

Bibliography

- [1] N David Mermin. *Quantum computer science: an introduction*. Cambridge University Press, 2007.
- [2] Giuliano Benenti, Giulio Casati, Davide Rossini, and Giuliano Strini. *Principles of Quantum Computation and Information: A Comprehensive Textbook*. World Scientific, 2018.
- [3] Alain Aspect, Philippe Grangier, and Gérard Roger. Experimental realization of einstein-podolsky-rosen-bohm gedankenexperiment: A new violation of bell’s inequalities. *Phys. Rev. Lett.*, 49:91–94, Jul 1982.
- [4] Gregor Weihs, Thomas Jennewein, Christoph Simon, Harald Weinfurter, and Anton Zeilinger. Violation of bell’s inequality under strict einstein locality conditions. *Phys. Rev. Lett.*, 81:5039–5043, Dec 1998.
- [5] Peter W. Shor. Polynomial-time algorithms for prime factorization and discrete logarithms on a quantum computer. *SIAM J. Comput.*, 26:1484–1509, 1997.
- [6] Vincent Jacques, E Wu, Frédéric Grosshans, Franccois Treussart, Philippe Grangier, Alain Aspect, and Jean-Franccois Roch. Experimental realization of wheeler’s delayed-choice gedanken experiment. *Science*, 315(5814):966–968, 2007.
- [7] Yoon-Ho Kim, Rong Yu, Sergei P. Kulik, Yanhua Shih, and Marlan O. Scully. Delayed “choice” quantum eraser. *Phys. Rev. Lett.*, 84:1–5, Jan 2000.
- [8] Tabish Qureshi. Demystifying the delayed-choice quantum eraser. *European Journal of Physics*, 41(5):055403, aug 2020.
- [9] Marc Mézard and Andrea Montanari. *Information, physics, and computation*. Oxford University Press, 2009.
- [10] Robert B. Griffiths and Chi-Sheng Niu. Semiclassical fourier transform for quantum computation. *Phys. Rev. Lett.*, 76:3228–3231, Apr 1996.
- [11] César Miquel, Juan Pablo Paz, and Roberto Perazzo. Factoring in a dissipative quantum computer. *Phys. Rev. A*, 54:2605–2613, Oct 1996.
- [12] Lov K. Grover. Quantum mechanics helps in searching for a needle in a haystack. *Phys. Rev. Lett.*, 79:325–328, Jul 1997.
- [13] Edward Farhi, Jeffrey Goldstone, and Sam Gutmann. A Quantum Approximate Optimization Algorithm. *arXiv e-prints*, page arXiv:1411.4028, 2014.
- [14] Glen Bigan Mbeng, Rosario Fazio, and Giuseppe E Santoro. Quantum annealing: a journey through digitalization, control, and hybrid quantum variational schemes. *arXiv preprint arXiv:1906.08948*, 2019.
- [15] Zhang Jiang, Eleanor G. Rieffel, and Zhihui Wang. Near-optimal quantum circuit for grover’s unstructured search using a transverse field. *Phys. Rev. A*, 95:062317, Jun 2017.

- [16] Matteo M. Wauters, Glen B. Mbeng, and Giuseppe E. Santoro. Polynomial scaling of the quantum approximate optimization algorithm for ground-state preparation of the fully connected p -spin ferromagnet in a transverse field. *Phys. Rev. A*, 102:062404, Dec 2020.
- [17] Asher Peres. *Quantum theory: concepts and methods*, volume 57. Springer Science & Business Media, 2006.
- [18] Charles H. Bennett and Gilles Brassard. Quantum cryptography: Public key distribution and coin tossing. *Theoretical Computer Science*, 560:7–11, 2014. Theoretical Aspects of Quantum Cryptography — celebrating 30 years of BB84.
- [19] David Elkouss, Jesús Martínez-Mateo, and Vicente Martin. Information reconciliation for QKD. *Quantum Inf. Comput.*, 11(3&4):226–238, 2011.
- [20] Artur K. Ekert. Quantum cryptography based on bell’s theorem. *Phys. Rev. Lett.*, 67:661–663, Aug 1991.
- [21] C. Cohen-Tannoudji, J. Dupont-Roc, and G. Grynberg. *Atom-Photon Interactions: Basic Processes and Applications*. John Wiley & Sons, 1992.
- [22] G. Lindblad. On the generators of quantum dynamical semigroups. *Commun. Math. Phys.*, 48:119, 1976.
- [23] P. Gaspard and M. Nagaoka. Slippage of initial conditions for the Redfield master equation. *J. Chem. Phys.*, 111:5668, 1999.
- [24] Heinz-Peter Breuer and Francesco Petruccione. *The Theory of Open Quantum Systems*. Oxford University Press, 2002.
- [25] Gernot Schaller. *Open Quantum Systems Far from Equilibrium*, volume 881. 11 2013.
- [26] A.O. Caldeira and A.J. Leggett. Path integral approach to quantum brownian motion. *Physica A: Statistical Mechanics and its Applications*, 121(3):587 – 616, 1983.
- [27] A.O Caldeira and A.J Leggett. Quantum tunnelling in a dissipative system. *Annals of Physics*, 149(2):374 – 456, 1983.
- [28] T. Albash, S. Boixo, D. A. Lidar, and P. Zanardi. Quantum adiabatic Markovian master equations. *New J. Phys.*, 14:123016, 2012.
- [29] M. Grifoni and P. Hänggi. Driven quantum tunneling. *Physics Reports*, 304:229–354, 1998.
- [30] Angelo Russomanno, Stefano Pugnetti, Valentina Brosco, and Rosario Fazio. Floquet theory of cooper pair pumping. *Phys. Rev. B*, 83:214508, Jun 2011.
- [31] Alexander Shnirman, Yuriy Makhlin, and Gerd Schön. Noise and decoherence in quantum two-level systems. *Phys. Scr.*, T102:147–154, 2002.
- [32] J.R. Johansson, P.D. Nation, and Franco Nori. QuTiP: An open-source python framework for the dynamics of open quantum systems. *Computer Physics Communications*, 183(8):1760–1772, aug 2012.
- [33] J.R. Johansson, P.D. Nation, and Franco Nori. QuTiP 2: A python framework for the dynamics of open quantum systems. *Computer Physics Communications*, 184(4):1234–1240, apr 2013.