

References

- [1] C. H. Bennett and D. P. DiVincenzo. *Quantum Information and Computation*. Nature, 404:247–255, 2000.
 - [2] C. H. Bennett, P. W. Shor, J. A. Smolin, and A. V. Thapliyal. *Entanglement-Assisted Capacity of a Quantum Channel and the Reverse Shannon Theorem*. IEEE Transactions on Information Theory, 48(10):2637–2655, 2002.
 - [3] E. Bernstein and U. Vazirani. *Quantum Complexity Theory*. ACM 25th Symposium on Theory of Computing, p.11-20, 1993.
 - [4] I. L. Chuang, R. Laflamme, P. Shor, and W. Zurek. *Quantum Computers, Factoring and Decoherence* <http://arxiv.org/archive/quant-ph/9503007>, 1995.
 - [5] L. B. Levitin, T. Toffoli, and Z. Walton. *Information and Distinguishability of Ensembles of Identical Quantum States*. <http://arxiv.org/archive/quant-ph/0112075>, 2001.
 - [6] J. Preskill. *Fault-Tolerant Quantum Computation*. <http://arxiv.org/archive/quant-ph/9712048>, 1997.
 - [7] J. Preskill. *Quantum Computing: Pro and Con*. Proceedings of the Royal Society of London A, 454(1969):469–486, 1998.
 - [8] A. M. Steane. *Space, Time, Parallelism and Noise Requirements for Reliable Quantum Computing*. Fortschritte der Physik, 46(4-5):443–457, 1998.
- ERROR CORRECTION**
- [9] D. Gottesman. *An Introduction to Quantum Error Correction*. <http://arxiv.org/archive/quant-ph/0004072>, 2000.
 - [10] C. H. Bennett, G. Brassard, S. Popescu, B. Schumacher, J. Smolin, and W. K. Wootters. *Purification of Noisy Entanglement and Faithful Teleportation via Noisy Channels*. <http://arxiv.org/archive/quant-ph/9511027>, 1995.
 - [11] T. Beth and M. Grassi. *The Quantum Hamming and Hexacodes*. Fortschritte der Physik, 46(4-5):459–491, 1998.
 - [12] A. R. Calderbank and P. W. Shor. *Good Quantum Error-Correcting Codes Exist*. Physical Review A, 54(2):1098–1105, 1996.

- [13] E. Knill, R. Laflamme, and W. H. Zurek. *Quantum Computation: Error Models and Thresholds*. Proceedings of the Royal Society of London A, 454(1969):365–384, 1998.
 - [14] M. A. Nielsen, C. M. Caves, B. Schumacher, H. Barnum. *Information–Theoretic Approach to Quantum Error Correction and Reversible Measurement*. Proceedings of the Royal Society of London A, 454(1969):277–304, 1998.
 - [15] J. P. Paz, W. H. Zurek. *Continuous Error Correction*. Proceedings of the Royal Society of London A, 454(1969):355–364, 1998.
 - [16] C. Ahn, A. C. Doherty, and A. J. Landahl. *Continuous Quantum Error Correction via Quantum Feedback Control*. Physical Review A, 65:042301, 10 pp, 2002.
 - [17] H. M. Wiseman. *Quantum Theory of Continuous Feedback*. Physical Review A, 49(3):2133–2150, 1994.
 - [18] J. Preskill. *Reliable Quantum Computers*. Proceedings of the Royal Society of London A, 454(1969):385–410, 1998.
 - [19] J. Preskill. *Quantum Clock Synchronization and Quantum Error Correction*. <http://arxiv.org/archive/quant-ph/0010098>, 2000.
 - [20] B. Schumacher. *Quantum Coding*. Physical Review A, 51(4):2738–2747, 1995.
 - [21] A. M. Steane. *Simple Quantum Error Correcting Codes*. <http://arxiv.org/archive/quant-ph/9605021>, 1996.
 - [22] P. W. Shor. *Scheme for Reducing Decoherence in Quantum Computer Memory*. Physical Review A, 52(4):2493–2496, 1995.
 - [23] C. H. Bennett, T. Mor, and J. Preskill. *The Parity Bit in Quantum Cryptography*. <http://arxiv.org/archive/quant-ph/9604040>, 1996.
- PHYSICAL IMPLEMENTATION OF QUANTUM INFORMATION PROCESSING**
- [24] D. Beckman, A. N. Chari, S. Devabhaktuni, and J. Preskill. *Efficient Networks for Quantum Computing*. <http://arxiv.org/archive/quant-ph/9602016>, 1996.
 - [25] I. L. Chuang, N. Gershenfeld, M. G. Kubinec, D. W. Leung. *Bulk Quantum Computation with Nuclear Magnetic Resonance: Theory and Experiment*. Proceedings of the Royal Society of London A, 454(1969):447–467, 1998.

