IEEE Quantum Week 2025
Accepted QML Technical Papers

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1	153	Marco Wiedmann, Maniraman Periyasamy and Daniel David Scherer	Fourier Analysis of Variational Quantum Circuits for Supervised Learning
2	269	Junghoon Justin Park, Jungwoo Seo, Sangyoon Bae, Samuel Yen-Chi Chen, Huan-Hsin Tseng,	Resting-state fMRI Analysis using Quantum Time-series Transformer
3	257	Jakob Murauer, Rajiv Krishnakumar, Sabine Tornow and Michaela Geierhos	Feedback Connections in Quantum Reservoir Computing with Mid-Circuit Measurements
4	263	Samuel Yen-Chi Chen, Huan-Hsin Tseng, Hsin-Yi Lin and Shinjae Yoo	Learning to Program Quantum Measurements for Machine Learning
5	321	Linus Jern, Valter Uotila, Cong Yu and Bo Zhao	Fine-Tuning Large Language Models on Quantum Optimization Problems for Circuit Generation
6	374	Maximilian Balthasar Mansky, Tobias Rohe, Gerhard Stenzel, Alejandro Bravo de la Serna,	Solving graph problems using permutation-invariant quantum machine learning
7	635	Abhishek Sawaika, Swetang Krishna, Durga Pritam Suggisetti, Tushar Tomar, Aditi Lal, Tanmaya	A Privacy-Preserving Federated Framework with Hybrid Quantum-Enhanced Learning for Financial
8	119	Kuan-Cheng Chen, Hiromichi Matsuyama and Wei-Hao Huang	Learning to Learn with Quantum Optimization via Quantum Neural Networks
9	199	Frans Perkkola, Ilmo Salmenperä, Arianne Meijer-van de Griend, C.-C. Joseph Wang, Ryan S.	Optimizing State Preparation for Variational Quantum Regression on NISQ Hardware
10	291	Pascal Debus, Kilian Tscharke, Maximilian Wendlinger, Daniel Herr, Cedric Brügmann, Daniel Ohl	Entangled Threats: A Unified Kill Chain Model for Quantum Machine Learning Security
11	304	Hsin-Yi Lin, Huan-Hsin Tseng, Samuel Yen-Chi Chen and Shinjae Yoo	Adaptive Non-local Observable on Quantum Neural Networks
12	450	Danielle Schuman, Mark V. Seebode, Tobias Rohe, Maximilian Balthasar Mansky, Michael	Quantum Boltzmann Machines using Parallel Annealing for Medical Image Classification
13	475	Emre Sahin, Matthew Madgwick, James Strudwick, Vivek Sehra, Oscar Wallis, Hamed Javidi	Quantum Machine Learning for minimal omics datasets with large feature space using embeddings
14	491	Yuchen Pang, Abhijith Jayakumar, Evan McKinney, Carleton Coffrin, Marc Vuffray and Andrey	Autoregressive pairwise Graphical Models efficiently find ground state representations of stoquastic
15	512	Ilya Tyagin, Marwa Farag, Karunya Shirali, Kyle Sherbert, Yuri Alexeev and Ilya Safro	QAOA-GPT: Efficient Generation of Adaptive and Regular Quantum Approximate Optimization
16	560	Sascha Mücke, Raoul Heese, Thore Gerlach, David Biesner, Loong Kuan Lee and Nico Piatkowski	Quantum Adiabatic Generation of Human-Like Passwords
17	606	Amol Deshmukh	Variational Quantum Self-Organizing Map
18	759	Dhana Phassadawongse and Stephen John Turner	Support Vector Classification and Regression using an Adaptive Quantum-Classical Dual Kernel
19	771	Franco Cirillo and Christian Esposito	Quantum Machine Learning for Intrusion Detection on Noisy Quantum Computers
