

Scientific Publications

Anton Zeilinger

2024

554. G. 't Hooft, W.D. Phillips, A. Zeilinger, R. Allen, J. Baggott, F.R. Bouchet, S.M.G. Cantanhede, L.A.M. Castanedo, A.M. Cetto, A.A. Coley, B.J. Dalton, P. Fahimi, S. Franks, A. Frano, E.S. Fry, S. Goldfarb, K. Langanke, C.F. Matta, D. Nanopoulos, C. Orzel, S. Patrick, V.A.A. Sanghai, I.K. Schuller, O. Shpyrko, S. Lidström, [*The sounds of science—a symphony for many instruments and voices: part II*](#), Phys. Scr. **99**, 052501 (2024).
553. J. Funzalida, J. Kysela, K. Dovzhik, G.B. Lemos, A. Hochrainer, M. Lahiri, A. Zeilinger, [*Quantum state tomography of undetected photons*](#), Phys. Rev. A **109**, 022413 (2024).
552. R. Kindler, J. Handsteiner, J. Kysela, K. Zhu, B. Liu, A. Zeilinger, [*State-independent quantum key distribution*](#), Phys. Rev. A **109**, 012614 (2024).

2023

551. G. Barreto Lemos, R. Lapkiewicz, A. Hochrainer, M. Lahiri, A. Zeilinger, [*One-Photon Measurement of Two-Photon Entanglement*](#), Phys. Rev. Lett. **130**, 090202 (2023).
550. A. Landau, A. Zeilinger, [*Zwiegespräch II: Time in the brain and outside our bodies in the environment*](#), J. Fischer (ed.), Dialoge in der Berlin-Brandenburgischen Akademie der Wissenschaften aus Anlass des Sechzigsten Geburtstags von Christoph Marksches, DeGruyter, Berlin/Boston, 25-31 (2023).

2022

549. A. Hochrainer, M. Lahiri, M. Erhard, M. Krenn, A. Zeilinger, [*Quantum indistinguishability by path identity and with undetected photons*](#), Rev. Mod. Phys. **94**, 025007 (2022).
548. J. Fuenzalida, A. Hochrainer, G. Barreto Lemos, E. Ortega, R. Lapkiewicz, M. Lahiri, A. Zeilinger, [*Resolution of Quantum Imaging with Undetected Photons*](#), Quantum **6**, 646 (2022).

2021

547. S. Ecker, B. Liu, J. Handsteiner, M. Fink, D. Rauch, F. Steinlechner, T. Scheidl, A. Zeilinger, R. Ursin, [*Strategies for achieving high key rates in satellite-based QKD*](#), npj Quantum Inf. **7**, 5 (2021).
546. Č. Brukner, M. Żukowski, A. Zeilinger, [*The essence of entanglement*](#), in „[*Quantum Arrangements. Contributions in Honor of Michael Horne*](#)”, Fundamental Theories of Physics 203, G. Jaeger, D. Simon, A.V. Sergienko, D. Greenberger, A. Zeilinger (eds.), Springer, Cham, 117-138 (2021).
545. Y.-H. Luo, M.-C. Chen, M. Erhard, H.-S. Zhong, D. Wu, H.-Y. Tang, Q. Zhao, X.-L. Wang, K. Fujii, L. Li, N.-L. Liu, K. Nemoto, W.J. Munro, C.-Y. Lu, A. Zeilinger, J.-W. Pan, [*Quantum teleportation of physical qubits into logical code spaces*](#), P. Natl. Acad. Sci. USA **118**, e2026250118 (2021).
544. M. Lahiri, R. Lapkiewicz, A. Hochrainer, G. Barreto Lemos, A. Zeilinger, [*Characterizing mixed-state entanglement through single-photon interference*](#), Phys. Rev. A **104**, 013704 (2021).

2020

543. M. Krenn, M. Erhard, A. Zeilinger, [*Computer-inspired quantum experiments*](#), Nat. Rev. Phys. **2**, 649-661 (2020).
542. J. Kysela, M. Erhard, A. Hochrainer, M. Krenn, A. Zeilinger, [*Path Identity as a Source of High-Dimensional Entanglement*](#), P. Natl. Acad. Sci. USA **117**, 26118-26122 (2020).
541. M. Erhard, M. Krenn, A. Zeilinger, [*Advances in High Dimensional Quantum Entanglement*](#), Nat. Rev. Phys. **2**, 365-381 (2020).
540. X. Gao, M. Erhard, A. Zeilinger, M. Krenn, [*Computer-inspired concept for high-dimensional multipartite quantum gates*](#), Phys. Rev. Lett. **125**, 050501 (2020).
539. G.M. Alexander, R.E. Allen, A. Atala, W. Bowen, A.A. Coley, J.B. Goodenough, M.I. Katsnelson, E.V. Koonin, M. Krenn, L.S. Madsen, M. Måansson, N.P. Mauranyapin, A.I. Melvin, E.M. Rasel, L.E. Reichl, R. Yampolskiy, P.B. Yasskin, A. Zeilinger, S. Lidstrom, [*The sounds of science – a symphony for many instruments and voices*](#), Phys. Scr. **95**, 062501 (2020).
538. S. Wengerowsky, S.K. Joshi, F. Steinlechner, J.R. Zichi, B. Liu, T. Scheidl, S.M. Dobrovolskiy, R. van der Molen, J.W.N. Los, V. Zwillaer, M.A.M. Versteegh, A. Mura, D. Calonico, M. Inguscio, A. Zeilinger, A. Xuereb, R. Ursin, [*Passively stable distribution of polarisation entanglement over 192 km of deployed optical fibre*](#), New Journ. Phys. Quantum Inf. **6**, 5 (2020).

537. M. Krenn, A. Zeilinger, [Predicting research trends with semantic and neural networks with an application in quantum physics](#), P. Natl. Acad. Sci. USA **117**, 1910-1916 (2020).
536. G. Barreto Lemos, R. Lapkiewicz, A. Hochrainer, M. Lahiri, A. Zeilinger, [One-photon measurement of two-photon entanglement](#), arXiv:2009.02851 [quant-ph] (2020). See also [Phys. Rev. A 104, 013704](#) for related theory.

2019

535. M. Lahiri, A. Hochrainer, R. Lapkiewicz, G. Barreto Lemos, A. Zeilinger, [Nonclassicality of induced coherence without induced emission](#), Phys. Rev. A **100**, 053839 (2019).
534. Y.-H. Luo, H.-S. Zhong, M. Erhard, X.-L. Wang, L.-C. Peng, M. Krenn, X. Jiang, L. Li, N.-L. Liu, C.-Y. Lu, A. Zeilinger, J.-W. Pan, [Quantum teleportation in high dimensions](#), Phys. Rev. Lett. **123**, 070505 (2019).
533. S. Wengerowsky, S.K. Joshi, F. Steinlechner, J.R. Zichi, S.M. Dobrovolskiy, R. v. d. Molen, J.W.N. Los, V. Zwiller, M.A.M. Versteegh, A. Mura, D. Calonico, M. Inguscio, H. Hübel, A. Zeilinger, A. Xuereb, R. Ursin, [In-field entanglement distribution over a 96 km-long submarine optical fibre](#), P. Natl. Acad. Sci. USA **116**, 6684-6688 (2019).
532. X. Gu, L. Chen, A. Zeilinger, M. Krenn, [Quantum experiments and graphs III. High-dimensional and multiparticle entanglement](#), Phys. Rev. A **99**, 032338 (2019).
531. X. Gu, M. Krenn, M. Erhard, A. Zeilinger, [Quantum experiments and graphs II: Quantum interference, computation, and state generation](#), P. Natl. Acad. Sci. USA **116**, 4147-4155 (2019).
530. X. Gao, M. Krenn, J. Kysela, A. Zeilinger, [Arbitrary d-dimensional Pauli X gates of a flying qudit](#), Phys. Rev. A **99**, 023825 (2019).
529. M. Erhard, M. Krenn, X. Gu, M. Malik, A. Zeilinger, [Quantum Information Experiments with Multiple Photons in One and High-Dimensions: Concepts and Experiments](#), in “Quantum Information and Measurement (QIM) V: Quantum Technologies”, OSA Technical Digest, Optica Publishing Group, T3A.3 (2019).
528. J. Fuenzalida, A. Hochrainer, G.B. Lemos, M. Lahiri, A. Zeilinger, [Resolution in Quantum Imaging with Undetected Photons](#), in “Frontiers in Optics + Laser Science APS/DLS”, OSA Technical Digest, Optica Publishing Group, JW3A.103 (2019).

2018

527. M. Erhard, M. Malik, M. Krenn, A. Zeilinger, [*Experimental Greenberger–Horne–Zeilinger entanglement beyond qubits*](#), Nat. Photon. **12**, 759–764 (2018).
526. D. Rauch, J. Handsteiner, A. Hochrainer, J. Gallicchio, A.S. Friedman, C. Leung, B. Liu, L. Bulla, S. Ecker, F. Steinlechner, R. Ursin, B. Hu, D. Leon, C. Benn, A. Ghedina, M. Cecconi, A.H. Guth, D.I. Kaiser, T. Scheidl, A. Zeilinger, [*Cosmic Bell Test Using Random Measurement Settings from High-Redshift Quasars*](#), Phys. Rev. Lett. **121**, 080403 (2018).
525. C. Abellán, A. Acín, A. Alarcón, O. Alibart, C.K. Andersen, F. Andreoli, A. Beckert, F.A. Beduini, A. Bendersky, M. Bentivegna, P. Bierhorst, D. Burchardt, A. Cabello, J. Cariñe, S. Carrasco, G. Carvacho, D. Cavalcanti, R. Chaves, J. Cortés-Vega, A. Cuevas, A. Delgado, H. de Riedmatten, C. Eichler, P. Farrera, J. Fuenzalida, M. García-Matos, R. Garthoff, S. Gasparinetti, T. Gerrits, F. Ghafari Jouneghani, S. Glancy, E.S. Gómez, P. González, J.-Y. Guan, J. Handsteiner, J. Heinsoo, G. Heinze, A. Hirschmann, O. Jiménez, F. Kaiser, E. Knill, L.T. Knoll, S. Krinner, P. Kurpiers, M.A. Larotonda, J.-Å. Larsson, A. Lenhard, H. Li, M.-H. Li, G. Lima, B. Liu, Y. Liu, I.H. López Grande, T. Lunghi, X. Ma, O.S. Magaña-Loaiza, P. Magnard, A. Magnoni, M. Martí-Prieto, D. Martínez, P. Mataloni, A. Mattar, M. Mazzera, R.P. Mirin, M.W. Mitchell, S. Nam, M. Oppliger, J.-W. Pan, R.B. Patel, G.J. Pryde, D. Rauch, K. Redeker, D. Rieländer, M. Ringbauer, T. Roberson, W. Rosenfeld, Y. Salathé, L. Santodonato, G. Sauder, T. Scheidl, C.T. Schmiegelow, F. Sciarrino, A. Seri, L.K. Shalm, S.-C. Shi, S. Slussarenko, M.J. Stevens, S. Tanzilli, F. Toledo, J. Tura, R. Ursin, P. Vergyris, V.B. Verma, T. Walter, A. Wallraff, Z. Wang, H. Weinfurter, M.M. Weston, A.G. White, C. Wu, G.B. Xavier, L. You, X. Yuan, A. Zeilinger, Q. Zhang, W. Zhang, J. Zhong, [*Challenging local realism with human choices*](#), Nature **557**, 212–216 (2018).
524. S. Koduru Joshi, J. Pienaar, T.C. Ralph, L. Cacciapuoti, W. McCutcheon, J. Rarity, D. Giggenbach, J.G. Lim, V. Makarov, I. Fuentes, T. Scheidl, E. Beckert, M. Bourennane, D.E. Bruschi, A. Cabello, J. Capmany, A. Carrasco-Casado, E. Diamanti, M. Dušek, D. Elser, A. Gulinatti, R.H. Hadfield, T. Jennewein, R. Kaltenbaek, M.A. Krainak, H.-K. Lo, C. Marquardt, G. Milburn, M. Peev, A. Poppe, V. Pruneri, R. Renner, C. Salomon, J. Skaar, N. Solomos, M. Stipčević, J.P. Torres, M. Toyoshima, P. Villoresi, I. Walmsley, G. Weihs, H. Weinfurter, A. Zeilinger, M. Żukowski, R. Ursin, [*Space QUEST mission proposal: experimentally testing decoherence due to gravity*](#), New J. Phys. **20**, 063016 (2018).
523. X. Gu, M. Krenn, M. Erhard, A. Zeilinger, [*Gouy Phase Radial Mode Sorter for Light: Concepts and Experiments*](#), Phys. Rev. Lett. **120**, 103601 (2018).
522. A.A. Melnikov, H. Poulsen Nautrup, M. Krenn, V. Dunjko, M. Tiersch, A. Zeilinger, H.J. Briegel, [*Active learning machine learns to create new quantum experiments*](#), P. Natl. Acad. Sci. USA **115**, 1221–1226 (2018). Honored with the 2018 PNAS Cozzarelli Prize (Class I).

521. M. Erhard, R. Fickler, M. Krenn, A. Zeilinger, [Twisted Photons: New Quantum Perspectives in High Dimensions](#), Light: Science & Applications **7**, e17146 (2018). Selected as outstanding paper in 2019 for Light: Science & Applications (LSA).
520. A. Zeilinger, [Quantum teleportation, onwards and upwards](#), Nat. Phys. **14**, 3 (2018).
519. R. Fickler, M. Krenn, A. Zeilinger, [Mit Lichtschrauben ans Quantenlimit](#), Phys. Unserer Zeit **49**, 12 (2018).
518. S.-K. Liao, W.-Q. Cai, J. Handsteiner, B. Liu, J. Yin, L. Zhang, D. Rauch, M. Fink, J.-G. Ren, W.-Y. Liu, Y. Li, Q. Shen, Y. Cao, F.-Z. Li, J.-F. Wang, Y.-M. Huang, L. Deng, T. Xi, L. Ma, T. Hu, L. Li, N.-L. Liu, F. Koidl, P. Wang, Y.-A. Chen, X.-B. Wang, M. Steindorfer, G. Kirchner, C.-Y. Lu, R. Shu, R. Ursin, T. Scheidl, C.-Z. Peng, J.-Y. Wang, A. Zeilinger, J.-W. Pan, [Satellite-relayed intercontinental quantum network](#), Phys. Rev. Lett. **120**, 030501 (2018).
517. M. Krenn, A. Zeilinger, [On Small Beams with Large Topological Charge II: Photons, Electrons and Gravitational Waves](#), New J. Phys. **20**, 063006 (2018).

