A Complete Bibliography of *ACM Transactions on Quantum Computing (TQC)*

Nelson H. F. Beebe
University of Utah
Department of Mathematics, 110 LCB
155 S 1400 E RM 233
Salt Lake City, UT 84112-0090
USA

Tel: +1 801 581 5254

E-mail: beebe@math.utah.edu, beebe@acm.org,
beebe@computer.org (Internet)
WWW URL: https://www.math.utah.edu/~beebe/

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1 [AMD22, PB22].

2 [AMdJ23].

3 [CJAA+22].

Accelerating [THM+25]. **Accelerators** [ETS+25]. **Accuracy** [AKT24, ZNSD25]. **ACM** [HY21, HY20]. **across** [UMSN+21]. **Adder** [WMC25]. **Addressable** [ACC+23]. **Adiabatic** [AL22, HTS+22, VCZ+25]. **Advanced** [ABMO25]. **Affine** [Kon21]. **agnostic** [CML23]. **Algorithm** [AL22, CCH+23, JAA+22, LJHK24, MT21, MS23, PB22, VHW22]. **Algorithmic** [IKK+25]. **Algorithms** [AHKZ20, BTT22, BT21, CY25, HGPH25, LQS+23, Ros24, SM22, WNL25]. **Allocation** [Kon21]. **Amplitude** [VCR25]. **Analysis** [GBOE22]. **Annealer** [IHA21]. **Annealing** [MF24, RSB+23, RRN+23]. **Application** [DPHW23, DFP25]. **Applications** [LCM+24]. **Approach** [BSCSK22, DFP25, RAVZ25, SDL+23, SSC21, ZLTY23]. **Approximate** [AL22, MS22, RAVZ25, SLL+23]. **Approximating** [HZK+22]. **Architecture** [DK25, ZZC+24, VCZ+25]. **Architectures** [IKK+25, PSAF24, UMSN+21]. **ArQTiC**

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References

Aaronson:2021:OPR

[Aar21] Scott Aaronson. Open problems related to quantum query complexity. *ACM Transactions on Quantum Computing (TQC)*, 2(4):14:1–14:9, December 2021. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3488559`.

Aktar:2024:SEB

[ABBE24] Shamminuj Aktar, Andreas Bärtschi, Abdel-Hameed A. Badawy, and Stephan Eidenbenz. Scalable experimental bounds for entangled quantum state fidelities. *ACM Transactions on Quantum Computing (TQC)*, 5(4):27:1–27:??, December 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3700885`.

Alvarez:2023:GEP

[ABIJ23] Gonzalo Alvarez, Ryan Bennink, Stephan Irle, and Jacek Jakowski. Gene expression programming for quantum computing. *ACM Transactions on Quantum Computing (TQC)*, 4 (4):27:1–27:??, December 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3617691`.

Aizpurua:2025:HCP

[ABMO25] Borja Aizpurua, Pablo Bermejo, Josu Etxezarreta Martínez, and Román Orús. Hacking cryptographic protocols with advanced variational quantum attacks. *ACM Transactions on Quantum Computing (TQC)*, 6 (2):14:1–14:??, June 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Arrighi:2023:AQG

[ACC+23] Pablo Arrighi, Christopher Cedzich, Marin Costes, Ulysse Rémond, and Benoît Valiron. Addressable quantum gates. *ACM Transactions on Quantum Computing (TQC)*, 4(3):18:1–18:??, September 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3581760`.

Allcock:2020:QAF

[AHKZ20] Jonathan Allcock, Chang-Yu Hsieh, Iordanis Kerenidis, and Shengyu Zhang. Quantum algorithms for feedforward neural networks. *ACM Transactions on Quantum Computing (TQC)*, 1(1):6:1–6:24, December 2020. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3411466`.

Akibue:2024:PUS

[AKT24] Seiseki Akibue, Go Kato, and Seiichiro Tani. Probabilistic unitary synthesis with optimal accuracy. *ACM Transactions on Quantum Computing (TQC)*, 5 (3):17:1–17:??, September 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3663576`.

An:2022:QLS

[AL22] Dong An and Lin Lin. Quantum linear system solver based on time-optimal adiabatic quantum computing and quantum approximate optimization algorithm. *ACM Transactions on Quantum Computing (TQC)*, 3

(2):5:1–5:28, June 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3498331`.

Arapinis:2021:DSQ

[ALKP21] Myrto Arapinis, Nikolaos Lamprou, Elham Kashefi, and Anna Pappa. Definitions and security of quantum electronic voting. *ACM Transactions on Quantum Computing (TQC)*, 2 (1):4:1–4:33, April 2021. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3450144`.

Alexeev:2022:ISI

[AMD22] Yuri Alexeev, Alex McCaskey, and Wibe De Jong. Introduction to the special issue on software tools for quantum computing: Part 1. *ACM Transactions on Quantum Computing (TQC)*, 3(3):11:1–11:3, September 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3532179`.

Alexeev:2023:ISI

[AMdJ23] Yuri Alexeev, Alex McCaskey, and Wibe de Jong. Introduction to the special issue on software tools for quantum computing: Part 2. *ACM Transactions on Quantum Computing (TQC)*, 4(1):1:1–1:??, March 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3574160`.

Biswal:2024:STF

[BBCC24] Laxmidhar Biswal, Debjyoti Bhattacharjee, Amlan Chakrabarti, and Anupam Chattopadhyay. Synthesis techniques for fault-tolerant quantum circuit implementation using Clifford $+Z_N$-group. *ACM Transactions on Quantum Computing (TQC)*, 5 (3):16:1–16:??, September 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3673240`.

