attenuated Environment	Hidetoshi Demise, Tiancheng Wang, Shogo Usami, Souichi Takahira and Tsuyoshi Sasaki Usuda