2017

516. A. Zeilinger, [Light for the quantum. Entangled photons and their applications: a very personal perspective](#), Phys. Scr. **92**, 072501 (2017). Most downloaded paper on the Physica Scripta website (March 2020).
515. J. Handsteiner, A.S. Friedman, D. Rauch, J. Gallicchio, B. Liu, H. Hosp, J. Kofler, D. Bricher, M. Fink, C. Leung, A. Mark, H.T. Nguyen, I. Sanders, F. Steinlechner, R. Ursin, S. Wengerowsky, A.H. Guth, D.I. Kaiser, T. Scheidl, A. Zeilinger, [Cosmic Bell Test: Measurement Settings from Milky Way Stars](#), Phys. Rev. Lett. **118**, 060401 (2017). Highlighted as a PRL editor's suggestion.
514. A. Babazadeh, M. Erhard, F. Wang, M. Malik, R. Nouroozi, M. Krenn, A. Zeilinger, [High-Dimensional Single-Photon Quantum Gates: Concepts and Experiments](#), Phys. Rev. Lett. **119**, 180510 (2017).
513. F. Wang, M. Erhard, A. Babazadeh, M. Malik, M. Krenn, A. Zeilinger, [Generation of the Complete Four-dimensional Bell Basis](#), Optica **4**, 1462-1467 (2017).
512. A. Zeilinger, [New Dimensions for Entangled Photons: The Role of Information](#), in “[Quantum \[Un\]Speakables II. Half a Century of Bell's Theorem](#)”, R. Bertlmann, A. Zeilinger (eds.), Springer, Cham, 503-518 (2017).
511. M. Lahiri, A. Hochrainer, R. Lapkiewicz, G.B. Lemos, A. Zeilinger, [Twin Photon Correlations in Single-Photon Interference](#), Phys. Rev. A **96**, 013822 (2017).

510. S. Alipour, M. Krenn, A. Zeilinger, [Quantum gate description for induced coherence without induced emission and related phenomena](#), Phys. Rev. A **96**, 042317 (2017).
509. A. Hochrainer, M. Lahiri, R. Lapkiewicz, G.B. Lemos, A. Zeilinger, [Interference Fringes Controlled by Non-Interfering Photons](#), Optica **4**, 341-344 (2017).
508. M. Krenn, A. Hochrainer, M. Lahiri, A. Zeilinger, [Erratum: Entanglement by Path Identity \[Phys. Rev. Lett. 118, 080401 \(2017\)\]](#), Phys. Rev. Lett. **118**, 259902 (2017).
507. M. Krenn, A. Hochrainer, M. Lahiri, A. Zeilinger, [Entanglement by Path Identity](#), Phys. Rev. Lett. **118**, 080401 (2017). [Erratum](#) 2017.
506. A. Hochrainer, M. Lahiri, R. Lapkiewicz, G. Barreto Lemos, A. Zeilinger, [Quantifying the Momentum Correlation between Two Light Beams by Detecting One](#), P. Natl. Acad. Sci. USA **114**, 1508-1511 (2017).
505. M. Lahiri, A. Hochrainer, R. Lapkiewicz, G. Barreto Lemos, A. Zeilinger, [Partial Polarization by Quantum Distinguishability](#), Phys. Rev. A **95**, 033816 (2017).
504. M. Erhard, M. Malik, A. Zeilinger, [A quantum router for high-dimensional entanglement](#), Quantum Sci. Technol. **2**, 014001 (2017). Selected as one of ten highlights of the first year of the journal's publication.
503. M. Krenn, M. Malik, M. Erhard, A. Zeilinger, [Orbital angular momentum of photons and the entanglement of Laguerre-Gaussian modes](#), Phil. Trans. R. Soc. A **375**, 20150442 (2017).
502. M. Krenn, X. Gu, A. Zeilinger, [Quantum Experiments and Graphs: Multiparty States as coherent superpositions of Perfect Matchings](#), Phys. Rev. Lett. **119**, 240403 (2017).

2016

501. M. Krenn, M. Malik, T. Scheidl, R. Ursin, A. Zeilinger, [Quantum Communication with Photons](#), in “[Optics in Our Time](#)”, M.D. Al-Amri, M. El-Gomati, M. Suhail Zubairy (eds.), Springer, Cham, 455-482 (2016).
499. R. Fickler, G.T. Campbell, B.C. Buchler, P.K. Lam, A. Zeilinger, [Quantum entanglement of angular momentum states with quantum numbers up to 10010](#), P. Natl. Acad. Sci. USA **113**, 13642-13647 (2016).
500. M. Krenn, J. Handsteiner, M. Fink, R. Fickler, R. Ursin, M. Malik, A. Zeilinger, [Twisted Light Transmission over 143 kilometers](#), P. Natl. Acad. Sci. USA **113**, 13648-13653 (2016).

498. N. Tischler, M. Krenn, R. Fickler, X. Vidal, A. Zeilinger, G. Molia-Terriza, [*Quantum optical rotary dispersion*](#), Sci. Adv. **2**, e1601306 (2016).
497. F. Schlederer, M. Krenn, R. Fickler, M. Malik, A. Zeilinger, [*Cyclic transformation of orbital angular momentum modes*](#), New J. Phys. **18**, 043019 (2016).
496. M. Malik, M. Erhard, M. Huber, M. Krenn, R. Fickler, A. Zeilinger, [*Multi-photon entanglement in high dimensions*](#), Nat. Photon. **10**, 248-252 (2016).
495. X.-S. Ma, J. Kofler, A. Zeilinger, [*Delayed-choice gedanken experiments and their realizations*](#), Rev. Mod. Phys. **88**, 015005 (2016).
494. M. Krenn, N. Tischler, A. Zeilinger, [*On Small Beams with Large Topological Charge*](#), New J. Phys. **18**, 033012 (2016).
493. M. Krenn, M. Malik, R. Fickler, R. Lapkiewicz, A. Zeilinger, [*Automated Search for new Quantum Experiments*](#), Phys. Rev. Lett. **116**, 090405 (2016). Highlighted as a PRL editor's suggestion.
492. C. Pacher, A. Abidin, T. Lorünser, M. Peev, R. Ursin, A. Zeilinger, J.-Å. Larsson, [*Attacks on quantum key distribution protocols that employ non-ITS authentication*](#), Quantum Inf. Process. **15**, 327-362 (2016).
491. M. Lahiri, C. Reimer, A. Zeilinger, [*Quantum interference and imaging*](#), in “[*Frontiers in Modern Optics*](#)”, course 190 of the series “[*Proc. of the International School of Physics ‘Enrico Fermi’*](#)”, D. Faccio, J. Dudley, M. Clerici (eds.), IOS, Amsterdam & SIF, Bologna, 159-170 (2016).
490. W.P. Schleich, K.S. Ranade, C. Anton, M. Arndt, M. Aspelmeyer, M. Bayer, G. Berg, T. Calarco, H. Fuchs, E. Giacobino, M. Grassl, P. Hänggi, W.M. Heckl, I.-V. Hertel, S. Huelga, F. Jelezko, B. Keimer, J.P. Kotthaus, G. Leuchs, N. Lütkenhaus, U. Maurer, T. Pfau, M.B. Plenio, E.M. Rasel, O. Renn, C. Silberhorn, J. Schmiedmayer, D. Schmitt-Landsiedel, K. Schönhammer, A. Ustinov, P. Walther, H. Weinfurter, E. Welzl, R. Wiesendanger, S. Wolf, A. Zeilinger, P. Zoller, [*Quantum technology: from research to application*](#), Appl. Phys. B **122**, 130 (2016).
489. A. Zeilinger, *Naturwissenschaft und Religion: ein Scheinkonflikt. Gewidmet Herrn Erzbischof Franz Lackner aus Anlass seines 60. Geburtstages und seines Silbernen Priesterjubiläums*. In “[*Vernunft und Glauben. Gottessuche heute*](#)”, H. Hofer (ed.), Verlag Anton Pustet, Salzburg, 189-201 (2016).

2015

488. M. Giustina, M.A.M. Versteegh, S. Wengerowsky, J. Handsteiner, A. Hochrainer, K. Phelan, F. Steinlechner, J. Kofler, J.-A. Larsson, C. Abellán, W. Amaya, V. Pruneri, M.W. Mitchell, J. Beyer, T. Gerrits, A.E. Lita, L. Shalm, S.W. Nam, T. Scheidl, R. Ursin, B. Wittmann, A. Zeilinger, [Significant-loophole-free test of Bell's theorem with entangled photons](#), Phys. Rev. Lett. **115**, 250401 (2015). This paper was ranked as a “hot paper” by Thomson Reuters’ Web of Science, placing it in the top 0.1% of papers in the academic field of physics. It is also a WoK “highly cited paper”.
487. C. Schaeff, R. Polster, M. Huber, S. Ramelow, A. Zeilinger, [Experimental access to higher-dimensional entangled quantum systems using integrated optics](#), Optica **2**, 523-529 (2015).
486. M.J. Padgett, F.M. Miatto, M. Lavery, A. Zeilinger, R.W. Boyd, [Divergence of an orbital-angular-momentum-carrying beam upon propagation](#), New J. Phys. **17**, 023011 (2015).
485. M. Lahiri, R. Lapkiewicz, G. Barreto Lemos, A. Zeilinger, [Theory of Quantum Imaging with Undetected Photons](#), Phys. Rev. A **92**, 013832 (2015).
484. T. Herbst, T. Scheidl, M. Fink, J. Handsteiner, B. Wittmann, R. Ursin, A. Zeilinger, [Teleportation of entanglement over 143 km](#), P. Natl. Acad. Sci. USA **112**, 14202-14205 (2015).
483. M. Krenn, J. Handsteiner, M. Fink, R. Fickler, A. Zeilinger, [Twisted photon entanglement through turbulent air across Vienna](#), P. Natl. Acad. Sci. USA **112**, 14197-14201 (2015).
482. A. Zeilinger, [Preamble – Supervisor’s Foreword](#), in R. Fickler, “[Quantum Entanglement of Complex Structures of Photons](#)”, part of the book series “[Springer Theses. Recognizing Outstanding Ph.D. Research](#)”, Springer, Cham, 1-4 (2015).

2014

481. A. Zeilinger, [Eugene Wigner – A Gedanken Pioneer of the Second Quantum Revolution](#), EPJ Web Conf. **78**, 01010 (2014).
480. M. Keller, M. Kotyrba, F. Leupold, M. Singh, M. Ebner, A. Zeilinger, [Bose-Einstein condensate of metastable helium for quantum correlation experiments](#), Phys. Rev. A **90**, 063607 (2014).

479. M. Krenn, R. Fickler, M. Fink, J. Handsteiner, M. Malik, T. Scheidl, R. Ursin, A. Zeilinger, [Communication with spatially modulated light through turbulent air across Vienna](#), New J. Phys. **16**, 113028 (2014). This paper was ranked as a “highly cited paper” by Thomson Reuters’ Web of Science, placing it in the 1% of the academic field of physics based on a highly cited threshold for the field and publication year.
478. R. Fickler, R. Lapkiewicz, M. Huber, M.P.J. Lavery, M.P. Padgett, A. Zeilinger, [Interface between path and OAM entanglement for high-dimensional photonic quantum information](#), Nat. Commun. **5**, 4502 (2014).
477. G.B. Lemos, V. Borish, G.D. Cole, S. Ramelow, R. Lapkiewicz, A. Zeilinger, [Quantum Imaging with Undetected Photons](#), Nature **512**, 409-412 (2014).
476. R. Fickler, R. Lapkiewicz, S. Ramelow, A. Zeilinger, [Quantum Entanglement of Complex Photon Polarization Patterns in Vector Beams](#), Phys. Rev. A **89**, 060301(R) (2014).
475. M. Krenn, M. Huber, R. Fickler, R. Lapkiewicz, S. Ramelow, A. Zeilinger, [Generation and confirmation of a \(100 × 100\)-dimensional entangled quantum system](#), P. Natl. Acad. Sci. USA **111**, 6122-6123 (2014).
474. X. Ma, B. Dakić, S. Kropatschek, W. Naylor, Y. Chan, Z. Gong, L. Duan, A. Zeilinger, P. Walther, [Towards photonic quantum simulation of ground states of frustrated Heisenberg spin systems](#), Sci. Rep. **4**, 3583 (2014).
473. T. Scheidl, F. Tiefenbacher, R. Prevedel, F. Steinlechner, R. Ursin, A. Zeilinger, [Crossed-crystal scheme for femtosecond-pulsed entangled photon generation in periodically poled potassium titanyl phosphate](#), Phys. Rev. A. **89**, 042324 (2014).
472. R. Alléaume, C. Branciard, J. Bouda, T. Debuisschert, M. Dianati, N. Gisin, M. Godfrey, P. Grangier, T. Länger, N. Lütkenhaus, C. Monyk, P. Painchaud, M. Peev, A. Poppe, T. Pornin, J. Rarity, R. Renner, G. Ribordy, M. Riguidel, L. Salvail, A. Shields, H. Weinfurter, A. Zeilinger, [Using quantum key distribution for cryptographic purposes: A survey](#), Theoret. Comp. Sci. **560**, 62-81 (2014).
471. T. Herbst, X. Ma, T. Scheidl, D. Wang, W. Naylor, B. Wittmann, J. Kofler, E. Anisimova, V. Makarov, T. Jennewein, R. Ursin, A. Zeilinger, [Quantum teleportation over a 143 km free-space link](#), in “[Proc. International Conference on Space Optics – ICSO 2014](#)”, Proc. of SPIE **10563**, 105630V-1 (2014).
470. A. Zeilinger, [Introduction to the Proceedings of “Horizons of Quantum Physics” 2012](#), Found. Phys. **44**, 449-451 (2014).

2013

469. W.N. Plick, M. Krenn, R. Fickler, S. Ramelow, A. Zeilinger, [*Quantum orbital angular momentum of elliptically-symmetric light*](#), Phys. Rev. A **87**, 033806 (2013).
468. M. Schlosshauer, J. Kofler, A. Zeilinger, [*The interpretation of quantum mechanics: from disagreement to consensus?*](#), Ann. Phys. **525**, A51-A54 (2013).
467. X. Ma, J. Kofler, A. Qarry, N. Tetik, T. Scheidl, R. Ursin, S. Ramelow, T. Herbst, L. Ratschbacher, A. Fedrizzi, T. Jennewein, A. Zeilinger, [*Quantum erasure with causally disconnected choice*](#), P. Natl. Acad. Sci. USA **110**, 1221-1226 (2013).
466. M. Giustina, A. Mech, S. Ramelow, B. Wittmann, J. Kofler, J. Beyer, A. Lita, B. Calkins, T. Gerrits, S.W. Nam, R. Ursin, A. Zeilinger, [*Bell violation using entangled photons without the fair-sampling assumption*](#), Nature **497**, 227-230 (2013). This paper was ranked as a “highly cited paper” by Thomson Reuters’ Web of Science, placing it in the 1% of the academic field of physics based on a highly cited threshold for the field and publication year.
465. R. Fickler, M. Krenn, R. Lapkiewicz, S. Ramelow, A. Zeilinger, [*Real-Time Imaging of Quantum Entanglement*](#), Sci. Rep. **3**, 1914 (2013).
464. S. Ramelow, A. Mech, M. Giustina, S. Gröblacher, W. Wieczorek, A. Lita, B. Calkins, T. Gerrits, S. Woo Nam, A. Zeilinger, R. Ursin, [*Highly efficient heralding of entangled single photons*](#), Opt. Express **21**, 6707-6717 (2013).
463. M. Schlosshauer, J. Kofler, A. Zeilinger, [*A Snapshot of Foundational Attitudes Towards Quantum Mechanics*](#), Stud. Hist. Phil. Mod. Phys. **44**, 222-230 (2013).
462. G.A.D. Briggs, J.N. Butterfield, A. Zeilinger, [*The Oxford Questions on the foundations of quantum physics*](#), Proc. R. Soc. A **469**, 20130299 (2013).
461. M. Krenn, R. Fickler, M. Huber, R. Lapkiewicz, W.N. Plick, S. Ramelow, A. Zeilinger, [*Entangled singularity patterns of photons in Ince-Gauss modes*](#), Phys. Rev. A **87**, 012326 (2013).
460. R. Lapkiewicz, P. Li, C. Schaeff, N.K. Langford, S. Ramelow, M. Wiesniak, A. Zeilinger, [*Comment on "Two Fundamental Experimental Tests of Nonclassicality with Qutrits"*](#), arXiv:1305.5529 [quant-ph] (2013).
459. W.N. Plick, R. Lapkiewicz, S. Ramelow, A. Zeilinger, [*The Forgotten Quantum Number: A short note on the radial modes of Laguerre-Gauss beams*](#), arXiv:1306.6517 [quant-ph] (2013).