Baker:2020:IQC

[BDG+20] Jonathan M. Baker, Casey Duckering, Pranav Gokhale, Natalie C. Brown, Kenneth R. Brown, and Frederic T. Chong. Improved quantum circuits via intermediate qutrits. *ACM Transactions on Quantum Computing (TQC)*, 1(1):2:1–2:25, December 2020. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3406309`.

Bowman:2023:HCO

[BGL+23] Max Aksel Bowman, Pranav Gokhale, Jeffrey Larson, Ji Liu, and Martin Suchara. Hardware-conscious optimization of the quantum Toffoli gate. *ACM Transactions on Quantum Computing (TQC)*, 4(4):26:1–26:??, December 2023. CODEN ???? ISSN 2643-6809 (print), 2643-

6817 (electronic). URL https://dl.acm.org/doi/10.1145/3609229.

Bremner:2025:PCW

[BJL+25] Michael Bremner, Zhengfeng Ji, Xingjian Li, Luke Mathieson, and Mauro Morales. Parameterized complexity of weighted local Hamiltonian problems and the quantum exponential time hypothesis. *ACM Transactions on Quantum Computing (TQC)*, 6(4):31:1–31:36, December 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Burgholzer:2025:FBC

[BJPL+25] Lukas Burgholzer, Antonio Jimenez-Pastor, Kim Guldstrand Larsen, Mirco Tribastone, Max Tschaikowski, and Robert Wille. Forward and backward constrained bisimulations for quantum circuits using decision diagrams. *ACM Transactions on Quantum Computing (TQC)*, 6(2):13:1–13:??, June 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Barbeau:2022:AIR

[BKP22] Michel Barbeau, Evangelos Kranakis, and Nicolas Perez. Authenticity, integrity, and replay protection in quantum data communications and networking. *ACM Transactions on Quantum Computing (TQC)*, 3 (2):9:1–9:22, June 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3517341.

Bhoumik:2024:ESD

[BMM+24] Debasmita Bhoumik, Ritajit Majumdar, Dhiraj Madan, Dhinakaran Vinayagamurthy, Shesha Raghunathan, and Susmita Sur-Kolay. Efficient syndrome decoder for heavy hexagonal QECC via machine learning. *ACM Transactions on Quantum Computing (TQC)*, 5(1): 5:1–5:??, March 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3636516.

Bassman:2022:AFS

[BPD22] Lindsay Bassman, Connor Powers, and Wibe A. De Jong. ArQTiC: a full-stack software package for simulating materials on quantum computers. *ACM Transactions on Quantum Computing (TQC)*, 3(3):17:1–17:17, September 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3511715.

Basu:2022:QIA

[BSCSK22] Saikat Basu, Amit Saha, Amlan Chakrabarti, and Susmita Sur-Kolay. i-QER: an intelligent approach towards quantum error reduction. *ACM Transactions on Quantum Computing (TQC)*, 3(4):23:1–23:18, December 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (elec-

tronic). URL https://dl.acm.org/doi/10.1145/3539613.

Bera:2021:QRA

[BT21] Debajyoti Bera and Sapv Tharmashastha. Quantum and randomised algorithms for non-linearity estimation. *ACM Transactions on Quantum Computing (TQC)*, 2(2):5:1–5:27, July 2021. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3456509.

Beigi:2022:TQO

[BTT22] Salman Beigi, Leila Taghavi, and Artin Tajdini. Time- and query-optimal quantum algorithms based on decision trees. *ACM Transactions on Quantum Computing (TQC)*, 3(4):19:1–19:31, December 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3519269.

Caro:2024:LQP

[Car24] Matthias C. Caro. Learning quantum processes and Hamiltonians via the Pauli transfer matrix. *ACM Transactions on Quantum Computing (TQC)*, 5 (2):14:1–14:??, June 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3670418.

Chakrabarti:2023:QAE

[CCH+23] Shouvanik Chakrabarti, Andrew M. Childs, Shih-Han Hung, Tongyang Li, Chunhao Wang, and Xiaodi Wu. Quantum algorithm for estimating volumes of convex bodies. *ACM Transactions on Quantum Computing (TQC)*, 4(3):20:1–20:??, September 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3588579.

Cuomo:2023:OCD

[CCK+23] Daniele Cuomo, Marcello Caleffi, Kevin Krsulich, Filippo Tramonto, Gabriele Agliardi, Enrico Prati, and Angela Sara Cacciapuoti. Optimized compiler for distributed quantum computing. *ACM Transactions on Quantum Computing (TQC)*, 4 (2):15:1–15:??, June 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3579367.

Colisson:2025:NIN

[CGK25] Léo Colisson, Frédéric Grosshans, and Elham Kashefi. Non-interactive and non-destructive zero-knowledge proofs on quantum states and multi-party generation of authorized hidden GHZ states. *ACM Transactions on Quantum Computing (TQC)*, 6(2):16:1–16:??, June 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Cross:2022:OBD

[CJAA+22] Andrew Cross, Ali Javadi-Abhari, Thomas Alexander,

Niel De Beaudrap, Lev S. Bishop, Steven Heidel, Colm A. Ryan, Prasahnt Sivarajah, John Smolin, Jay M. Gambetta, and Blake R. Johnson. OpenQASM 3: a broader and deeper quantum assembly language. *ACM Transactions on Quantum Computing (TQC)*, 3(3):12:1–12:50, September 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3505636`.

Carette:2021:CGL

[CJPV21] Titouan Carette, Emmanuel Jeandel, Simon Perdrix, and Renaud Vilmart. Completeness of graphical languages for mixed state quantum mechanics. *ACM Transactions on Quantum Computing (TQC)*, 2 (4):17:1–17:28, December 2021. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3464693`.