- [26] D. G. Cory, R. Laflamme, E. Knill, L. Viola, T. F. Havel, N. Boulant, G. Boutis, E. Fortunato, S. Lloyd, R. Martinez, C. Negrevergne, M. Pravia, Y. Scharf, G. Teklemariam, Y. S. Weinstein, and W. H. Zurek. *NMR Based Quantum Information Processing: Achievements and Prospects*. Fortschritte der Physik, 48(9-11):875–907, 2000.
- [27] A. Gershenfeld and I. L. Chuang. *Bulk Spin-Resonance Quantum Computing*. Science, 275:350–356, 1997.
- [28] P. Grangier, G. Reymond, and N. Schlosser. *Implementations of Quantum Computing Using Cavity Quantum Electrodynamics Schemes*. Fortschritte der Physik, 48(9-11):859–874, 2000.
- [29] R. J. Hughes, D. F. V. James, J. J. Gomez, M. S. Gulley, M. H. Holzschreiter, P. G. Kwiat, S. K. Lamoreux, C. G. Peterson, V. D. Sandberg, M. M. Schauer, C. M. Simmons, C. E. Thorburn, D. Tupa, P. Z. Wang, and A. G. White. *The Los Alamos Trapped Ion Quantum Computer Experiment*. Fortschritte der Physik, 46(4-5):329–361, 1998.
- [30] A. Imamoglu. *Quantum computation Using Quantum Dot Spins and Microcavities*. Fortschritte der Physik, 48(9-11):987–997, 2000.
- [31] D. F. V. James. *Quantum Computation with Hot and Cold Ions: An Assessment of Proposed Schemes*. Fortschritte der Physik, 48(9-11):823–837, 2000.
- [32] J. A. Jones. *NMR Quantum Computation: A critical Evaluation*. Fortschritte der Physik, 48(9-11):909–924, 2000.
- [33] G. J. Milburn, S. Schneider, and D. F. V. James. *Ion Trap Quantum Computing with Warm Ions*. Fortschritte der Physik, 48(9-11):801–810, 2000.
- [34] C. Monroe, D. M. Meekhof, B. E. King, W. M. Itano, and D. J. Wineland. *Demonstration of a Fundamental Quantum Logic Gate*. Physical Review Letters, 75(25):4714–4717, 1995.
- [35] J. F. Poyatos, J. I. Cirac, and P. Zoller. *Schemes of Quantum Computations with Trapped Ions*. Fortschritte der Physik, 48(9-11):785–799, 2000.
- [36] A. M. Steane and D. M. Lucas. *Quantum Computing with Trapped Ions, Atoms and Light* Fortschritte der Physik, 48(9-11):839–858, 2000.
- [37] L. M. K. Vandersypen, C. S. Yannoni, M. H. Sherwood, and I. L. Chuang. *Logically Labeled Effective Pure States for Bulk Quantum Computation*. Physical Review Letters, 83(15):3085–3088, 1999.
- [38] D. J. Wineland, C. Monroe, D. M. Meekhof, B. E. King, D. Leibfried, W. M. Itano, J. C. Bergquist, D. Berkeland, J. J. Bollinger, J. Miller. *Quantum State Manipulation of Trapped Atomic Ions*. Proceedings of the Royal Society of London A, 454(1969):411–429, 1998.