2012

458. B. Dakić, Y.O. Lipp, X. Ma, M. Ringbauer, S. Kropatschek, S. Barz, T. Paterek, V. Vedral, A. Zeilinger, Č. Brukner, P. Walther, [Quantum discord as resource for remote state preparation](#), Nat. Phys. **8**, 666-670 (2012). This paper was ranked as a “highly cited paper” by Thomson Reuters’ Web of Science, placing it in the 1% of the academic field of physics based on a highly cited threshold for the field and publication year.
457. R. Fickler, R. Lapkiewicz, W.N. Plick, M. Krenn, C. Schaeff, S. Ramelow, A. Zeilinger, [Quantum Entanglement of High Angular Momenta](#), Science **338**, 640-643 (2012). This paper was ranked as a “highly cited paper” by Thomson Reuters’ Web of Science, placing it in the 1% of the academic field of physics based on a highly cited threshold for the field and publication year. It was also selected as one of Physics World magazine’s TOP 10 breakthroughs 2012. Also featured in DPG’s Physik Journal.
456. X.-S. Ma, S. Kropatschek, W. Naylor, T. Scheidl, J. Kofler, T. Herbst, A. Zeilinger, R. Ursin, [Experimental quantum teleportation over a high-loss free-space channel](#), Opt. Express **20**, 23126-23137 (2012).
455. X.-S. Ma, T. Herbst, T. Scheidl, D. Wang, S. Kropatschek, W. Naylor, B. Wittmann, A. Mech, J. Kofler, E. Anisimova, V. Makarov, T. Jennewein, R. Ursin, A. Zeilinger, [Quantum teleportation over 143 kilometres using active feed-forward](#), Nature **489**, 269-273 (2012). This paper was ranked as a “highly cited paper” by Thomson Reuters’ Web of Science, placing it in the 1% of the academic field of physics based on a highly cited threshold for the field and publication year.
454. J. Kofler, M. Singh, M. Ebner, M. Keller, M. Kotyrba, A. Zeilinger, [Einstein-Podolsky-Rosen correlations from colliding Bose-Einstein condensates](#), Phys. Rev. A **86**, 032115 (2012).
453. J.-W. Pan, Z.-B. Chen, C.-Y. Lu, H. Weinfurter, A. Zeilinger, M. Żukowski, [Multiphoton entanglement and interferometry](#), Rev. Mod. Phys. **84**, 777-838 (2012). This paper was ranked as a “highly cited paper” by Thomson Reuters’ Web of Science, placing it in the 1% of the academic field of physics based on a highly cited threshold for the field and publication year.
452. B. Wittmann, S. Ramelow, F. Steinlechner, N.K. Langford, N. Brunner, H.M. Wiseman, R. Ursin, A. Zeilinger, [Loophole-free Einstein-Podolsky-Rosen experiment via quantum steering](#), New J. Phys. **14**, 053030 (2012).
451. M.A. Hohensee, B. Estey, P. Hamilton, A. Zeilinger, H. Mueller, [Force-Free Gravitational Redshift: Proposed Gravitational Aharonov-Bohm Experiment](#), Phys. Rev. Lett. **108**, 230404 (2012).
450. C. Schaeff, R. Polster, R. Lapkiewicz, R. Fickler, S. Ramelow, A. Zeilinger, [Scalable fiber integrated source for higher-dimensional path-entangled photonic quNits](#), Opt. Express **20**, 16145-16153 (2012).

449. X.-S. Ma, S. Zotter, J. Kofler, R. Ursin, T. Jennewein, Č. Brukner, A. Zeilinger, [*Experimental delayed-choice entanglement swapping*](#), Nat. Phys. **8**, 480-485 (2012).
448. M. Aspelmeyer, Č. Brukner, A. Zeilinger, [*Festschrift Dedicated to Daniel Greenberger and Helmut Rauch - Editorial*](#), Found. Phys. **42**, 1-3 (2012).
447. S. Ramelow, A. Fedrizzi, A. Poppe, N.K. Langford, A. Zeilinger, [*Polarization-entanglement-conserving frequency conversion of photons*](#), Phys. Rev. A **85**, 013845 (2012).
446. S. Barz, E. Kashefi, A. Broadbent, J. Fitzsimons, A. Zeilinger, P. Walther, [*Demonstration of Blind Quantum Computing*](#), Science **335**, 303-307 (2012).
445. X. Ma, B. Dakić, S. Kropatschek, W. Naylor, Y.-H. Chan, Z.-X. Gong, L.-M. Duan, A. Zeilinger, P. Walther, [*Photonic quantum simulation of ground state configurations of Heisenberg square and checkerboard lattice spin systems*](#), arXiv:1205.2801 [quant-ph] (2012).

2011

444. X.-S. Ma, S. Zotter, N. Tetik, A. Qarry, T. Jennewein, A. Zeilinger, [*A high-speed tunable beam splitter for feed-forward photonic quantum information processing*](#), Opt. Express **19**, 22723-22730 (2011).
443. T. Fujii, S. Matsuo, N. Hatakenaka, S. Kurihara, A. Zeilinger, [*Quantum circuit analog of the dynamical Casimir effect*](#), Phys. Rev. B **84**, 174521 (2011).
442. N.K. Langford, S. Ramelow, R. Prevedel, W.J. Munro, G.J. Milburn, A. Zeilinger, [*Efficient quantum computing using coherent photon conversion*](#), Nature **478**, 360-363 (2011).
441. M. Sasaki, M. Fujiwara, H. Ishizuka, W. Klaus, K. Wakui, M. Takeoka, S. Miki, T. Yamashita, Z. Wang, A. Tanaka, K. Yoshino, Y. Nambu, S. Takahashi, A. Tajima, A. Tomita, T. Domeki, T. Hasegawa, Y. Sakai, H. Kobayashi, T. Asai, K. Shimizu, T. Tokura, T. Tsurumaru, M. Matsui, T. Honjo, K. Tamaki, H. Takesue, Y. Tokura, J.F. Dynes, A.R. Dixon, A.W. Sharpe, Z.L. Yuan, A.J. Shields, S. Uchikoga, M. Legré, S. Robyr, P. Trinkler, L. Monat, J.-B. Page, G. Ribordy, A. Poppe, A. Allacher, O. Maurhart, T. Länger, M. Peev, A. Zeilinger, [*Field test of quantum key distribution in the Tokyo QKD Network*](#), Opt. Express **19**, 10387-10409 (2011). This paper was ranked as a “highly cited paper” by Thomson Reuters’ Web of Science, placing it in the 1% of the academic field of physics based on a highly cited threshold for the field and publication year.
440. R. Lapkiewicz, P. Li, C. Schaeff, N.K. Langford, S. Ramelow, M. Wiesniak, A. Zeilinger, [*Experimental non-classicality of an indivisible quantum system*](#), Nature **474**, 490-493 (2011).

439. X.-S. Ma, B. Dakić, W. Naylor, A. Zeilinger, P. Walther, [Quantum simulation of the wavefunction to probe frustrated Heisenberg spin systems](#), Nat. Phys. **7**, 399-405 (2011).
438. M. Wiesniak, T. Paterek, A. Zeilinger, [Entanglement in mutually unbiased bases](#), New J. Phys. **13**, 053047 (2011).
437. X.-S. Ma, S. Zotter, J. Kofler, T. Jennewein, A. Zeilinger, [Experimental generation of single photons via active multiplexing](#), Phys. Rev. A **83**, 043814 (2011).
436. C. Pernechele, F. Tamburini, T. Jennewein, A. Zeilinger, [An all-spheric unobstructed optical terminal for free-space quantum communication](#), in “[Optical Design and Engineering IV](#)”, L. Mazuray, R. Wartmann, A. Wood, J.-L.M. Tissot, J.M. Raynor (eds.), Proc. of SPIE **8167**, 81671E (2011).
434. R. Fickler, P. Li, R. Lapkiewicz, M. Krenn, C. Schaeff, M. Wiesniak, S. Ramelow, A. Zeilinger, [Entanglement of very high orbital angular momentum](#), in “Frontiers in Optics 2011/Laser Science XXVII”, OSA Technical Digest, Optica Publishing Group, LThC1 (2011).

2010

433. J. Kofler, A. Zeilinger, [Quantum Information and Randomness](#), Eur. Rev. **18**, 469-480 (2010).
432. T. Scheidl, R. Ursin, J. Kofler, S. Ramelow, X. Ma, T. Herbst, L. Ratschbacher, A. Fedrizzi, N.K. Langford, T. Jennewein, A. Zeilinger, [Violation of local realism with freedom of choice](#), P. Natl. Acad. Sci. USA **104**, 19708-19713 (2010).
431. S. Barz, G. Cronenberg, A. Zeilinger, P. Walther, [Heralded generation of entangled photon pairs](#), Nat. Photon. **4**, 553-556 (2010).
430. T. Paterek, J. Kofler, R. Prevedel, P. Klimek, M. Aspelmeyer, A. Zeilinger, Č. Brukner, [Logical independence and quantum randomness](#), New J. Phys. **12**, 013019 (2010). This article was chosen for IOP selected highlight in Europhys. News **41**/2, 10 (2010).

2009

429. 435. S. Ramelow, L. Ratschbacher, A. Fedrizzi, N.K. Langford, A. Zeilinger, [Discrete, Tunable Color Entanglement](#), Phys. Rev. Lett. **103**, 25360 (2009).
428. P. Badziag, Č. Brukner, W. Laskowski, T. Paterek, M. Żukowski, [Experimentally accessible geometrical separability criteria](#), Phys. Scr. **2009**, 014002 (2009). Topical issue of Physica Scripta; Proceedings of the 15th Central European Workshop on Quantum Optics.

427. M. Hentschel, H. Hübel, A. Poppe, A. Zeilinger, [Three-color Sagnac source of polarization-entangled photon pairs](#), Opt. Express **17**, 23153-23159 (2009).
426. M. Peev, C. Pacher, T. Lorünser, M. Noelle, A. Poppe, A. Zeilinger, [Response to “Vulnerability of a novel protocol-authentication ruling out a man-in-the middle attack in quantum cryptography”](#), Int. J. Quantum Inf. **7**, 1401-1407 (2009).
425. X. Ma, A. Quarry, J. Kofler, T. Jennewein, A. Zeilinger, [Experimental violation of a Bell inequality with two different degrees of freedom of entangled particle pairs](#), Phys. Rev. A **79**, 042101 (2009).
424. M. Arndt, M. Aspelmeyer, A. Zeilinger, [How to extend quantum experiments.](#) Fortschritte Phys. **57**, 1153-1162 (2009).
423. R. Prevedel, G. Cronenberg, M.S. Tame, M. Paternostro, P. Walther, M.S. Kim, A. Zeilinger, [Experimental Realization of Dicke States of up to Six Qubits for Multiparty Quantum Networking](#), Phys. Rev. Lett. **103**, 020503 (2009).
422. T. Scheidl, R. Ursin, A. Fedrizzi, S. Ramelow, X.-S. Ma, T. Herbst, R. Prevedel, L. Ratschbacher, J. Kofler, T. Jennewein, A. Zeilinger, [Feasibility of 300 km quantum key distribution with entangled states](#), New J. Phys. **11**, 085002 (2009).
421. Č. Brukner, A. Zeilinger, [Information Invariance and Quantum Probabilities](#), Found. Phys. **39**, 677-689 (2009).
420. M. Peev, C. Pacher, R. Alléaume, C. Barreiro, J. Bouda, W. Boxleitner, T. Debuisschert, E. Diamanti, M. Dianati, J.F. Dynes, S. Fasel, S. Fossier, M. Fuerst, J.D. Gautier, O. Gay, N. Gisin, P. Grangier, A. Happe, Y. Hasani, M. Hentschel, H. Hübel, G. Humer, T. Laenger, M. Legré, R. Lieger, J. Lodewyck, T. Lorünser, N. Lütkenhaus, A. Marhold, T. Matyus, O. Maurhardt, L. Monat, S. Nauerth, J.B. Page, A. Poppe, E. Querasser, G. Ribordy, S. Robyr, L. Salvail, A.W. Sharpe, A.J. Shields, D. Stucki, M. Suda, C. Tamas, T. Themel, R.T. Thew, Y. Thoma, A. Treiber, P. Trinkler, R. Tualle-Bouri, F. Vannel, N. Walenta, H. Weier, H. Weinfurter, I. Wimberger, Z.L. Yuan, H. Zbinden, A. Zeilinger, [The SECOQC quantum key distribution network in Vienna](#), New J. Phys. **11**, 075001 (2009).
419. A. Treiber, A. Poppe, M. Hentsche, T. Lorünser, H. Hübel, A. Zeilinger, [Reliable hands-off entanglement-based QKD system for fiber networks](#), in “[European Quantum Electronics Conference. Proceedings CLEO/Europe and EQEC 2009 Conference Digest](#)”, Optica Publishing Group, ED_P4 (2009).
418. T. Jennewein, R. Ursin, M. Aspelmeyer, A. Zeilinger, [Performing high-quality multi-photon experiments with parametric down-conversion](#), J. Phys. B: At. Mol. Opt. Phys. **42**, 114008 (2009).

417. A. Fedrizzi, R. Ursin, A. Zeilinger, [Transmission of Entangled Photons over a High-Loss Free-Space Channel](#), www.2Physics.com (May 30, 2009).
416. A. Fedrizzi, R. Ursin, T. Herbst, M. Nespoli, R. Prevedel, T. Scheidl, F. Tiefenbacher, T. Jennewein, A. Zeilinger, [High-fidelity transmission of entanglement over a high-loss free-space channel](#), Nat. Phys. **5**, 389-392 (2009).
415. A. Fedrizzi, T. Herbst, M. Aspelmeyer, M. Barbieri, T. Jennewein, A. Zeilinger, [Anti-symmetrization reveals hidden entanglement](#), New J. Phys. **11**, 103052 (2009).
414. A. Treiber, A. Poppe, M. Hentschel, D. Ferrini, T. Lorünser, E. Querasser, T. Matyus, H. Hübel, A. Zeilinger, [A fully automated entanglement-based quantum cryptography system for telecom fiber networks](#), New J. Phys. **11**, 045013 (2009).
413. C. Schmid, N. Kiesel, U. Weber, R. Ursin, A. Zeilinger, H. Weinfurter, [Quantum teleportation and entanglement swapping with linear optics logic gates](#), New J. Phys. **11**, 033008 (2009).
412. P. Villoresi, R. Ursin, A. Zeilinger, [Single photons from a satellite: quantum communication in space](#), SPIE Newsroom (February 13, 2009).
411. R. Kaltenbaek, R. Prevedel, M. Aspelmeyer, A. Zeilinger, [High-fidelity entanglement swapping with fully independent sources](#), Phys. Rev. A **79**, 040302(R) (2009).
410. A. Zeilinger, [Photonic Entanglement in Quantum Communication and Quantum Computation](#), in “[Foundations of Quantum Mechanics in the Light of New Technology. ISQM - Tokyo'08](#)”, S. Ichioka, K. Fujikawa (eds.), World Scientific, 214-220 (2009).