Childs:2025:QDC

[CKKD+25] Andrew Childs, Robin Kothari, Matt Kovacs-Deak, Aarthi Sundaram, and Daochen Wang. Quantum divide and conquer. *ACM Transactions on Quantum Computing (TQC)*, 6(2): 17:1–17:??, June 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Claudino:2023:BAQ

[CML23] Daniel Claudino, Alexander J. McCaskey, and Dmitry I. Lyakh. A backend-agnostic, quantum-classical framework for simulations of chemistry in C++. *ACM Transactions on Quantum Computing (TQC)*, 4(1): 2:1–2:??, March 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3523285`.

Chen:2024:QCC

[CSP24] Daniel Tzu Shiuan Chen, Zain Hamid Saleem, and Michael Alexandrovich Perlin. Quantum circuit cutting for classical shadows. *ACM Transactions on Quantum Computing (TQC)*, 5(2):13:1–13:??, June 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3665335`.

Chen:2021:EOQ

[CWS+21] Chih-Chieh Chen, Masaya Watabe, Kodai Shiba, Masaru Sogabe, Katsuyoshi Sakamoto, and Tomah Sogabe. On the expressibility and overfitting of quantum circuit learning. *ACM Transactions on Quantum Computing (TQC)*, 2(2): 8:1–8:24, July 2021. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3466797`.

Cai:2025:QAD

[CY25] Jin-Yi Cai and Ben Young. Quantum algorithms for discrete log require precise rota-

tions. *ACM Transactions on Quantum Computing (TQC)*, 6 (3):21:1–21:??, September 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

deBrugiere:2025:SCC

[dBM25] Timothée Goubault de Brugière and Simon Martiel. Shallower CNOT circuits on realistic quantum hardware. *ACM Transactions on Quantum Computing (TQC)*, 6(2):11:1–11:??, June 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

deCarvalho:2025:QMS

[dCBdV+25] José Alex de Carvalho, Carlos Batista, Tiago de Veras, Israel Araujo, and Adenilton José da Silva. Quantum multiplexer simplification for state preparation. *ACM Transactions on Quantum Computing (TQC)*, 6 (4):26:1–26:12, December 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Dobbs:2025:EQC

[DFP25] Evan Dobbs, Joseph Friedman, and Alexandru Paler. Efficient quantum circuit design with a standard cell approach, with an application to neutral atom quantum computers. *ACM Transactions on Quantum Computing (TQC)*, 6(1): 3:1–3:??, March 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3670417`.

Dasgupta:2024:IUD

[DH24] Samudra Dasgupta and Travis Humble. Impact of unreliable devices on stability of quantum computations. *ACM Transactions on Quantum Computing (TQC)*, 5(4):22:1–22:??, December 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3682071`.

Matteo:2023:QCD

[DIB+23] Olivia Di Matteo, Josh Izaac, Thomas R. Bromley, Anthony Hayes, Christina Lee, Maria Schuld, Antal Száva, Chase Roberts, and Nathan Killoran. Quantum computing with differentiable quantum transforms. *ACM Transactions on Quantum Computing (TQC)*, 4(3):22:1–22:??, September 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3592622`.

Don:2025:QSQ

[DK25] Asitha Kottahachchi Kankanamge Don and Ibrahim Khalil. Q-SupCon: Quantum-enhanced supervised contrastive learning architecture within the representation learning framework. *ACM Transactions on Quantum Computing (TQC)*, 6(1): 6:1–6:??, March 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3660647`.

Doosti:2021:CSI

[DKDK21] Mina Doosti, Niraj Kumar, Mahshid Delavar, and Elham Kashefi. Client–server identification protocols with quantum PUF. *ACM Transactions on Quantum Computing (TQC)*, 2 (3):12:1–12:40, September 2021. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3484197`.

Difranco:2025:QPL

[DO25] Giuliano Difranco and Lindsay Bassman Oftelie. QuL: Programming library for computational cooling of qubits. *ACM Transactions on Quantum Computing (TQC)*, 6(3):23:1–23:??, September 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Das:2020:NEM

[DP20] Soumya Das and Goutam Paul. A new error-modeling of Hardy's Paradox for superconducting qubits and its experimental verification. *ACM Transactions on Quantum Computing (TQC)*, 1(1):4:1–4:24, December 2020. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3396239`.

Deng:2023:ANA

[DPHW23] Haowei Deng, Yuxiang Peng, Michael Hicks, and Xiaodi Wu. Automating NISQ application design with Meta Quantum Circuits with Constraints (MQCC). *ACM Transactions on Quantum Computing (TQC)*, 4(3):16:1–16:??, September 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3579369`.

Ekeraa:2024:SPQ

[Eke24] Martin Ekerå. On the success probability of quantum order finding. *ACM Transactions on Quantum Computing (TQC)*, 5(2):11:1–11:??, June 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3655026`.

Escofet:2025:RMQ

[EOB+25] Pau Escofet, Anabel Ovide, Medina Bandic, Luise Prielinger, Hans van Someren, Sebastian Feld, Eduard Alarcon, Sergi Abadal, and Carmen Almudever. Revisiting the mapping of quantum circuits: Entering the multi-core era. *ACM Transactions on Quantum Computing (TQC)*, 6(1):4:1–4:??, March 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3655029`.

Elsharkawy:2025:IQA

[ETS+25] Amr Elsharkawy, Xiao-Ting Michelle To, Philipp Seitz, Yanbin Chen, Yannick Stade, Manuel Geiger, Qunsheng Huang, Xiaorang Guo, Muhammad Arslan Ansari, Christian B. Mendl, Dieter Kranzlmüller, and Martin

Schulz. Integration of quantum accelerators with high performance computing — a review of quantum programming tools. *ACM Transactions on Quantum Computing (TQC)*, 6(3):24:1–24:??, September 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Fei:2025:STO

[FBL+25] Xinyu Fei, Lucas Brady, Jeffrey Larson, Sven Leyffer, and Siqian Shen. Switching time optimization for binary quantum optimal control. *ACM Transactions on Quantum Computing (TQC)*, 6(1):2:1–2:??, March 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3670416`.