20	775	Paolo Marcandelli, Stefano Markidis, Yuanchun He, Stefano Mariani and Martina Siena	Partitioned Hybrid Quantum Fourier Neural Operators for Scientific Quantum Machine Learning
21	136	Vivek Yanamadula, Jonathan Yang and Runzhou Tao	Bifrost: Topology-Aware Approximate Compilation of Variational Quantum Algorithms
22	252	Léa Cassé, Sabarikirishwaran Ponnambalam, Bernhard Pfahringer and Albert Bifet	Quantum Reupload Units: A Scalable and Expressive Approach for Time Series Learning
23	260	Samuel Yen-Chi Chen, Chen-Yu Liu, Kuan-Cheng Chen, Wei-Jia Huang, Yen-Jui Chang and Wei-	Differentiable Quantum Architecture Search in Quantum-Enhanced Neural Network Parameter
24	347	Lukas Schulte, Daniel Hein, Steffen Udluft and Thomas A. Runkler	Variational Quantum Circuits in Offline Contextual Bandit Problems
25	388	Aakash Ravindra Shinde and Jukka K. Nurminen	Influence of Data Dimensionality Reduction Methods on the Effectivity of Quantum Machine
26	481	Viet Thuong Tran and Richard Kueng	One, Two, Three: One Empirical Evaluation of a Two-Copy Shadow Tomography Scheme with
27	564	Keisuke Murota and Takumi Kobori	Trainable Quantum Neural Network for Multiclass Image Classification with the Power of Pre-
28	598	Siddhant Dutta, Nouhaila Innan, Sadok Ben Yahia and Muhammad Shafique	QAS-QTNs: Curriculum Reinforcement Learning-Driven Quantum Architecture Search for
29	607	Yifeng Peng, Xinyi Li, Zhemin Zhang, Samuel Yen-Chi Chen, Zhiding Liang and Ying Wang	Breaking Through Barren Plateaus: Reinforcement Learning Initializations for Deep Variational
30	684	Hibah Agha, Samuel Chen, Huan-Hsin Tseng and Shinjae Yoo	Neural Architect Search for Quantum Autoencoders
31	695	Seok Bin Son and Soohyun Park	Q-RLONAS: Towards Efficient Quantum Neural Architecture Search
32	727	Chen-Yu Liu, Samuel Yen-Chi Chen, Kuan-Cheng Chen, Wei-Jia Huang, Wei-Hao Huang and Yen-	Generative Modeling of Measurement Data for Quantum Parameter Adaptation
33	150	Takao Tomono and Kazuya Tsujimura	Anomaly Detection with Quantum Kernel in Time Series Data
34	180	Georg Kruse, Rodrigo Coelho, Andreas Rosskopf, Robert Wille and Jeanette Miriam Lorenz	CleanQRL: Lightweight Single-file Implementations of Quantum Reinforcement Learning
35	234	Yifeng Peng, Xinyi Li, Zhemin Zhang, Samuel Yen-Chi Chen, Zhiding Liang and Ying Wang	Can Classical Initialization Help Variational Quantum Circuits Escape the Barren Plateau?
36	343	David Winderl, Nicola Franco and Jeanette Miriam Lorenz	Constructing Optimal Noise Channels for Enhanced Robustness in Quantum Machine Learning
37	595	Maximilian Wendlinger, Kilian Tscharke and Pascal Debus	Old Rules in a New Game: Mapping Uncertainty Quantification to Quantum Machine Learning
38	130	Lei Jiang, Chi Zhang and Fan Chen	QSeer: A Quantum-Inspired Graph Neural Network for Parameter Initialization in Quantum
39	316	Atit Pokharel, Ratun Rahman, Shaba Altaf Shaon, Thomas Morris and Dinh C. Nguyen	Differentially Private Federated Quantum Learning via Quantum Noise
40	604	Daniel Barta, Darya Martyniuk, Johannes Jung and Adrian Paschke	Leveraging Diffusion Models for Parameterized Quantum Circuit Generation

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