2008

409. P. Villoresi, T. Jennewein, F. Tamburini, M. Aspelmeyer, C. Bonato, R. Ursin, C. Pernechele, V. Luceri, G. Bianco, A. Zeilinger, C. Barbieri, [Experimental verification of the feasibility of a quantum channel between space and Earth](#), New J. Phys. **10**, 033038 (2008). Highlight of New J. Phys. for 2008.
408. S. Gröblacher, S. Gigan, H.R. Böhm, A. Zeilinger, M. Aspelmeyer, [Radiation-pressure self-cooling of a micromirror in a cryogenic environment](#), Europhys. Lett. **81**, 54003 (2008).
407. A. Zeilinger, [On the Interpretation and Philosophical Foundation of Quantum Mechanics](#), in “Grenzen menschlicher Existenz. Klimawandel Menschenwürde Unschärferelation”, H. Daub (ed.), Michael Imhof Verlag, 184-201 (2008).

406. A. Zeilinger, [*Die Wirklichkeit der Quanten*](#), Spektrum Wiss., 54-63 (November 2008).
405. M. Aspelmeyer, A. Zeilinger, [*A quantum renaissance*](#), Phys. World, 22 (July 2008).
404. J. Armengol, B. Furch, C.J. d. Matos, O. Minster, L. Cacciapuoti, M. Pfennigbauer, M. Aspelmeyer, T. Jennewein, R. Ursin, T. Schmitt-Manderbach, G. Baister, J.G. Rarity, W. Leeb, C. Barbieri, H. Weinfurter, A. Zeilinger, [*Quantum communications at ESA: Towards a space experiment on the ISS*](#), Acta Astronaut. **63**, 165-178 (2008).
403. A. Zeilinger, [*Quantum Computation and Quantum Communication with Entangled Photons*](#), in "Coherence and Quantum Optics IX", N.P. Bigelow, J.H. Eberly, C.R. Stroud, Jr. (eds.), Optical Society of America, Washington DC, 299-300 (2008).
402. D. Abbott, J. Gea-Banacloche, P.W. Davies, S. Hameroff, A. Zeilinger, J. Eisert, H. Wiseman, S.M. Bezrukov, H. Frauenfelder, [*Plenary Debate: Quantum Effects in Biology: Trivial or Not?*](#), Fluct. Noise Lett. **8**, C5-C26 (2008).
401. A. Zeilinger, [*Die Wissenschaftsstadt Wien aus der Sicht eines Zurückgekehrten*](#), in „Wissenschaftsbericht der Stadt Wien 2007“, City of Vienna, 42 (2008).
400. A. Zeilinger, [*Split world*](#), Nature **451**, 18 (2008). Book Review of 'Decoherence and the Quantum-to-Classical Transition' by Maximilian Schlosshauer.
399. R. Ursin, T. Jennewein, J. Kofler, J.M. Perdigues, L. Cacciapuoti, C. d.Matos, M. Aspelmeyer, A. Valencia, T. Scheidl, A. Acín, C. Barbieri, G. Bianco, S. Cova, D. Giggenbach, W. Leeb, R.H. Hadfield, R. Laflamme, N. Lütkenhaus, G. Milburn, M. Peev, T. Ralph, J.G. Rarity, R. Renner, N. Solomos, W. Tittel, J.P. Torres, M. Toyoshima, P. Villoresi, I. Walmsley, G. Weihs, H. Weinfurter, M. Żukowski, A. Zeilinger, [*Space-QUEST. Experiments with quantum entanglement in space*](#), in "Proceedings of the 2008 Microgravity Sciences and Process Symposium", Europhys. News **40**, 26-29 (2009).
398. J. Kofler, R. Ursin, Č. Brukner, A. Zeilinger, [*Comment on: Testing the speed of 'spooky action at a distance'*](#), arXiv:0810.4452 [quant-ph] (2008).

2007

397. R. Prevedel, A. Zeilinger, [*Entanglement and One-Way Quantum Computing*](#), www.2physics.com (June 8, 2007).
396. B. Sanders, Y. Yamamoto, A. Zeilinger, [*Optical Quantum Information Science. Introduction*](#), J. Opt. Soc. Am. B **24**, 162-162 (2007).

395. P. Walther, M.D. Eisaman, A. Nemirovski, A.V. Gorshkov, A.S. Zibrov, A. Zeilinger, M.D. Lukin, [*Multi-photon entanglement: From quantum curiosity to quantum computing and quantum repeaters*](#), Proc. SPIE **6664**, "The Nature of Light: What Are Photons?", 66640G (2007).
394. A. Zeilinger, [*Von Einstein zum Quantencomputer. Wirklichkeit und Information in der Quantenwelt*](#), in „Vom Urknall zum Bewusstsein – Selbstorganisation der Materie“, K. Sandhoff, W. Donner (eds.), [*Verhandlungen der Gesellschaft Deutscher Naturforscher und Ärzte*](#). **124**, Thieme, Stuttgart, 33-35 (2007).
393. A. Zeilinger, [*Quantum teleportation*](#), McGraw-Hill Encyclopedia of Science & Technology **14**, 10th edition, McGraw-Hill, 705-706 (2007).
392. A. Zeilinger, [*Foreword*](#), in “[*Christian Doppler. Life and Work – Principle and Applications*](#)”, E. Hiebl, M. Musso (eds.), Living Edition, Pöllauberg, 9 (2007).
391. R. Prevedel, M.S Tame, A. Stefanov, M. Paternostro, M.S. Kim, A. Zeilinger, [*Experimental Demonstration of Decoherence-Free One-Way Information Transfer*](#), Phys. Rev. Lett. **99**, 250503 (2007).
390. A. Zeilinger, [*Der Zufall als Notwendigkeit für eine offene Welt*](#), in A. Zeilinger, H. Leder, E. Lichtenberger, J. Mittelstraß, R. Taschner, V. Winiwarter, "[*Der Zufall als Notwendigkeit*](#)", Picus, Vienna, 19-24 (2007).
389. A. Zeilinger, [*Long-Distance Quantum Cryptography with Entangled Photons*](#), Proc. SPIE **6780**, “Quantum Communications Realized”, Y. Arakawa, M. Sasaki, H. Sotobayashi (eds.), Pr67800B (2007).
388. J.M. Perdigues Armengol, B. Furch, C.J. de Matos, O. Minster, L. Cacciapuoti, M. Pfennigbauer, M. Aspelmeyer, T. Jennewein, R. Ursin, T. Schmitt-Manderbach, G. Baister, J. Rarity, W. Leeb, C. Barbieri, H. Weinfurter, A. Zeilinger, [*Quantum Communications at ESA: Towards a Space Experiment on the ISS*](#), in “Proceedings of the 58th International Astronautical Congress, Hyderabad, India, 24-28 September 2007”, International Astronautical Federation, 165-178 (2007).
387. A. Fedrizzi, T. Herbst, A. Poppe, T. Jennewein, A. Zeilinger, [*A wavelength-tunable fiber-coupled source of narrowband entangled photons*](#), Opt. Express **15**, 15377 (2007).
386. T. Paterek, A. Fedrizzi, S. Gröblacher, T. Jennewein, M. Żukowski, M. Aspelmeyer, A. Zeilinger, [*Experimental test of non-local realistic theories without the rotational symmetry assumption*](#), Phys. Rev. Lett. **99**, 210406 (2007).
385. R. Ursin, F. Tiefenbacher, T. Jennewein, A. Zeilinger, [*Applications of quantum communication protocols in real world scenarios towards space*](#), Elektrotechnik & Informationstechnik **5**, 149-153 (2007).

384. H. Hübel, M.R. Vanner, T. Lederer, B. Blauensteiner, T. Lorünser, A. Poppe, A. Zeilinger, [High-fidelity transmission of polarization encoded qubits from an entangled source over 100 km of fiber](#), Opt. Express **15**, 7853-7862 (2007).
383. M. Stütz, S. Gröblacher, T. Jennewein, A. Zeilinger, [How to create and detect N-dimensional entangled photons with an active phase hologram](#), Appl. Phys. Lett. **90**, 261114 (2007).
382. R. Prevedel, A. Stefanov, P. Walther, A. Zeilinger, [Experimental realization of a quantum game on a one-way quantum computer](#), New J. Phys. **9**, 205 (2007).
381. R. Ursin, F. Tiefenbacher, T. Schmitt-Manderbach, H. Weier, T. Scheidl, M. Lindenthal, B. Blauensteiner, T. Jennewein, J. Perdigues, P. Trojek, B. Ömer, M. Fürst, M. Meyenburg, J. Rarity, Z. Sodnik, C. Barbieri, H. Weinfurter, A. Zeilinger, [Entanglement-based quantum communication over 144 km](#), Nat. Phys. **3**, 481-486 (2007). This paper was ranked as a “highly cited paper” by Thomson Reuters’ Web of Science, placing it in the 1% of the academic field of physics based on a highly cited threshold for the field and publication year. It was also the *Nature* Highlight of the Year 2007.
380. A. Poppe, H. Hübel, F. Karinou, B. Blauensteiner, B. Schrenk, T. Lorünser, M. Meyenburg, E. Querasser, A. Zeilinger, [Quantum key distribution over WDMs and optical switches to combine the quantum channel with synchronization channels](#), in “[33rd European Conference and Exhibition of Optical Communicatio – ECOC 2007](#)” (2007).
379. S. Gröblacher, T. Paterek, R. Kaltenbaek, Č. Brukner, M. Żukowski, M. Aspelmeyer, A. Zeilinger, [An experimental test of non-local realism](#), Nature **446**, 871-875 (2007).
378. R. Prevedel, P. Walther, F. Tiefenbacher, P. Böhi, R. Kaltenbaek, T. Jennewein, A. Zeilinger, [High-speed linear optics quantum computing using active feed-forward](#), Nature **445**, 65-69 (2007). This paper was ranked as a “highly cited paper” by Thomson Reuters’ Web of Science, placing it in the 1% of the academic field of physics based on a highly cited threshold for the field and publication year.
377. P. Walther, M. Aspelmeyer, A. Zeilinger, [Heralded generation of multi-photon entanglement](#), Phys. Rev. A **75**, 12313 (2007).
376. R. Prevedel, M. Aspelmeyer, Č. Brukner, T. Jennewein, A. Zeilinger, [Photonic Entanglement as a Resource in Quantum Information Processing](#), J. Opt. Soc. Am. B **24**, 241-248 (2007). Also selected for the Virtual Journal of Quantum Information **7** (Feb 2007).

375. D. Vitali, S. Gigan, A. Ferreira, H.R. Böhm, P. Tombesi, A. Guerreiro, V. Vedral, A. Zeilinger, M. Aspelmeyer, [Optomechanical entanglement between a movable mirror and a cavity field](#), Phys. Rev. Lett. **98**, 030405 (2007). This paper was ranked as a “highly cited paper” by Thomson Reuters’ Web of Science, placing it in the 1% of the academic field of physics based on a highly cited threshold for the field and publication year.
374. T. Schmitt-Manderbach, H. Weier, M. Fürst, R. Ursin, F. Tiefenbacher, T. Scheidl, J. Perdigues, Z. Sodnik, C. Kurtsiefer, J.G. Rarity, A. Zeilinger, H. Weinfurter, [Experimental Demonstration of Free-Space Decoy-State Quantum Key Distribution over 144 km](#), Phys. Rev. Lett. **98**, 010504 (2007). This paper was ranked as a “highly cited paper” by Thomson Reuters’ Web of Science, placing it in the 1% of the academic field of physics based on a highly cited threshold for the field and publication year.
373. M.S. Tame, R. Prevedel, M. Paternostro, P. Böhi, M.S. Kim, A. Zeilinger, [Experimental Realization of Deutsch’s Algorithm in a One-way Quantum Computer](#), Phys. Rev. Lett. **98**, 140501 (2007).

2006

372. S. Gigan, H.R. Böhm, M. Paternostro, F. Blaser, G. Langer, J.B. Hertzberg, K.C. Schwab, D. Bäuerle, M. Aspelmeyer, A. Zeilinger, [Self-cooling of a micromirror by radiation pressure](#), Nature **444**, 67-70 (2006). This paper was ranked as a “highly cited paper” by Thomson Reuters’ Web of Science, placing it in the 1% of the academic field of physics based on a highly cited threshold for the field and publication year.
371. P. Walther, A. Zeilinger, [Quantum Entanglement, Purification, and linear-optics quantum gates with photonic qubits](#), in “[Quantum Information and Computing](#)”, L. Accardi, M. Ohya, N. Watanabe (eds.), World Scientific, 360-369 (2006).
370. A. Zeilinger, J. Kofler, [La dissolution du paradoxe](#), Sciences et Avenir Hors-Série **148**, 54 (Oct./Nov. 2006).
369. H.R. Böhm, S. Gigan, G. Langer, J. Hertzberg, F. Blaser, D. Bäuerle, K. Schwab, A. Zeilinger, M. Aspelmeyer, [High reflectivity high-Q micromechanical Bragg mirror](#), Appl. Phys. Lett. **89**, 223101 (2006).
368. C. Bonato, M. Aspelmeyer, T. Jennewein, C. Pernechele, P. Villoresi, A. Zeilinger, [Influence of satellite motion on polarization qubits in a Space-Earth quantum communication link](#), Opt. Express **14**, 10050-10059 (2006).
367. A. Zeilinger, [Quantum Communication and Quantum Computation with Entangled Photons](#), in “[Foundations of Quantum Mechanics in the Light of New Technology. ISQM - Tokyo ‘05](#)”, S. Ishioka, K. Fujikawa (eds.), World Scientific, 24-28 (2006).

366. R. Kaltenbaek, B. Blauensteiner, M. Żukowski, M. Aspelmeyer, A. Zeilinger, [Experimental interference of independent photons](#), Phys. Rev. Lett. **96**, 240502 (2006).
365. P. Walther, K.J. Resch, Č. Brukner, A. Zeilinger, [Experimental Entangled Entanglement](#), Phys. Rev. Lett. **97**, 020501 (2006).
364. M. Aspelmeyer, H.R. Böhm, A. Fedrizzi, S. Gasparoni, T.D. Jennewein, M. Lindenthal, G. Molina-Terriza, A. Poppe, K. Resch, R. Ursin, P. Walther, A. Zeilinger, [Advanced Quantum Communications Experiments with Entangled Photons](#), in “[Quantum Communications and Cryptography](#)”, A.V. Sergienko (ed.), Taylor and Francis, London, 45-81 (2006).
363. A. Zeilinger, [Essential quantum entanglement](#), in “[The New Physics](#)”, G. Fraser (ed.), Cambridge University Press, Cambridge, 257-267 (2006).
362. S. Gröblacher, T. Jennewein, A. Vaziri, G. Weihs, A. Zeilinger, [Experimental Quantum Cryptography with Qutrits](#), New J. Phys. **8**, 75 (2006).
361. Č. Brukner, V. Vedral, A. Zeilinger, [Crucial Role of Quantum Entanglement in Bulk Properties of Solids](#), Phys. Rev. A **73**, 012110 (2006).
360. K. Sanaka, K.J. Resch, A. Zeilinger, [Filtering Out Photonic Fock States](#), Phys. Rev. Lett. **96**, 083601 (2006).
359. A. Poppe, H. Hübel, T. Lederer, A. Fedrizzi, M.R. Vanner, A. Zeilinger, [Detection of Polarization Entanglement after 75 km of Fiber Transmission](#), in “[2006 European Conference on Optical Communication \(ECOC\)](#)”, IEEE, 978-2-912328-39-7 (2006).