Flammia:2020:EEP

[FW20] Steven T. Flammia and Joel J. Wallman. Efficient estimation of Pauli channels. *ACM Transactions on Quantum Computing (TQC)*, 1(1):3:1–3:32, December 2020. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3408039`.

Feng:2021:QHL

[FY21] Yuan Feng and Mingsheng Ying. Quantum Hoare logic with classical variables. *ACM Transactions on Quantum Computing (TQC)*, 2(4):16:1–16:43, December 2021. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3456877`.

Fu:2021:QPF

[FYS+21] X. Fu, Jintao Yu, Xing Su, Hanru Jiang, Hua Wu, Fucheng Cheng, Xi Deng, Jinrong Zhang, Lei Jin, Yihang Yang, Le Xu, Chunchao Hu, Anqi Huang, Guangyao Huang, Xiaogang Qiang, Mingtang Deng, Ping Xu, Weixia Xu, Wanwei Liu, Yu Zhang, Yuxin Deng, Junjie Wu, and Yuan Feng. Quingo: a programming framework for heterogeneous quantum-classical computing with NISQ features. *ACM Transactions on Quantum Computing (TQC)*, 2(4):19:1–19:37, December 2021. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3483528`.

Golden:2022:FSE

[GBOE22] John Golden, Andreas Bärtschi, Daniel O'Malley, and Stephan Eidenbenz. Fair sampling error analysis on NISQ devices. *ACM Transactions on Quantum Computing (TQC)*, 3(2):8:1–8:23, June 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3510857`.

GoubaultDeBrugiere:2021:GEV

[GBV+21] Timothée Goubault De Brugière, Marc Baboulin, Benoît Valiron, Simon Martiel, and Cyril Allouche. Gaussian elimination

versus greedy methods for the synthesis of linear reversible circuits. *ACM Transactions on Quantum Computing (TQC)*, 2 (3):11:1–11:26, September 2021. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3474226`.

Gemeinhardt:2024:MDF

[GGWW24] Felix Gemeinhardt, Antonio Garmendia, Manuel Wimmer, and Robert Wille. A model-driven framework for composition-based quantum circuit design. *ACM Transactions on Quantum Computing (TQC)*, 5(4):23:1–23:??, December 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3688856`.

Gribling:2024:OLC

[GKS24] Sander Gribling, Iordanis Kerenidis, and Dániel Szilágyi. An optimal linear-combination-of-unitaries-based quantum linear system solver. *ACM Transactions on Quantum Computing (TQC)*, 5(2):9:1–9:??, June 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3649320`.

Hadfield:2021:RBR

[Had21] Stuart Hadfield. On the representation of Boolean and real functions as Hamiltonians for quantum computing. *ACM Transactions on Quantum Computing (TQC)*, 2(4):18:1–18:21, December 2021. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3478519`.

Huang:2025:ASQ

[HGPH25] Yuxin Huang, Benjamin Grossman-Ponemon, and David Hyde. Automated synthesis of quantum algorithms via classical numerical techniques. *ACM Transactions on Quantum Computing (TQC)*, 6(4):28:1–28:24, December 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Higgott:2022:PPP

[Hig22] Oscar Higgott. PyMatching: a Python package for decoding quantum codes with minimum-weight perfect matching. *ACM Transactions on Quantum Computing (TQC)*, 3(3):16:1–16:16, September 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3505637`.

Haner:2022:LDQ

[HS22] Thomas Häner and Mathias Soeken. Lowering the T-depth of quantum circuits via logic network optimization. *ACM Transactions on Quantum Computing (TQC)*, 3(2):6:1–6:15, June 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3501334`.

Harwood:2022:IVQ

[HTS+22] Stuart M. Harwood, Dimitar Trenev, Spencer T. Stober, Panagiotis Barkoutsos, Tanvi P. Gujarati, Sarah Mostame, and Donny Greenberg. Improving the variational quantum eigensolver using variational adiabatic quantum computing. *ACM Transactions on Quantum Computing (TQC)*, 3(1): 1:1–1:20, March 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3479197`.

Humble:2020:IIE

[HY20] Travis S. Humble and Mingsheng Ying. Inaugural issue editorial for *ACM Transactions on Quantum Computing. ACM Transactions on Quantum Computing (TQC)*, 1(1): 1:1–1:2, December 2020. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3411487`.

Humble:2021:ECQ

[HY21] Travis S. Humble and Mingsheng Ying. Editorial on celebrating quantum computing with ACM. *ACM Transactions on Quantum Computing (TQC)*, 2(4):13:1–13:2, December 2021. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3488391`.

Hillmich:2022:ADD

[HZK+22] Stefan Hillmich, Alwin Zulehner, Richard Kueng, Igor L. Markov, and Robert Wille. Approximating decision diagrams for quantum circuit simulation. *ACM Transactions on Quantum Computing (TQC)*, 3(4):22:1–22:21, December 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3530776`.

Izquierdo:2021:TQA

[IHA21] Zoe Gonzalez Izquierdo, Itay Hen, and Tameem Albash. Testing a quantum annealer as a quantum thermal sampler. *ACM Transactions on Quantum Computing (TQC)*, 2(2): 7:1–7:20, July 2021. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3464456`.

Ittah:2022:QSS

[IHKH22] David Ittah, Thomas Häner, Vadym Kliuchnikov, and Torsten Hoefler. QIRO: a static single assignment-based quantum program representation for optimization. *ACM Transactions on Quantum Computing (TQC)*, 3 (3):14:1–14:32, September 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3491247`.

Ito:2025:ATQ

[IKK+25] Takehiro Ito, Naonori Kakimura,

Naoyuki Kamiyama, Yusuke Kobayashi, and Yoshio Okamoto. Algorithmic theory of qubit routing in the linear nearest neighbor architectures. *ACM Transactions on Quantum Computing (TQC)*, 6(3):19:1–19:??, September 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Iten:2022:EPP

[IMM+22] Raban Iten, Romain Moyard, Tony Metger, David Sutter, and Stefan Woerner. Exact and practical pattern matching for quantum circuit optimization. *ACM Transactions on Quantum Computing (TQC)*, 3(1): 4:1–4:41, March 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3498325`.

Ikenmeyer:2025:KCB

[IS25] Christian Ikenmeyer and Sathyawageeswar Subramanian. Kronecker coefficients in #BQP. *ACM Transactions on Quantum Computing (TQC)*, 6(4):32:1–32:13, December 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

J:2022:QAI

[JAA+22] Abhijith J., Adetokunbo Adedoyin, John Ambrosiano, Petr Anisimov, William Casper, Gopinath Chennupati, Carleton Coffrin, Hristo Djidjev, David Gunter, Satish Karra, Nathan Lemons, Shizeng Lin, Alexander Malyzhenkov, David Mascarenas, Susan Mniszewski, Balu Nadiga, Daniel O'Malley, Diane Oyen, Scott Pakin, Lakshman Prasad, Randy Roberts, Phillip Romero, Nandakishore Santhi, Nikolai Sinitsyn, Pieter J. Swart, James G. Wendelberger, Boram Yoon, Richard Zamora, Wei Zhu, Stephan Eidenbenz, Andreas Bärtschi, Patrick J. Coles, Marc Vuffray, and Andrey Y. Lokhov. Quantum algorithm implementations for beginners. *ACM Transactions on Quantum Computing (TQC)*, 3 (4):18:1–18:92, December 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3517340`.

Jaques:2022:LSS

[JH22] Samuel Jaques and Thomas Häner. Leveraging state sparsity for more efficient quantum simulations. *ACM Transactions on Quantum Computing (TQC)*, 3 (3):15:1–15:17, September 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3491248`.

Kattemolle:2025:LGQ

[KH25] Joris Kattemölle and Seenivasan Hariharan. Line-graph qubit routing. *ACM Transactions on Quantum Computing (TQC)*, 6 (3):22:1–22:??, September 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Kong:2021:IAL

[Kon21] Martin Kong. On the impact of affine loop transformations in qubit allocation. *ACM Transactions on Quantum Computing (TQC)*, 2(3): 9:1–9:40, September 2021. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3465409`.

Kerenidis:2020:QIP

[KP20] Iordanis Kerenidis and Anupam Prakash. A quantum interior point method for LPs and SDPs. *ACM Transactions on Quantum Computing (TQC)*, 1(1):5:1–5:32, December 2020. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3406306`.

Lin:2021:USG

[LAH21] Joseph X. Lin, Eric R. Anschuetz, and Aram W. Harrow. Using spectral graph theory to map qubits onto connectivity-limited devices. *ACM Transactions on Quantum Computing (TQC)*, 2(1):3:1–3:30, February 2021. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3436752`.

Lubinski:2024:OAQ

[LCM+24] Thomas Lubinski, Carleton Coffrin, Catherine McGeoch, Pratik Sathe, Joshua Apanavicius, David Bernal Neira, and Quantum Economic Development Consortium(QED-C) Collaboration. Optimization applications as quantum performance benchmarks. *ACM Transactions on Quantum Computing (TQC)*, 5 (3):18:1–18:??, September 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3678184`.

Leblond:2024:RCE

[LDWB24] Tyler Leblond, Christopher Dean, George Watkins, and Ryan Bennink. Realistic cost to execute practical quantum circuits using direct Clifford+T lattice surgery compilation. *ACM Transactions on Quantum Computing (TQC)*, 5(4):25:1–25:??, December 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3689826`.

Lee:2024:ARL

[LJHK24] Hochang Lee, Kyung Chul Jeong, Daewan Han, and Panjin Kim. An algorithm for reversible logic circuit synthesis based on tensor decomposition. *ACM Transactions on Quantum Computing (TQC)*, 5(3):15:1–15:??, September 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3673242`.

Lugao:2024:MSS

[LPST24] Pedro Lugão, Renato Portugal, Mohamed Sabri, and Hajime

Tanaka. Multimarked spatial search by continuous-time quantum walk. *ACM Transactions on Quantum Computing (TQC)*, 5(4):28:1–28:??, December 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3706064`.

Li:2023:QBI

[LQS+23] Hai-Sheng Li, Jinhui Quan, Shuxiang Song, Yuxing Wei, and Li Qing. Quantum bilinear interpolation algorithms based on geometric centers. *ACM Transactions on Quantum Computing (TQC)*, 4(3):21:1–21:??, September 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3591364`.

Li:2023:QLL

[LSKA23] Ang Li, Samuel Stein, Sriram Krishnamoorthy, and James Ang. QASMBench: a low-level quantum benchmark suite for NISQ evaluation and simulation. *ACM Transactions on Quantum Computing (TQC)*, 4(2):10:1–10:??, June 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3550488`.

Lewis:2024:FVQ

[LSZ24] Marco Lewis, Sadegh Soudjani, and Paolo Zuliani. Formal verification of quantum programs: Theory, tools, and challenges. *ACM Transactions on Quantum Computing (TQC)*, 5(1):1:1–1:??, March 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3624483`.

McGeoch:2024:MQU

[MF24] Catherine C. McGeoch and Pau Farré. Milestones on the quantum utility highway: Quantum annealing case study. *ACM Transactions on Quantum Computing (TQC)*, 5(1):2:1–2:??, March 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3625307`.