2005

358. Č. Brukner, A. Zeilinger, [Quantum Physics as a Science of Information](#), in “[Quo Vadis Quantum Mechanics?](#)”, A. Elitzur, S. Dolev, N. Kolenda (eds.), Springer, Cham, 47-61 (2005).
357. A. Zeilinger, [Verschränkung – ein Quantenrätsel für jedermann](#), in „Aus den Elfenbeintürmen der Wissenschaft. 1. XLAB Science Festival“ Wallstein, Göttingen, 89-106 (2005). Published under the pseudonym A. Quantinger.
356. A. Stibor, K. Hornberger, L. Hackermüller, A. Zeilinger, M. Arndt, [Talbot-Lau interferometry with fullerenes: Sensitivity to inertial forces and vibrational dephasing](#), Laser Phys. **15**, 10-17 (2005).
355. Č. Brukner, M. Aspelmeyer, A. Zeilinger, [Complementarity and Information in "Delayed-Choice for Entanglement Swapping"](#), Found. Phys. **37**, 1909 (2005).
354. P. Walther, A. Zeilinger, [Experimental realization of a photonic Bell-state analyzer](#), Phys. Rev. A **72**, 010302(R) (2005).

353. M. Pfennigbauer, M. Aspelmeyer, W.R. Leeb, G. Badurek, G. Baister, T. Dreischer, T. Jennewein, G. Baister, G. Neckamm, J.M. Perdigues, J. Summhammer, H. Weinfurter, A. Zeilinger, [Satellite-based quantum communication terminal employing state-of-the-art technology](#), Jour. Opt. Netw. **4**, 549-560 (2005).
352. M. Aspelmeyer, T. Jennewein, G. Weihs, A. Zeilinger, [Physik der Photonen](#), Spektrum der Wissenschaft Spezial – Sterne und Weltraum **1** (2005).
351. P. Walther, A. Zeilinger, [Quantum Logics Based on Four-Photon Entanglement](#), in “[Decoherence, Entanglement and Information Protection in Complex Quantum Systems](#)”, V.M. Akulin, A. Sarfati, G. Kurizki, S. Pellegrin (eds.), Springer, Cham, 49-62 (2005).
350. P. Walther, M. Aspelmeyer, K.J. Resch, A. Zeilinger, [Experimental violation of a cluster state Bell inequality](#), Phys. Rev. Lett. **95**, 020403 (2005).
349. P. Walther, K.J. Resch, A. Zeilinger, [Local conversion of Greenberger-Horne-Zeilinger states to approximate W states](#), Phys. Rev. Lett. **94**, 240501 (2005).
348. M. Arndt, L. Hackermüller, K. Hornberger, A. Zeilinger, [Coherence and Decoherence Experiments with Fullerenes](#), in “[Decoherence, Entanglement and Information Protection in Complex Quantum Systems](#)”, V.M. Akulin, A. Sarfati, G. Kurizki, S. Pellegrin (eds.), Springer, Cham, 329-352 (2005).
347. P. Walther, K. Resch, Č. Brukner, A. Steinberg, J.-W. Pan, A. Zeilinger, [Quantum nonlocality obtained from local states by entanglement purification](#), Phys. Rev. Lett. **94**, 040504 (2005).
346. K. Resch, P. Walther, A. Zeilinger, [Full characterization of a three-photon GHZ state using quantum state tomography](#), Phys. Rev. Lett. **94**, 070402 (2005).
345. M. Peev, M. Nölle, O. Maurhardt, T. Lorünser, M. Suda, A. Poppe, R. Ursin, A. Fedrizzi, A. Zeilinger, [A Novel Protocol-Authentication Algorithm Ruling Out a Man-in-the Middle Attack in Quantum Cryptography](#), Int. J. Quantum Inf. **3**, 225 (2005).
344. T. Jennewein, Č. Brukner, M. Aspelmeyer, A. Zeilinger, [Experimental Proposal of Switched "Delayed-Choice" for Entanglement Swapping](#), Int. J. Quantum Inf. **3**, 73-79 (2005).
343. M. Arndt, K. Hornberger, A. Zeilinger, [Probing the limits of the quantum world](#), Physics World, 35 (March 2005).
342. G. Molina-Terriza, A. Vaziri, R. Ursin, A. Zeilinger, [Experimental Quantum Coin Tossing](#), Phys. Rev. Lett. **94**, 40501 (2005).

341. K.J. Resch, M. Lindenthal, B. Blauensteiner, H.R. Böhm, A. Fedrizzi, C. Kurtsiefer, A. Poppe, T. Schmitt-Manderbach, M. Taraba, R. Ursin, P. Walther, H. Weier, H. Weinfurter, A. Zeilinger, [Distributing entanglement and single photons through an intra-city, free-space quantum channel](#), Opt. Express **13**, 203 (2005).
340. P. Walther, K.J. Resch, T. Rudolph, E. Schenck, H. Weinfurter, V. Vedral, M. Aspelmeyer, A. Zeilinger, [Experimental One-Way Quantum Computing](#), Nature **434**, 169-176 (2005).
339. P. Zoller, T. Beth, D. Binosi, R. Blatt, H. Briegel, D. Bruss, T. Calarco, J.I. Cirac, D. Deutsch, J. Eisert, A. Ekert, C. Fabre, N. Gisin, P. Grangier, M. Grassl, S. Haroche, A. Imamoglu, A. Karlson, J. Kempe, L. Kouwenhoven, S. Kröll, G. Leuchs, M. Lewenstein, D. Loss, N. Lütkenhaus, S. Massar, J.E. Mooij, M.B. Plenio, E. Polzik, S. Popescu, G. Rempe, A. Sergienko, D. Suter, J. Twamley, G. Wordin, R. Werner, A. Winter, J. Wrachtrup, A. Zeilinger, [Quantum information processing and communication. Strategic report on current status, visions and goals for research in Europe](#), Eur. Phys. J. D 36, 203-228 (2005).
338. A. Zeilinger, [Time Travel](#), in “New Scientist's Book of 100 Things to Do Before You Die”, Profile Books, London, 40 (2005).
337. A. Zeilinger, G. Weihs, T. Jennewein, M. Aspelmeyer, [Happy Centenary, Photon](#), Nature **433**, 230-238 (2005).

2004

336. P. Villoresi, F. Tamburini, M. Aspelmeyer, R. Ursin, C. Pachello, G. Bianco, C. Barbieri, T. Jennewein, A. Zeilinger, [Space-to-ground quantum-communication using an optical ground station: a feasibility study](#), Proc. SPIE **5551**, “Quantum Communications and Quantum Imaging II”, R. Meyers, Y. Shih (eds.), 113-120 (2004).
335. M. Lindenthal, T. Jennewein, R. Ursin, M. Aspelmeyer, R. Kaltenbaek, A. Zeilinger, [Measurement and active compensation of polarization drifts in a fiber quantum channel used for teleportation](#), in “[2003 European Quantum Electronics Conference. EQEC 2003](#)”, 368 (2004).
334. L. Hackermüller, K. Hornberger, B. Brezger, A. Zeilinger, M. Arndt, [Decoherence of matter waves by thermal emission of radiation](#), Nature **427**, 711-714 (2004).
333. M. Aspelmeyer, P. Walther, T. Jennewein, A. Zeilinger, [Nonlocal photon number states for quantum metrology](#), Proc. SPIE **5551**, “[Quantum Communications and Quantum Imaging II](#)”, R. Meyers, Y. Shih (eds.), 15-20 (2004).

332. T. Jennewein, A. Zeilinger, *[Quantum Noise and Quantum Communication](#)*, Proc. SPIE **5468**, “[Fluctuations and Noise in Photonics and Quantum Optics II](#)”, P. Heszler, D. Abbot, J.R. Gea-Banacloche, P.R. Hemmer (eds.), (SPIE, Bellingham, WA, 2004), 0277-786X (2004).
331. A. Zeilinger, A. Zeilinger, *[Gesetze der Natur – Natur der Gesetze](#)*, in “Soziokultureller Wandel im Verfassungsstaat. Phänomene politischer Transformation”, C. Brünner, W. Mantl, M. Welan (eds.), vol. 90 of the series “Studien zur Politik und Verwaltung”, Böhlau, Vienna, 1217-1222, (2004).
330. M. Arndt, L. Hackermüller, K. Hornberger, A. Zeilinger, *[Organic molecules and decoherence experiments in a molecule interferometer](#)*, in “[Multiscale Methods in Quantum Mechanics. Theory and Experiment](#)”, P. Blanchard, G. Dell’Antonio (eds.), Birkhäuser, Boston, 1-10 (2004).
329. P. Walther, J.-W. Pan, M. Aspelmeyer, R. Ursin, S. Gasparoni, A. Zeilinger, *[De Broglie Wavelength of a Nonlocal Four-Photon State](#)*, Nature **429**, 158-161 (2004).
328. M. Aspelmeyer, Č. Brukner, A. Zeilinger, *[Entangled photons and quantum communication](#)*, in “[Quantum Entanglement and Information Processing. Lecture Notes of the Les Houches Summer School 2003](#)”, D. Estève, J.-M. Raimond, J. Dalibard (eds.), Elsevier Science, 335-353, (2004).
327. R. Ursin, T. Jennewein, M. Aspelmeyer, R. Kaltenbaek, M. Lindenthal, P. Walther, A. Zeilinger, *[Quantum teleportation across the Danube](#)*, Nature **430**, 849 (2004).
326. S. Gasparoni, J.-W Pan, P. Walther, T. Rudolph, A. Zeilinger, *[Realization of a photonic CNOT gate sufficient for quantum computation](#)*, Phys. Rev. Lett. **93**, 020504 (2004).
325. A. Poppe, A. Fedrizzi, R. Ursin, H.R. Böhm, T. Lörunser, O. Maurhardt, M. Peev, M. Suda, C. Kurtsiefer, H. Weinfurter, T. Jennewein, A. Zeilinger, *[Practical quantum key distribution with polarization entangled photons](#)*, Opt. Express **12**, 3865-3871 (2004).
324. G. Molina-Terriza, A. Vaziri, J. Rehacek, Z. Hradil, A. Zeilinger, *[Triggered Qutrits for Quantum Communication Protocols](#)*, Phys. Rev. Lett. **92**, 168903 (2004).
323. Č. Brukner, M. Żukowski, J.-W. Pan, A. Zeilinger, *[Bell's Inequalities and Quantum Communication Complexity](#)*, Phys. Rev. Lett. **92**, 127901 (2004).
322. K. Sanaka, T. Jennewein, J.-W. Pan, K. Resch, A. Zeilinger, *[Experimental Nonlinear Sign Shift for Linear Optics Quantum Computation](#)*, Phys. Rev. Lett. **92**, 017902 (2004).

321. H.R. Böhm, P.S. Böhm, M. Aspelmeyer, Č. Brukner, A. Zeilinger, [Exploiting the randomness of the measurement basis in quantum cryptography: Secure Quantum Key Growing without Privacy Amplification](#), arXiv:0408179 [quant-ph] (2004).

2003

320. J.-W. Pan, S. Gasparoni, R. Ursin, G. Weihs, A. Zeilinger, [Experimental entanglement purification of arbitrary unknown states](#), Nature **423**, 417-422 (2003).
319. B. Brezger, M. Arndt, A. Zeilinger, [Concepts for near-field interferometers with large molecules](#), J. Opt. B **5**, 82-89 (2003).
318. A.C. Elitzur, S. Dolev, A. Zeilinger, [Time-Reversed EPR and the Choice of Histories in Quantum Mechanics](#), in “[The Physics of Communication. Proceedings of the XXII Solvay Conference on Physics, Delphi Lamia, Greece, 24 - 29 November 2001](#)”, I. Antoniou, V.A. Sadovnichy, H. Walther (eds.), World Scientific, 452-461 (2003).
317. A. Zeilinger, [Quantum Teleportation](#), in the Scientific American Collection “The Edge of Physics” (2003). Updated version of the 2001 contribution.
316. M. Arndt, A. Zeilinger, [Buckyballs and the Dual-Slit Experiment](#), in “Quantum: A guide for the perplexed”, J.S. Al-Khalili (ed.), Weidenfeld & Nicolson, Strand, 24-25 (2003).
315. M. Pfennigbauer, W. Leeb, M. Aspelmeyer, T. Jennewein, A. Zeilinger, [Free-Space Optical Quantum Key Distribution Using Intersatellite Links](#), in “Proceedings of the CNES - Intersatellite Link Workshop” (2003).
314. M. Aspelmeyer, T. Jennewein, M. Pfennigbauer, W. Leeb, A. Zeilinger, [Long-Distance Quantum Communication with Entangled Photons using Satellites](#), IEEE. J. Sel. Top. Quantum Electron. **9**, 1541-1551 (2003). Special issue on “Quantum Internet Technologies”.
313. R. Kaltenbaek, M. Aspelmeyer, T. Jennewein, Č. Brukner, M. Pfennigbauer, W.R. Leeb, A. Zeilinger, [Proof-of-Concept Experiments for Quantum Physics in Space](#), Proc. SPIE **5161**, “[Quantum Communications and Quantum Imaging](#)”, R. Meyers, Y. Shih (eds.), 252-268 (2003).
312. Č. Brukner, M.S. Kim, J.-W. Pan, A. Zeilinger, [Correspondence between continuous-variable and discrete quantum systems of arbitrary dimensions](#), Phys. Rev. A **68**, 062105 (2003).
311. Č. Brukner, A. Zeilinger, [Erratum: Conceptual inadequacy of the Shannon information in quantum measurements, Phys. Rev. A **63**, 022113 \(2001\)](#), Phys. Rev. A **67**, 049901(E) (2003).