Matsuura:2025:WQC

[MM25] Anne Y. Matsuura and Timothy Mattson. What quantum can learn from classical computer engineering. *ACM Transactions on Quantum Computing (TQC)*, 6(1):1:1–1:??, March 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3705007`.

Mccaskey:2021:ECH

[MNS+21] Alexander Mccaskey, Thien Nguyen, Anthony Santana, Daniel Claudino, Tyler Kharazi, and Hal Finkel. Extending C++ for heterogeneous quantum–classical computing. *ACM Transactions on Quantum Computing (TQC)*, 2(2):6:1–6:36, July 2021. CODEN

???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3462670.

Madden:2022:BAQ

[MS22] Liam Madden and Andrea Simonetto. Best approximate quantum compiling problems. *ACM Transactions on Quantum Computing (TQC)*, 3(2): 7:1–7:29, June 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3505181.

Mariella:2023:QAS

[MS23] Nicola Mariella and Andrea Simonetto. A quantum algorithm for the sub-graph isomorphism problem. *ACM Transactions on Quantum Computing (TQC)*, 4(2):13:1–13:??, June 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3569095.

Ma:2021:QML

[MT21] Yunpu Ma and Volker Tresp. Quantum machine learning algorithm for knowledge graphs. *ACM Transactions on Quantum Computing (TQC)*, 2(3):10:1–10:28, September 2021. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3467982.

Mohammadisiahroudi:2025:IQI

[MWA+25] Mohammadhossein Mohammadisiahroudi, Zeguan Wu, Brandon Augustino, Arielle Carr, and Tamás Terlaky. Improvements to quantum interior point method for linear optimization. *ACM Transactions on Quantum Computing (TQC)*, 6(1): 8:1–8:??, March 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3702244.

Nannicini:2023:OQA

[NBGJ23] Giacomo Nannicini, Lev S. Bishop, Oktay Günlük, and Petar Jurcevic. Optimal qubit assignment and routing via integer programming. *ACM Transactions on Quantum Computing (TQC)*, 4(1):7:1–7:??, March 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3544563.

Nowak:2024:OGT

[NBSM24] Wolfgang Nowak, Tim Bruennette, Merel Annelise Schalkers, and Matthias Möller. Overdispersion in gate tomography: Experiments and continuous, two-scale random walk model on the Bloch sphere. *ACM Transactions on Quantum Computing (TQC)*, 5(4):24:1–24:??, December 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3688857.

Nguyen:2023:TNQ

[NLD+23] Thien Nguyen, Dmitry Lyakh,

Eugene Dumitrescu, David Clark, Jeff Larkin, and Alexander McCaskey. Tensor network quantum virtual machine for simulating quantum circuits at exascale. *ACM Transactions on Quantum Computing (TQC)*, 4(1):6:1–6:??, March 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3547334`.

Nguyen:2022:EPQ

[NM22] Thien Nguyen and Alexander J. McCaskey. Extending Python for quantum-classical computing via quantum just-in-time compilation. *ACM Transactions on Quantum Computing (TQC)*, 3 (4):24:1–24:25, December 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3544496`.

Paler:2022:ECQ

[PB22] Alexandru Paler and Robert Basmadjian. Energy cost of quantum circuit optimisation: Predicting that optimising Shor's algorithm circuit uses 1 GWh. *ACM Transactions on Quantum Computing (TQC)*, 3(1):3:1–3:14, March 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3490172`.

Perriello:2023:IEQ

[PBP23] Simone Perriello, Alessandro Barenghi, and Gerardo Pelosi. Improving the efficiency of quantum circuits for information set decoding. *ACM Transactions on Quantum Computing (TQC)*, 4(4):25:1–25:??, December 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3607256`.

Peham:2023:OSQ

[PBW23] Tom Peham, Lukas Burgholzer, and Robert Wille. On optimal subarchitectures for quantum circuit mapping. *ACM Transactions on Quantum Computing (TQC)*, 4(4):23:1–23:??, December 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3593594`.

Pan:2024:EQC

[PGK+24] Feng Pan, Hanfeng Gu, Lvlin Kuang, Bing Liu, and Pan Zhang. Efficient quantum circuit simulation by tensor network methods on modern GPUs. *ACM Transactions on Quantum Computing (TQC)*, 5(4): 26:1–26:??, December 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3696465`.

Pozzi:2022:URL

[PHSM22] Matteo G. Pozzi, Steven J. Herbert, Akash Sengupta, and Robert D. Mullins. Using reinforcement learning to perform

qubit routing in quantum compilers. *ACM Transactions on Quantum Computing (TQC)*, 3 (2):10:1–10:25, June 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3520434`.

Preskill:2025:BNM

[Pre25] John Preskill. Beyond NISQ: The megaquop machine. *ACM Transactions on Quantum Computing (TQC)*, 6(3):18:1–18:??, September 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Paraskevopoulos:2024:SCS

[PSAF24] Nikiforos Paraskevopoulos, Fabio Sebastiano, Carmen G. Almudever, and Sebastian Feld. SpinQ: Compilation strategies for scalable spin-qubit architectures. *ACM Transactions on Quantum Computing (TQC)*, 5(1): 4:1–4:??, March 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3624484`.

Paler:2023:MLO

[PSFA23] Alexandru Paler, Lucian Sasu, Adrian-Catalin Florea, and Razvan Andonie. Machine learning optimization of quantum circuit layouts. *ACM Transactions on Quantum Computing (TQC)*, 4(2):12:1–12:??, June 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3565271`.

Quetschlich:2025:MPA

[QBW25] Nils Quetschlich, Lukas Burgholzer, and Robert Wille. MQT Predictor: Automatic device selection with device-specific circuit compilation for quantum computing. *ACM Transactions on Quantum Computing (TQC)*, 6(1):10:1–10:??, March 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3673241`.

Robertson:2025:AQC

[RAVZ25] Niall Robertson, Albert Akhriev, Jiri Vala, and Sergiy Zhuk. Approximate quantum compiling for quantum simulation: a tensor network based approach. *ACM Transactions on Quantum Computing (TQC)*, 6(3):20:1–20:??, September 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Riofrio:2024:CQG

[RMJ+24] Carlos A. Riofrio, Oliver Mitevski, Caitlin Jones, Florian Krellner, Aleksandar Vuckovic, Joseph Doetsch, Johannes Klepsch, Thomas Ehmer, and Andre Luckow. A characterization of quantum generative models. *ACM Transactions on Quantum Computing (TQC)*, 5(2): 12:1–12:??, June 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL

https://dl.acm.org/doi/10.1145/3655027.

Rosmanis:2024:HQC

[Ros24] Ansis Rosmanis. Hybrid quantum-classical search algorithms. *ACM Transactions on Quantum Computing (TQC)*, 5 (2):8:1–8:??, June 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3648573.

Roch:2023:EPF

[RRN+23] Christoph Roch, Daniel Ratke, Jonas Nüßlein, Thomas Gabor, and Sebastian Feld. The effect of penalty factors of constrained Hamiltonians on the eigenspectrum in quantum annealing. *ACM Transactions on Quantum Computing (TQC)*, 4 (2):14:1–14:??, June 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3577202.

Raymond:2023:HQA

[RSB+23] Jack Raymond, Radomir Stevanovic, William Bernoudy, Kelly Boothby, Catherine C. McGeoch, Andrew J. Berkley, Pau Farré, Joel Pasvolsky, and Andrew D. King. Hybrid quantum annealing for larger-than-QPU lattice-structured problems. *ACM Transactions on Quantum Computing (TQC)*, 4 (3):17:1–17:??, September 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3579368.

Shinde:2025:UCP

[SBN+25] Tejas Shinde, Ljubomir Budinski, Ossi Niemimäki, Valtteri Lahtinen, Helena Liebelt, and Rui Li. Utilizing classical programming principles in the Intel Quantum SDK: implementation of quantum lattice Boltzmann method. *ACM Transactions on Quantum Computing (TQC)*, 6(1):9:1–9:??, March 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3678185.

Smith:2023:LSN

[SDL+23] Ethan Smith, Marc Grau Davis, Jeffrey Larson, Ed Younis, Lindsay Bassman Oftelie, Wim Lavrijsen, and Costin Iancu. LEAP: Scaling numerical optimization based synthesis using an incremental approach. *ACM Transactions on Quantum Computing (TQC)*, 4(1): 5:1–5:??, March 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3548693.

Sundaram:2025:DQD

[SGR25] Ranjani Sundaram, Himanshu Gupta, and CR Ramakrishnan. DQC-QR: Distributing and routing quantum circuits with minimum execution time. *ACM Transactions on Quantum Computing (TQC)*, 6(4):30:1–30:26,

December 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Shao:2022:CED

[Sha22] Changpeng Shao. Computing eigenvalues of diagonalizable matrices on a quantum computer. *ACM Transactions on Quantum Computing (TQC)*, 3 (4):21:1–21:20, December 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3527845`.

Shaydulin:2023:PTQ

[SLL+23] Ruslan Shaydulin, Phillip C. Lotshaw, Jeffrey Larson, James Ostrowski, and Travis S. Humble. Parameter transfer for quantum approximate optimization of weighted MaxCut. *ACM Transactions on Quantum Computing (TQC)*, 4(3):19:1–19:??, September 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3584706`.

Shao:2022:FQI

[SM22] Changpeng Shao and Ashley Montanaro. Faster quantum-inspired algorithms for solving linear systems. *ACM Transactions on Quantum Computing (TQC)*, 3(4):20:1–20:23, December 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3520141`.

Smith:2023:TES

[SRM+23] Kaitlin N. Smith, Gokul Subramanian Ravi, Prakash Murali, Jonathan M. Baker, Nathan Earnest, Ali Javadi-Cabhari, and Frederic T. Chong. TimeStitch: Exploiting slack to mitigate decoherence in quantum circuits. *ACM Transactions on Quantum Computing (TQC)*, 4(1):8:1–8:??, March 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3548778`.

Suau:2021:PQC

[SSC21] Adrien Suau, Gabriel Staffelbach, and Henri Calandra. Practical quantum computing: Solving the wave equation using a quantum approach. *ACM Transactions on Quantum Computing (TQC)*, 2(1):2:1–2:35, February 2021. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3430030`.

Suau:2023:QGI

[SSTS23] Adrien Suau, Gabriel Staffelbach, and Aida Todri-Sanial. qprof: a gprof-inspired quantum profiler. *ACM Transactions on Quantum Computing (TQC)*, 4(1):4:1–4:??, March 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3529398`.

Tate:2023:BCQ

[TFH+23] Reuben Tate, Majid Farhadi, Creston Herold, Greg Mohler, and Swati Gupta. Bridging classical and quantum with SDP initialized warm-starts for QAOA. *ACM Transactions on Quantum Computing (TQC)*, 4(2): 9:1–9:??, June 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3549554`.

Teranishi:2025:LQR

[THM+25] Yusuke Teranishi, Shoma Hiraoka, Wataru Mizukami, Masao Okita, and Fumihiko Ino. Lazy qubit reordering for accelerating parallel state-vector-based quantum circuit simulation. *ACM Transactions on Quantum Computing (TQC)*, 6(4):27:1–27:33, December 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Ushijima-Mwesigwa:2021:MCO

[UMSN+21] Hayato Ushijima-Mwesigwa, Ruslan Shaydulin, Christian F. A. Negre, Susan M. Mniszewski, Yuri Alexeev, and Ilya Safro. Multilevel combinatorial optimization across quantum architectures. *ACM Transactions on Quantum Computing (TQC)*, 2(1):1:1–1:29, February 2021. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3425607`.