310. O. Nairz, M. Arndt, A. Zeilinger, [Erratum: “Quantum interference experiments with large molecules”](#), Am. J. Phys. **71**, 1084 (2003).
309. O. Nairz, M. Arndt, A. Zeilinger, [Quantum Interference Experiments with Large Molecules](#), Am. J. Phys. **71**, 319 (2003). [Erratum](#) 2003.
308. L. Hackermüller, S. Uttenthaler, K. Hornberger, E. Reiger, B. Brezger, A. Zeilinger, M. Arndt, [Wave Nature of Biomolecules and Fluorofullerenes](#), Phys. Rev. Lett. **91**, 090408 (2003).
307. T. Jennewein, G. Weihs, A. Zeilinger, [Photon Statistics and Quantum Teleportation Experiments](#), J. Phys. Soc. Jpn. **72**, 168-173 (2003).
306. L. Hackermüller, K. Hornberger, B. Brezger, A. Zeilinger, M. Arndt, [Decoherence in a Talbot-Lau interferometer: the influence of molecular scattering](#), Appl. Phys. B **77**, 781-787 (2003).
305. M. Aspelmeyer, H.R. Böhm, T. Gyatso, T. Jennewein, R. Kaltenbaek, M. Lindenthal, G. Molina-Terriza, A. Poppe, K. Resch, M. Taraba, R. Ursin, P. Walther, A. Zeilinger, [Long-Distance Free-Space Distribution of Quantum Entanglement](#), Science **301**, 621-623 (2003).
304. K. Hornberger, S. Uttenthaler, B. Brezger, L. Hackermüller, M. Arndt, A. Zeilinger, [Collisional decoherence observed in matter wave interferometry](#), Phys. Rev. Lett. **90**, 160401 (2003).
303. Z.-B. Chen, J.-W. Pan, Y.-D. Zhang, Č. Brukner, A. Zeilinger, [All-versus-nothing violation of local realism for two entangled photons](#), Phys. Rev. Lett. **90**, 160408 (2003).
302. A. Vaziri, J.-W. Pan, G. Weihs, A. Zeilinger, [Concentration of higher dimensional entanglement: Qutrits of Photon Orbital Angular Momentum](#), Phys. Rev. Lett. **91**, 227902 (2003).
301. Č. Brukner, J.-W. Pan, C. Simon, G. Weihs, A. Zeilinger, [Probabilistic instantaneous quantum computation](#), Phys. Rev. A **67**, 034304 (2003).
300. R.D. Gill, G. Weihs, A. Zeilinger, M. Żukowski, [Comment on "Exclusion of time in the theorem of Bell" by K. Hess and W. Philipp](#), Europhys. Lett. **61**, 282-283 (2003).
299. J.-W. Pan, S. Gasparoni, M. Aspelmeyer, T. Jennewein, A. Zeilinger, [Experimental realization of freely propagating teleported qubits](#), Nature **421**, 721-725 (2003).
298. A. Zeilinger, [Why the Quantum? It from Bit? A Participatory Universe? Three Far-Reaching, Visionary Challenges from John Archibald Wheeler and How They Inspired a Quantum Experimentalist](#), in “Spiritual Information”, C.L. Harper (ed.), Templeton Foundation Press, 201-220 (2003).

297. Č. Brukner, A. Zeilinger, [Information and fundamental elements of the structure of quantum theory](#), in “Time, Quantum, Information”, L. Castell, O. Ischebeck (eds.), Springer, Cham (2003).
296. T. Jennewein, G. Weihs, J.-W. Pan, A. Zeilinger, [Reply to Ruff's Comment on "Experimental Nonlocality Proof of Quantum Teleportation and Entanglement Swapping"](#), arXiv:0303104 [quant-ph] (2003).

2002

295. A. Vaziri, G. Weihs, A. Zeilinger, [Superpositions of the Orbital Angular Momentum for Applications in Quantum Experiments](#), J. Opt. B: Quantum Semiclass. Opt. **4**, 47-51 (2002).
294. Č. Brukner, M. Żukowski, A. Zeilinger, [Quantum communication complexity protocol with two entangled qutrits](#), Phys. Rev. Lett. **89**, 197901 (2002).
293. A. Zeilinger, [Bell's Theorem, Information and Quantum Physics](#), in “[Quantum \[Un\]Speakables. From Bell's Theorem to Quantum Information](#)”, R. Bertlmann, A. Zeilinger (eds.), Springer, Cham, 241-254 (2002).
292. J.-W. Pan, A. Zeilinger, [Multi-Photon Entanglement and Quantum Non-Locality](#), in “[Quantum \[Un\]Speakables. From Bell's Theorem to Quantum Information](#)”, R. Bertlmann, A. Zeilinger (eds.), Springer, Cham, 225-240 (2002).
291. R.D. Gill, G. Weihs, A. Zeilinger, M. Żukowski, [No time loophole in Bell's theorem: The Hess-Philip model is nonlocal](#), P. Natl. Acad. Sci. USA **99**, 14632-14635 (2002).
290. Č. Brukner, A. Zeilinger, [Young's experiment and the finiteness of information](#), Phil. Trans. R. Soc. Lond. A **360**, 1061-1069 (2002).
289. A. Vaziri, G. Weihs, A. Zeilinger, [Experimental Two-Photon Three-Dimensional Quantum Entanglement for Quantum Communication](#), Phys. Rev. Lett. **89**, 240401-1 (2002).
288. T. Jennewein, G. Weihs, J.-W. Pan, A. Zeilinger, [Experimental Nonlocality Proof of Quantum Teleportation and Entanglement Swapping](#), Phys. Rev. Lett. **88**, 17903 (2002).
287. J. Lawrence, Č. Brukner, A. Zeilinger, [Mutually unbiased binary observable sets on N qubits](#), Phys. Rev. A **65**, 32320 (2002).
286. B. Brezger, L. Hackermüller, S. Uttenthaler, J. Petschinka, M. Arndt, A. Zeilinger, [Matter-Wave Interferometer for Large Molecules](#), Phys. Rev. Lett. **88**, 100404 (2002).
285. M. Arndt, O. Nairz, A. Zeilinger, [Wave-Particle Duality](#), in “McGraw Hill Yearbook of Science & Technology 2002”, McGraw-Hill, 411-413 (2002).

284. M. Arndt, O. Nairz, A. Zeilinger, *Interferometry with Macromolecules: Quantum Paradigms Tested in the Mesoscopic World*, in “Quantum [Un]Speakables. From Bell's Theorem to Quantum Information”, R. Bertlmann, A. Zeilinger (eds.), Springer, Cham, 333-350 (2002).
283. T. Jennewein, J.-W. Pan, S. Gasparoni, G. Weihs, A. Zeilinger, *High-Fidelity Experimental Quantum Teleportation and Entanglement Swapping*, in “Foundations of Quantum Mechanics in the Light of New Technology, Proceedings of the 7th International Symposium ISQM Tokyo'01”, Y.A. Ono, K. Fujikawa (eds.), World Scientific, Singapore, 44-47 (2002).
282. O. Nairz, M. Arndt, A. Zeilinger, *Experimental verification of the Heisenberg uncertainty principle for fullerene molecules*, Phys. Rev. A **65**, 32109 (2002).

2001

281. G. Weihs, A. Zeilinger, *Photon statistics at beam-splitters: an essential tool in quantum information and teleportation*, in “Coherence and Statistics of Photons and Atoms”, J. Perina (ed.), Wiley, i-xxviii (2001).
280. Č. Brukner, A. Zeilinger, *Conceptual Inadequacy of the Shannon Information in Quantum Measurements*, Phys. Rev. A **63**, 022113 1-10 (2001); *Erratum* 2003.
279. A. Mair, A. Vaziri, G. Weihs, A. Zeilinger, *Entanglement of the Orbital Angular Momentum States of Photons*, Nature **412**, 313-316 (2001).
278. O. Nairz, B. Brezger, M. Arndt, A. Zeilinger, *Diffraction of Complex Molecules by Structures Made of Light*, Phys. Rev. Lett **87**, 160401 (2001).
277. T. Jennewein, G. Weihs, A. Zeilinger, *Schrödinger's Geheimnisse – absolut sichere Kommunikation durch Quantenkryptographie*, Heise, ct magazin für computer technik **6**, 260-268 (2001).
276. C. Simon, Č. Brukner, A. Zeilinger, *Hidden-variable theorems for real experiments*, Phys. Rev. Lett. **86**, 4427 (2001).
275. J.-W. Pan, M. Daniell, S. Gasparoni, G. Weihs, A. Zeilinger, *Experimental Demonstration of Four-Photon Entanglement and High-Fidelity Teleportation*, Phys. Rev. Lett. **86**, 4435-4438 (2001).
274. O. Nairz, A. Zeilinger, *Matter-wave interference of Fullerenes*, SPIE's International Technical Group Newsletter **12**, 5 (2001). Special issue on Hidden Holography.
273. J.-W. Pan, C. Simon, Č. Brukner, A. Zeilinger, *Entanglement Purification for Quantum Communication*, Nature **410**, 1067-1070 (2001).

272. S. Franke-Arnold, M. Arndt, A. Zeilinger, [Magneto-optical effects with cold Lithium atoms](#), J. Phys. B. At. Mol. Opt. Phys. **34**, 2527-2536 (2001).
271. M. Arndt, O. Nairz, J. Petschinka, A. Zeilinger, [High Contrast Interference with C₆₀ and C₇₀](#), C. R. Acad. Sci. Paris, t. 2 Série IV, 581-585 (2001).
270. Č. Brukner, M. Żukowski, A. Zeilinger, [The essence of entanglement](#), arXiv:0106119 [quant-ph] (2001). Translated into Chinese by Qiang Zhang and Yong-de Zhang, New Advances in Physics (Journal of the Chinese Physical Society).

2000

269. T. Jennewein, C. Simon, G. Weihs, H. Weinfurter, A. Zeilinger, [Quantum Cryptography with Entangled Photons](#), Phys. Rev. Lett. **84**, 4729-4732 (2000).
268. A. Zeilinger, [The Quantum Centennial](#), Nature **408**, 639-641 (2000).
267. D. Kaszlikowski, P. Gnaciński, M. Żukowski, W. Miklaszewski, A. Zeilinger, [Violations of Local Realism by Two Entangled N-Dimensional Systems Are Stronger than for Two Qubits](#), Phys. Rev. Lett. **85**, 4418-4421 (2000).
266. M. Arndt, O. Nairz, J. Petschinka, J. Voss-Andreae, G. v. d. Zouw, C. Keller, A. Zeilinger, [Coherence and Decoherence in de Broglie Interference of Fullerenes](#), in "IQEC 2000, Conference Digest, Nice", IQEC, 115 (2000).
265. C. Simon, M. Żukowski, H. Weinfurter, A. Zeilinger, [Feasible "Kochen-Specker" Experiment with Single Particles](#), Phys. Rev. Lett. **85**, 1783-1786 (2000).
264. A. Zeilinger, [Quantum Entangled Bits Step Closer to Information Technology](#), Science **289**, 405-406 (2000).
263. A. Zeilinger, [The quantum jungle revisited. Book review of 'The New World of Mr Tompkins' by G. Gamow and R. Stannard](#), Nature **405**, 618 (2000).
262. A. Zeilinger, [Quanten-Teleportation](#), Spektrum Wiss. **6**, 30-40 (2000).
261. A. Zeilinger, [Quantenexperimente zwischen Photon und Fulleren](#), Physik in unserer Zeit **5**, 199-202 (2000).
260. O. Nairz, M. Arndt, A. Zeilinger, [Experimental Challenges in Fullerene Interferometry](#), J. Mod. Opt. **47**, 2811-2821 (2000).
259. T. Jennewein, U. Achleitner, G. Weihs, H. Weinfurter, A. Zeilinger, [A Fast and Compact Quantum Random Number Generator](#), Rev. Sci. Instr. **71**, 1675-1680 (2000).

258. A. Zeilinger, *Quantum Teleportation*, Scientific American **282**, 32-41 (2000). [Updated version](#) in the Scientific American Collection “The Edge of Physics” (2003).
257. J.-W. Pan, D. Bouwmeester, M. Daniell, H. Weinfurter, A. Zeilinger, [Experimental test of quantum nonlocality in three-photon Greenberger-Horne-Zeilinger entanglement](#), Nature **403**, 515-519 (2000).
256. A. Carollo, G.M. Palma, C. Simon, A. Zeilinger, [Tensor-product states and local indistinguishability: an optical linear implementation](#), AIP Conference Proceedings **513**, 79-82 (2000).
255. J.-W. Pan, D. Bouwmeester, M. Daniell, H. Weinfurter, A. Zeilinger, [Three-photon GHZ entanglement and quantum information](#), in “Proceedings of the 15th European Meetings on Cybernetics and Systems Research in Vienna, Austria”, EMCSR, 247 (2000).
254. M. Daniell, J.-W. Pan, G. Weihs, A. Zeilinger, [High Fidelity Entanglement Swapping](#), in “Conference Digest, CLEO'2000, Nice”, 7 (2000).
253. H. Weinfurter, D. Bouwmeester, T. Jennewein, J.-W. Pan, G. Weihs, A. Zeilinger, [Quantum Communication and Entanglement](#), in “Proc. 2000 IEEE International Symposium on Circuits and Systems”, 346 (2000).
252. Č. Brukner, A. Zeilinger, [Encoding and Decoding in Complementary Bases with Quantum Gates](#), J. Mod. Opt. **47**, 2233-2246 (2000).
251. S. Bernet, R. Abfaltrerer, C. Keller, M.K. Oberthaler, J. Schiedmayer, A. Zeilinger, [Matter waves in time-modulated complex light potentials](#), Phys. Rev. A. **62**, 023606-1-20 (2000).
250. C. Keller, J. Schmiedmayer, A. Zeilinger, [Requirements for coherent atom channeling](#), Opt. Commun. **179**, 129-135 (2000).
249. D. Greenberger, M. Horne, A. Zeilinger, [Similarities and Differences Between Two-Particle and Three-Particle Interference](#), Fortschr. Phys. **48**, 243-252 (2000).
248. C. Simon, G. Weihs, A. Zeilinger, [Optimal Quantum Cloning via Stimulated Emission](#), Phys. Rev. Lett. **84**, 2993-2996 (2000).
247. T. Jennewein, C. Simon, G. Weihs, H. Weinfurter, A. Zeilinger, [Quantum Cryptography with Entangled Photons](#), Phys. Rev. Lett. **84**, 4729-4732 (2000).
246. G. van der Zouw, M. Weber, J. Felber, R. Gähler, P. Geltenbort, A. Zeilinger, [Aharonov-Bohm and gravity experiments with the very-cold-neutron interferometer](#), Nucl. Instrum. Methods Phys. Res. A **440**, 568-574 (2000).
245. M. Arndt, A. Zeilinger, [Wo ist die Grenze der Quantenwelt?](#), Physikalische Blätter **56**, 69-72 (2000).

244. D. Bouwmeester, J.-W. Pan, H. Weinfurter, A. Zeilinger, [High Fidelity Teleportation of Independent Qubits](#), J. Mod. Opt. **47**, 279-289 (2000).
243. C. Simon, G. Weihs, A. Zeilinger, [Optimal quantum cloning and universal NOT without quantum gates](#), J. Mod. Opt. **47**, 233-246 (2000).