Utt:2024:QMC

[UVM24] Zachery Utt, Daniel Volya, and Prabhat Mishra. Quantum measurement classification using statistical learning. *ACM Transactions on Quantum Computing (TQC)*, 5(2):7:1–7:??, June 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3644823`.

Vu:2025:LDA

[VCR25] Dinh-Long Vu, Bin Cheng, and Patrick Rebentrost. Low-depth amplitude estimation without really trying. *ACM Transactions on Quantum Computing (TQC)*, 6(4):29:1–29:23, December 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Volpe:2025:IES

[VCZ+25] Deborah Volpe, Giovanni Amedeo Cirillo, Maurizio Zamboni, Mariagrazia Graziano, and Giovanna Turvani. Improving the exploitability of simulated adiabatic bifurcation through a flexible and open-source digital architecture. *ACM Transactions on Quantum Computing (TQC)*, 6(1):7:1–7:??, March 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3665281`.

Vazquez:2022:EQL

[VHW22] Almudena Carrera Vazquez, Ralf Hiptmair, and Stefan Wo-

erner. Enhancing the quantum linear systems algorithm using Richardson extrapolation. *ACM Transactions on Quantum Computing (TQC)*, 3(1): 2:1–2:37, March 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3490631`.

Vandaele:2024:OHG

[VMPV24] Vivien Vandaele, Simon Martiel, Simon Perdrix, and Christophe Vuillot. Optimal Hadamard gate count for Clifford + T synthesis of Pauli rotations sequences. *ACM Transactions on Quantum Computing (TQC)*, 5 (1):6:1–6:??, March 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3639062`.

Wille:2022:TQC

[WHB22] Robert Wille, Stefan Hillmich, and Lukas Burgholzer. Tools for quantum computing based on decision diagrams. *ACM Transactions on Quantum Computing (TQC)*, 3(3):13:1–13:17, September 2022. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3491246`.

Wang:2025:OTD

[WMC25] Siyi Wang, Ankit Mondal, and Anupam Chattopadhyay. Optimal Toffoli-depth quantum adder. *ACM Transactions on Quantum Computing (TQC)*, 6 (3):25:1–25:??, September 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Wagner:2025:EQA

[WNL25] Friedrich Wagner, Jonas Nüßlein, and Frauke Liers. Enhancing quantum algorithms for quadratic unconstrained binary optimization via integer programming. *ACM Transactions on Quantum Computing (TQC)*, 6(2):12:1–12:??, June 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Wu:2021:ISI

[Wu21] Xiaodi Wu. Introduction to the special issue on the techniques of programming languages, logic, and formal methods in quantum computing. *ACM Transactions on Quantum Computing (TQC)*, 2(4):15:1–15:3, December 2021. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https://dl.acm.org/doi/10.1145/3488389`.

Xu:2023:AQC

[XHB+23] Yilun Xu, Gang Huang, Jan Balewski, Alexis Morvan, Kasra Nowrouzi, David I. Santiago, Ravi K. Naik, Brad Mitchell, and Irfan Siddiqi. Automatic qubit characterization and gate optimization with QubiC. *ACM Transactions on Quantum Computing (TQC)*, 4(1):3:1–3:??, March 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL `https:`

//dl.acm.org/doi/10.1145/3529397.

Yuen:2023:RSC

[YN23] Henry Yuen and Ashwin Nayak. Rigidity of superdense coding. *ACM Transactions on Quantum Computing (TQC)*, 4(4): 24:1–24:??, December 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3593593.

Yan:2025:LTY

[YVA25] Fei Yan and Salvador E. Venegas-Andraca. Lessons from twenty years of quantum image processing. *ACM Transactions on Quantum Computing (TQC)*, 6(1):5:1–5:??, March 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3663577.

Zhan:2024:OIS

[ZGH24] Caitao Zhan, Himanshu Gupta, and Mark Hillery. Optimizing initial state of detector sensors in quantum sensor networks. *ACM Transactions on Quantum Computing (TQC)*, 5 (2):10:1–10:??, June 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3655028.

Zheng:2023:BAC

[ZLTY23] Muqing Zheng, Ang Li, Tamás Terlaky, and Xiu Yang. A Bayesian approach for characterizing and mitigating gate and measurement errors. *ACM Transactions on Quantum Computing (TQC)*, 4(2):11:1–11:??, June 2023. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3563397.

Zylberman:2025:EQC

[ZNSD25] Julien Zylberman, Ugo Nzongani, Andrea Simonetto, and Fabrice Debbasch. Efficient quantum circuits for non-unitary and unitary diagonal operators with space-time-accuracy trade-offs. *ACM Transactions on Quantum Computing (TQC)*, 6(2):15:1–15:??, June 2025. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic).

Zhang:2024:CAD

[ZZC+24] Fang Zhang, Xing Zhu, Rui Chao, Cupjin Huang, Linghang Kong, Guoyang Chen, Dawei Ding, Haishan Feng, Yihuai Gao, Xiaotong Ni, Liwei Qiu, Zhe Wei, Yueming Yang, Yang Zhao, Yaoyun Shi, Weifeng Zhang, Peng Zhou, and Jianxin Chen. A classical architecture for digital quantum computers. *ACM Transactions on Quantum Computing (TQC)*, 5(1):3:1–3:??, March 2024. CODEN ???? ISSN 2643-6809 (print), 2643-6817 (electronic). URL https://dl.acm.org/doi/10.1145/3626199.