1999

242. D. Bouwmeester, J.-W. Pan, H. Weinfurter, A. Zeilinger, [Experimental Quantum Teleportation of Qubits and Entanglement Swapping](#), in “[Epistemological and Experimental Perspectives on Quantum Physics](#)”, D. Greenberger, W.L. Reiter, A. Zeilinger (eds.), Part of the book series “Vienna Circle Institute Yearbook” (VCIY, volume 7), Springer, Dordrecht, 127-140 (1999).
241. M. Arndt, O. Nairz, J. Voss-Andreae, C. Keller, G. Van der Zouw, A. Zeilinger, [Wave-particle duality of C₆₀ molecules](#), Nature **401**, 680-682 (1999).
240. Č. Brukner, A. Zeilinger, *Information Content of an Elementary System and the Foundations of Quantum Physics*, in “Proceedings of the 14th International Conference on Laser Spectroscopy, Innsbruck, Austria, June 1999”, World Scientific, 71-79 (1999).
239. A. Zeilinger, [In retrospect: chosen by Anton Zeilinger. Albert Einstein: Philosopher Scientist](#), Nature **398**, 210-211 (1999).
238. A. Mair, A. Zeilinger, *Entangled States of Orbital Angular Momentum of Photons*, in “[Epistemological and Experimental Perspectives on Quantum Physics](#)”, D. Greenberger, W.L. Reiter, A. Zeilinger (eds.), Part of the book series “Vienna Circle Institute Yearbook” (VCIY, volume 7), Springer, Dordrecht, 249-252 (1999).
237. G. van der Zouw, A. Zeilinger, P. Hoghøj, R. Gähler, P. Geltenbort, J. Butterworth, *Testing the Proportionality of the Neutron's Gravitational and Inertial Mass*, in “ILL Annual Report 1999”, Institut Laue-Langevin, 62-63 (1999).
236. A. Zeilinger, [Three- and Four-Photon Correlations and Entanglement: Quantum Teleportation and Beyond](#), in “Quantum Coherence and Decoherence. ISQM Tokyo '99”, Y.A. Ono, K. Fujikawa (eds.), Elsevier Science, 19-26 (1999).
235. P.G. Kwiat, A.G. White, I. Appelbaum, J.R. Mitchell, O. Nairz, G. Weihs, H. Weinfurter, A. Zeilinger, [High-Efficiency Quantum Interrogation Measurements via the Quantum Zeno Effect](#), Phys. Rev. Lett. **83**, 4725-4728 (1999).

234. M. Arndt, O. Nairz, G. Van der Zouw, A. Zeilinger, [Towards Coherent Matter Wave Optics with Macromolecules](#), Epistemological and Experimental Perspectives on Quantum Physics, Greenberger et al. (eds.), Kluwer Academic, Netherlands, 221-224 (1999).
233. M. Żukowski, A. Zeilinger, M.A. Horne, H. Weinfurter, [Independent Photons and Entanglement. A Short Overview](#), Int. J. Theor. Phys. **38**, 501-517 (1999).
232. M. Daniell, D. Bouwmeester, J.-W. Pan, H. Weinfurter, A. Zeilinger, [Observation of Three-Particle Entanglement](#), in “[Epistemological and Experimental Perspectives on Quantum Physics](#)”, D. Greenberger, W.L. Reiter, A. Zeilinger (eds.), Part of the book series “Vienna Circle Institute Yearbook” (VCIY, volume 7), Springer, Dordrecht, 239-243 (1999).
231. G. Weihs, T. Jennewein, C. Simon, H. Weinfurter, A. Zeilinger, [A Bell Experiment under Strict Einstein Locality Conditions](#), in “[Epistemological and Experimental Perspectives on Quantum Physics](#)”, D. Greenberger, W.L. Reiter, A. Zeilinger (eds.), Part of the book series “Vienna Circle Institute Yearbook” (VCIY, volume 7), Springer, Dordrecht, 267-269 (1999).
230. G. Van der Zouw, A. Zeilinger, [Observation of the Nondispersivity of Scalar Aharonov-Bohm Phase Shifts by Neutron Interferometry](#), in “[Epistemological and Experimental Perspectives on Quantum Physics](#)”, D. Greenberger, W.L. Reiter, A. Zeilinger (eds.), Part of the book series “Vienna Circle Institute Yearbook” (VCIY, volume 7), Springer, Dordrecht, 263-265 (1999).
229. Č. Brukner, A. Zeilinger, [Quantum Complementarity and Information Invariance](#), in “[Epistemological and Experimental Perspectives on Quantum Physics](#)”, D. Greenberger, W.L. Reiter, A. Zeilinger (eds.), Part of the book series “Vienna Circle Institute Yearbook” (VCIY, volume 7), Springer, Dordrecht, 231-234 (1999).
228. C. Keller, J. Schmiedmayer, A. Zeilinger, [Matter Wave Diffraction at Standing Light Waves](#), in “[Epistemological and Experimental Perspectives on Quantum Physics](#)”, D. Greenberger, W.L. Reiter, A. Zeilinger (eds.), Part of the book series “Vienna Circle Institute Yearbook” (VCIY, volume 7), Springer, Dordrecht, 245-247 (1999).
227. Č. Brukner, A. Zeilinger, [Operationally Invariant Information in Quantum Measurements](#), Phys. Rev. Lett. **83**, 3354-3357 (1999).
226. M. Horne, I. Jex, A. Zeilinger, [Schrödinger wave functions in strong periodic potentials with applications to atom optics](#), Phys. Rev. A **59**, 2190-2202 (1999).
225. C. Keller, J. Schmiedmayer, A. Zeilinger, T. Nonn, S. Dürr, G. Rempe, [Adiabatic following in standing-wave diffraction of atoms](#), Appl. Phys. B **69**, 303-309 (1999).

224. A. Zeilinger, [A Foundational Principle for Quantum Mechanics](#), Found. Physics **29**, 631-643 (1999).
223. C. Simon, G. Weihs, A. Zeilinger, [Quantum Cloning and Signaling](#), Acta Phys. Slovaca **49**, 755 (1999).
222. Č. Brukner, A. Zeilinger, [Malus' Law and Quantum Information](#), Acta Phys. Slovaca **89**, 647-652 (1999).
221. M.K. Oberthaler, R. Abfalterer, S. Bernet, C. Keller, J. Schmiedmayer, A. Zeilinger, [Dynamical Diffraction of Atomic Matter Waves by Crystals of Light](#), Phys. Rev. A **60**, 456-472 (1999).
220. M. Żukowski, A. Zeilinger, M.A. Horne, H. Weinfurter, [Independent photons and entanglement. A short overview](#), Int. J. Theor. Phys. **98**, 501-517 (1999).
219. S. Bernet, R. Abfalterer, C. Keller, J. Schmiedmayer, A. Zeilinger, [Matter wave sidebands from a complex potential with temporal helicity in complex space](#), Proc. R. Soc. **455**, 1509-1520 (1999).
218. A. Zeilinger, [Experiment and the Foundations of Quantum Physics](#), in “[More Things in Heaven and Earth, A Celebration of Physics at the Millennium](#)”, B. Bederson (ed.), Springer, Cham, 482-498 (1999). Also published in Rev. Mod. Phys. **71**, 288-297 (1999).
217. J.-W. Pan, A. Zeilinger, [Experimental Realization of Quantum Teleportation](#), Physics **28**, 609 (1999).
216. D. Bouwmeester, J.-W. Pan, M. Daniell, H. Weinfurter, A. Zeilinger, [Observation of Three-Photon Greenberger-Horne-Zeilinger Entanglement](#), Phys. Rev. Lett. **82**, 1345-1349 (1999).
215. M. Horne, I. Jex, A. Zeilinger, [Schroedinger base states in strong periodic media](#), in “[Macroscopic Quantum Coherence. Proceedings of the International Conference. International Conference, Northeastern University, Boston, 11 – 13 July 1997](#)”, E. Sassaroli, Y. Srivastava, J. Swain, A. Widom (eds.), World Scientific, Singapore, 284-300 (1999).
214. R. Abfalterer, S. Bernet, C. Keller, M.K. Oberthaler, J. Schmiedmayer, A. Zeilinger, [Atomic de Broglie waves in periodic light structures](#), in “[Macroscopic Quantum Coherence. Proceedings of the International Conference. International Conference, Northeastern University, Boston, 11 – 13 July 1997](#)”, E. Sassaroli, Y. Srivastava, J. Swain, A. Widom (eds.), World Scientific, Singapore, 301-315 (1999).

1998

213. C. Keller, S. Bernet, J. Schmiedmayer, A. Zeilinger, [Coherent Channeling of Atomic deBroglie Waves](#), in “[Technical digest / 1998 EQEC - European Quantum Electronics Conference](#)”, paper QWC31 (1998).

212. K. Raum, J. Felber, M.A. Horne, P. Geltenbort, A. Zeilinger, [*The Equivalence Principle in Quantum Mechanics and Neutrons that Fall Upwards*](#) (1998).
211. D. Bouwmeester, J.-W. Pan, M. Daniell, H. Weinfurter, M. Żukowski, A. Zeilinger, [*Reply to the comment "A posteriori teleportation" by Braunstein and Kimble*](#), Nature **394**, 841 (1998).
210. A. Zeilinger, [*Fundamentals of Quantum Information*](#), Physics World, 35 (March 1998).
209. A.G. White, J.R. Mitchell, O. Nairz, P.G. Kwiat, [*"Interaction-free" imaging*](#), Phys. Rev. A **58**, 605-613 (1998).
208. D. Bouwmeester, J.-W. Pan, H. Weinfurter, A. Zeilinger, [*Experimental Quantum Teleportation and Entanglement Swapping*](#), in “Technical Digest, EQUEC'98, Glasgow”, 184 (1998).
207. H. Weinfurter, D. Bouwmeester, K. Mattle, J.-W. Pan, M. Eibl, A. Zeilinger, J. Brendel, N. Gisin, J.G. Rarity, P.R. Tapster, [*Quantum Communication and Entanglement*](#), in “Proc. 14th European Meeting on Cybernetics and System Research”, R. Trappl (ed.) 1,95, 346 (1998).
206. C. Keller, R. Abfaltrerer, S. Bernet, M.K. Oberthaler, J. Schmiedmayer, A. Zeilinger, [*Absorptive masks of light: A useful tool for spatial probing in atom optics*](#), J. Vac. Sci. Tech. **16**, 3850-3854 (1998).
205. J.-W. Pan, A. Zeilinger, [*Greenberger-Horne-Zeilinger-state analyzer*](#), Phys. Rev. A **57**, 2208 (1998).
204. D. Bouwmeester, J. Schmiedmayer, H. Weinfurter, A. Zeilinger, [*Quantum Coherence in Experiment: From Teleportation to Massive Objects*](#), in “Gravitation and Relativity: At the Turn of the Millennium. Proceedings of the GR-15 Conference, Pune, India, 1997”, N. Dadhich, J. Narlikar (eds.), IUCAA, Pune, 333 (1998).
203. J.-W. Pan, D. Bouwmeester, H. Weinfurter, A. Zeilinger, [*Experimental Entanglement Swapping: entangling photons that never interacted*](#), Phys. Rev. Lett. **80**, 3891-3894 (1998).
202. A. Zeilinger, [*Quantum Entanglement: A Fundamental Concept Finding its Applications*](#), in “[*Modern Studies of Basic Quantum Concepts and Phenomena. Proceedings of Nobel Symposium 104, Gimo, Sweden*](#)”, E.B. Karlsson, E. Brändas (eds.), World Scientific (1998). Also published in Physica Scripta **76**, 203 (1998).
201. M. Żukowski, A. Zeilinger, M.A. Horne, H. Weinfurter, [*Quest for GHZ states*](#), Acta Phys. Pol. **93**, 187 (1998).

200. G. Weihs, T. Jennewein, C. Simon, H. Weinfurter, A. Zeilinger, [Violation of Bell's inequality under strict Einstein locality conditions](#), Phys. Rev. Lett. **81**, 5039-5043 (1998).
199. D. Bouwmeester, J.-W. Pan, K. Mattle, M. Eibl, H. Weinfurter, A. Zeilinger, M. Żukowski, [Experimental Quantum Teleportation of Arbitrary Quantum States](#), J. Appl. Phys. B **67**, 749 (1998).
198. D. Bouwmeester, J.-W. Pan, K. Mattle, M. Eibl, H. Weinfurter, A. Zeilinger, [Experimental Quantum Teleportation](#), Phil. Trans. R. Soc. Lond. A **356**, 1733 (1998).
197. S. Bernet, R. Abfaltrerer, C. Keller, J. Schmiedmayer, A. Zeilinger, [Diffractive matter wave optics in time](#), J. Opt. Soc. Am. B **15**, 2817 (1998).

1997

196. G. Krenn, A. Zeilinger, [Reply to "Comment on 'Entangled entanglement'"](#), Phys. Rev. A **56**, 4336 (1997).
195. D. Bouwmeester, J.-W. Pan, K. Mattle, M. Eibl, H. Weinfurter, A. Zeilinger, [Experimental Quantum Teleportation](#), Nature **390**, 575-579 (1997).
194. A. Zeilinger, [Get set for the quantum revolution](#), Physics World **10**, 54 (1997).
193. D. Bouwmeester, A. Zeilinger, [Atoms that agree to differ](#), Nature **388**, 827-829 (1997).
192. G. Weihs, H. Weinfurter, A. Zeilinger, [A test of Bell's inequalities with independent observers](#), Acta Phys. Slovaca **47**, 337-340 (1997).
191. P. Kwiat, H. Weinfurter, A. Zeilinger, [Wechselwirkungsfreie Quantenmessung](#), Spektrum Wiss. **42** (1997).
190. Č. Brukner, A. Zeilinger, [Nonequivalence between Stationary Matter Wave Optics and Stationary Light Optics](#), Phys. Rev. Lett. **79**, 2599-2603 (1997).
189. H. Weinfurter, M. Reck, A. Zeilinger, *Quantum Cryptography, Communication and Computation: From Application to Utopia*, in “Proceedings of the Second International Austrian-Israeli Technion Symposium, Graz, Austria”, 35-41 (1997).
188. H. Batelaan, E.M. Rasel, M. Oberthaler, J. Schmiedmayer, A. Zeilinger, [Anomalous Transmission in Atom Optics](#), J. Mod. Opt. **44**, 2629 (1997).
187. R. Abfaltrerer, S. Bernet, C. Keller, M.K. Oberthaler, J. Schmiedmayer, A. Zeilinger, [Atom Waves in Standing Light Waves](#), Acta Phys. Slovaca **47**, 165 (1997).

186. C. Keller, M.K. Oberthaler, R. Abfaltrerer, S. Bernet, J. Schmiedmayer, A. Zeilinger, [Tailored Complex Potentials and Friedel's Law in Atom Optics](#), Phys. Rev. Lett. **79**, 3327 (1997).
185. R. Abfaltrerer, C. Keller, S. Bernet, M.K. Oberthaler, J. Schmiedmayer, A. Zeilinger, [Nanometer Definition of Atomic Beams with Masks of Light](#), Phys. Rev. A. **56**, R4365 (1997).
184. S. Bernet, R. Abfaltrerer, C. Keller, M.K. Oberthaler, J. Schmiedmayer, A. Zeilinger, [Atom Holography at Light Structures](#), J. Imag. Sci. and Tech. **41**, 324 (1997).
183. D. Bruss, A. Ekert, S.F. Huelga, J.-W. Pan, A. Zeilinger, [Quantum Computing with Controlled-NOT and Few Qubits](#), Phil. Trans. R. Soc. Lond. A **355**, 2259 (1997).
182. A. Zeilinger, [Quantum Teleportation and the Non-Locality of Information](#), Phil. Trans. R. Soc. Lond. A **355**, 2401-2404 (1997).
181. A. Zeilinger, M.A. Horne, H. Weinfurter, M. Żukowski, [Three-Particle Entanglements from Two Entangled Pairs](#), Phys. Rev. Lett. **78**, 3031-3034 (1997).
180. Č. Brukner, A. Zeilinger, [Diffraction of Matter Waves in Space and in Time](#), Phys. Rev. A **56**, 3804-3824 (1997).
179. M. Żukowski, A. Zeilinger, M.A. Horne, [Realizable Higher-dimensional Two-particle Entanglements via Multiport Beam Splitters](#), Phys. Rev. A **55**, 2564 (1997).
178. G. Weihs, H. Weinfurter, A. Zeilinger, [Towards a Long Distance Bell-Experiment with Independent Observers](#), in “[Experimental Metaphysics. Quantum Mechanical Studies for Abner Shimony](#)”, R.S. Cohen, M.A. Horne, J.J. Stachel (eds.), Kluwer, Dordrecht, 271-280 (1997).
177. A. Zeilinger, [Entanglement and Indistinguishability: Coherence Experiments with Photon Pairs and Triplets](#), in “[Atomic Physics 15. Fifteenth International Conference on Atomic Physics, Zeeman-Effect Centenary, Amsterdam, The Netherlands, 5-9 August 1996](#)”, World Scientific, Singapore, 47 (1997).

1996

176. H. Batelaan, S. Bernet, M.K. Oberthaler, E.M. Rasel, J. Schmiedmayer, A. Zeilinger, [Classical and Quantum Atom Fringes](#), in “[Atom Interferometry](#)”, P.R. Berman (ed.), Academic Press, San Diego, 85 (1997).
175. A. Zeilinger, [Jenseits jeder Gewißheit. Das Rätsel der Quantenwelt](#), Museum in Progress / Landesmuseum Joanneum, Graz (1996).

174. A. Zeilinger, *The Changing Metaphysics of Science*, Remarks at the Final Panel of the Interdisciplinary Workshop, IFK, ESI & OEAW, Vienna (March 1996).
173. K. Raum, M. Weber, A. Zeilinger, *Gravity and inertia in neutron crystal optics and VCN interferometry*, J. Phys. Soc. Japan **65**, 277-280 (1996).
172. P.G. Kwiat, K. Mattle, H. Weinfurter, A. Zeilinger, [Polarization-Entangled Photons and Quantum Dense Coding](#), in “International Quantum Electronics Conference 1996, Sydney Australia, 14-19 July 1996”, OSA Technical Digest, Optica Publishing Group, FK6 (1996).
171. P.G. Kwiat, H. Weinfurter, A. Zeilinger, [Quantum Seeing in the Dark](#), Sci. Am. **275**, 52-58 (1996).
170. A. Zeilinger, T. Herzog, M.A. Horne, P.G. Kwiat, K. Mattle, H. Weinfurter, [Path Information in Quantum Interferometry](#), in “[Coherence and Quantum Optics VII. Proceedings of the Seventh Rochester Conference on Coherence and Quantum Optics, held at the University of Rochester, June 7-10, 1995](#)”, J.H. Eberly, L. Mandel, E.W. Eberly (eds.), Springer, New York, 305-312 (1996).
169. D. Greenberger, A. Zeilinger, [Teoria kwantowa: wciąż zwariowana po tylu latach](#) (*Quantum theory: still crazy after all these years*), Postepy Fizyki **47**, 339 (1996).
168. D.N. Greenberger, M.A. Horne, A. Zeilinger, *Tangled Concepts about Entangled States*, in “Quantum Interferometry. Proceedings of an Adriatico Workshop, Trieste, March 1996”, F. DeMartini, F. Denardo, Y. Shih (eds.), VCH, Weinheim, 119-134 (1996).
167. K. Mattle, M. Eibl, H. Weinfurter, A. Zeilinger, [Experimental Quantum Communication](#), in “Quantum Electronics and Laser Science Conference”, OSA Technical Digest, Optica Publishing Group, QFE3 (1996).
166. S. Bernet, M.K. Oberthaler, R. Abfaltrerer, J. Schmiedmayer, A. Zeilinger, [Coherent Frequency Shift of Atomic Matter Waves](#), Phys. Rev. Lett. **77**, 5160 (1996).
165. M.K. Oberthaler, R. Abfaltrerer, S. Bernet, J. Schmiedmayer, A. Zeilinger, [Atom Waves in Crystals of Light](#), Phys. Rev. Lett. **77**, 4980-4983 (1996).
164. G. Krenn, A. Zeilinger, [Entangled Entanglement](#), Phys. Rev. A **54**, 1793 (1996).
163. M.K. Oberthaler, S. Bernet, E.M. Rasel, J. Schmiedmayer, A. Zeilinger, [Inertial Sensing with Classical Atomic Beams](#), Phys. Rev. A **54**, 3165 (1996).

162. P.G. Kwiat, H. Weinfurter, A. Zeilinger, *Interaction-Free Measurement of a Quantum Object: On the Breeding of "Schrödinger Cats"*, in “*Coherence and Quantum Optics VII. Proceedings of the Seventh Rochester Conference on Coherence and Quantum Optics, held at the University of Rochester, June 7-10, 1995*”, J.H. Eberly, L. Mandel, E.W. Eberly (eds.), Springer, New York, 673-674 (1996).
161. E.M. Rasel, M.K. Oberthaler, H. Batelaan, S. Bernet, J. Schmiedmayer, A. Zeilinger, *An Interferometer for Atoms with Standing Light Waves*, in “*Coherence and Quantum Optics VII. Proceedings of the Seventh Rochester Conference on Coherence and Quantum Optics, held at the University of Rochester, June 7-10, 1995*”, J.H. Eberly, L. Mandel, E.W. Eberly (eds.), Springer, New York, 549-550 (1996).
160. P. Domokos, P. Adam, J. Janszky, A. Zeilinger, *Atom de Broglie Wave Deflection by a Single Cavity Mode in the Few-Photon Limit: Quantum Prism*, Phys. Rev. Lett. **77**, 1663 (1996).
159. S.N. Chormaic, S. Franke, J. Schmiedmayer, A. Zeilinger, *Concepts of Temporal Mach-Zehnder Interferometry with Atoms*, Acta Phys. Slovaca **46**, 463 (1996).
158. S. Bernet, M. Oberthaler, R. Abfaltrerer, J. Schmiedmayer, A. Zeilinger, *Modulation of atomic de Broglie waves using Bragg diffraction*, Quantum Semiclass. Opt. **8**, 497 (1996).
157. G. Weihs, M. Reck, H. Weinfurter, A. Zeilinger, *Two-Photon Interference in Optical Fiber Multiports*, Phys. Rev. A **54**, 893 (1996).
156. K. Mattle, H. Weinfurter, P.G. Kwiat, A. Zeilinger, *Dense Coding in Experimental Quantum Communication*, Phys. Rev. Lett. **76**, 4656-4659 (1996).
155. P.W. Milonni, H. Fearn, A. Zeilinger, *Theory of Two-Photon Down-Conversion in the Presence of Mirrors*, Phys. Rev. A **53**, 4556 (1996).
154. M. Michler, K. Mattle, H. Weinfurter, A. Zeilinger, *Interferometric Bell-State Analysis*, Phys. Rev. A **53**, R1209-R1212 (1996).
153. A. Zeilinger, *On the Interpretation and Philosophical Foundation of Quantum Mechanics*, in: “Vastakohtien todellisuus. Festschrift for K.V. Laurikainen”, U. Ketvel et al. (eds.), Helsinki University Press, Helsinki (1996).
152. A. Zeilinger, H. Weinfurter, *Informationsübertragung und Informationsverarbeitung in der Quantenwelt*, Phys. Bl. **52**, 219-224 (1996).
151. G. Weihs, M. Reck, H. Weinfurter, A. Zeilinger, *All-fiber three-path Mach-Zehnder interferometer*, Opt. Lett. **21**, 302 (1996).

1995

150. D. Greenberger, A. Zeilinger, *Quantum Theory: Still Crazy After All These Years*, Phys. World **8**, 33 (1995).
149. M. Żukowski, A. Zeilinger, M.A. Horne, A. Ekert, *Extensions of Bell Theorem: Experiment Involving Independent Sources in "Event-Ready" Configuration*, in: “Fundamental Problems in Quantum Physics”, M. Ferrero, A. van der Merwe (eds.), Kluwer, Dordrecht, 363-373 (1995).
148. T.J. Herzog, P.G. Kwiat, H. Weinfurter, A. Zeilinger, *Complementarity and the Quantum Eraser*, Phys. Rev. Lett. **75**, 3034 (1995).
147. B. Dopfer, P.G. Kwiat, H. Weinfurter, A. Zeilinger, *Brillouin Scattering and Dynamical Diffraction of Entangled Photon Pairs*, Phys. Rev. A **52**, R2531 (1995).
146. E.M. Rasel, M.K. Oberthaler, H. Batelaan, J. Schmiedmayer, A. Zeilinger, *Atom Wave Interferometry with Diffraction Gratings of Light*, Phys. Rev. Lett. **75**, 2633 (1995).
145. A. Zeilinger, *Experiment, Entanglement and the Foundations of Quantum Mechanics*, in “The Foundational Debate”, W. DePauli-Schimanovich, E. Köhler, F.W. Stadler (eds.), Kluwer, Dordrecht, 13-19 (1995).
144. A. Zeilinger, *Quantum Correlations Beyond Bell's Inequalities*, in “Advances in Quantum Phenomena”, E. Beltrametti, J.M. Levy-Leblond (eds.), Plenum, New York, 215 (1995).
143. A. Zeilinger, *Einstein-Podolsky-Rosen Interferometry*, Ann. Israel Phys. Soc. **12**, 57-72 (1995).
142. P.G. Kwiat, K. Mattle, H. Weinfurter, A. Zeilinger, A.V. Sergienko, Y.H. Shih, *New High-Intensity Source of Polarization-Entangled Photon Pairs*, Phys. Rev. Lett. **75**, 4337-4341 (1995).
141. K. Mattle, M. Michler, H. Weinfurter, A. Zeilinger, M. Żukowski, *Non-Classical Statistics at Multiport Beam Splitters*. This paper was accepted for publication in the second part of “Fundamentals of Quantum Optics”, which was to be published as a supplement to Applied Physics B, which never appeared (1995).
140. D.M. Greenberger, M.A. Horne, A. Zeilinger, *Nonlocality of a Single Photon?*, Phys. Rev. Lett. **75**, 2064 (1995).
139. G. Krenn, A. Zeilinger, *Entangled Entanglement*, in “Fundamental Problems in Quantum Theory”, D.M. Greenberger, A. Zeilinger (eds.), Ann. N. Y. Acad. Sci. **755**, 873 (1995).

138. M. Żukowski, A. Zeilinger, H. Weinfurter, [Entangling Photons Radiated by Independent Pulsed Sources](#), in “Fundamental Problems in Quantum Theory”, D.M. Greenberger, A. Zeilinger (eds.), Ann. N. Y. Acad. Sci. **755**, 91 (1995).
137. H. Weinfurter, T. Herzog, P.G. Kwiat, J.G. Rarity, A. Zeilinger, M. Żukowski, [Frustrated Downconversion: Virtual or Real Photons?](#), in “Fundamental Problems in Quantum Theory”, D.M. Greenberger, A. Zeilinger (eds.), Ann. N. Y. Acad. Sci. **755**, 61 (1995).
136. P. Kwiat, H. Weinfurter, T. Herzog, A. Zeilinger, M. Kasevich, [Interaction-Free Measurement](#), Phys. Rev. Lett. **74**, 4763-4766 (1995).
135. K. Raum, M. Koellner, A. Zeilinger, M. Arif, R. Gähler, [Effective-Mass Enhanced Deflection of Neutrons in Noninertial Frames](#), Phys. Rev. Lett. **74**, 2859 (1995). Republished in “Fundamental Problems in Quantum Theory”, D.M. Greenberger, A. Zeilinger (eds.), Ann. N. Y. Acad. Sci. **755**, 888-891 (1995).
134. P. Kwiat, H. Weinfurter, T. Herzog, A. Zeilinger, M. Kasevich, [Experimental Realization of “Interaction-Free” Measurement](#), in “Fundamental Problems in Quantum Theory”, D.M. Greenberger, A. Zeilinger (eds.), Ann. N. Y. Acad. Sci. **755**, 129-138 (1995).
133. I. Jex, S. Stenholm, A. Zeilinger, [Hamiltonian Theory of a Symmetric Multiport](#), Opt. Comm. **117**, 95-101 (1995).

1994

132. T. Herzog, J.G. Rarity, H. Weinfurter, A. Zeilinger, [Reply to Senitzky, “Classical Interpretation of ‘Frustrated Two-Photon Creation via Interference’”](#), Phys. Rev. Lett. **73**, 3040-3041 (1994).
131. M. Reck, A. Zeilinger, H.J. Bernstein, P. Bertani, [Experimental Realization of Any Discrete Unitary Operator](#), Phys. Rev. Lett. **73**, 58-61 (1994).
130. A. Zeilinger, H.J. Bernstein, M.A. Horne, [Information Transfer with Two-State Two-Particle Quantum Systems](#), J. Mod. Opt. **41**, 2375 (1994).
129. A. Zeilinger, [Probing Higher Dimensions of Hilbert Space in Experiment](#), Acta Phys. Pol. A **85**, 717 (1994).
128. T.J. Herzog, J.G. Rarity, H. Weinfurter, A. Zeilinger, [Frustrated Two-Photon Creation via Interference](#), Phys. Rev. Lett. **72**, 629 (1994).
127. M. Horne, D. Greenberger, A. Zeilinger, *Two-Particle-Fringes Dependent on the Sum of the Coordinates*, in “Quantum Interferometry”, F. DeMartini, A. Zeilinger (eds.), World Scientific, Singapore, 194-195 (1994).

126. M. Reck, A. Zeilinger, *Quantum Phase Tracing of Correlated Photons in Optical Multiports*, in “Quantum Interferometry”, F. DeMartini, A. Zeilinger (eds.), World Scientific, Singapore, 170-177 (1994).
125. E.M. Rasel, K. Eder, J. Felber, R. Gähler, R. Golub, W. Mampe, A. Zeilinger, *Interferometry with Very Cold Neutrons*, in “[Waves and Particles in Light and Matter](#)”, A. Merwe, A. Garuccio (eds.), Springer, New York, 429-438 (1994).

1993

124. D.M. Greenberger, M.A. Horne, A. Zeilinger, [*Multiparticle Interferometry and the Superposition Principle*](#), Phys. Today **46**, 22-29 (1993).
123. M. Żukowski, A. Zeilinger, M.A. Horne, A.K. Ekert, [*Event-Ready-Detectors Bell Experiment via Entanglement Swapping*](#), Phys. Rev. Lett. **71**, 4287-4290 (1993).
122. A. Zeilinger, M. Żukowski, M.A. Horne, H.J. Bernstein, D.M. Greenberger, [*Einstein-Podolsky-Rosen Correlations in Higher Dimensions*](#), in “Fundamental Aspects of Quantum Theory”, J. Anandan, J.L. Safko (eds.), World Scientific, Singapore, 265-275 (1993). Reprinted by Springer in 2012.
121. H.J. Bernstein, D.M. Greenberger, M.A. Horne, A. Zeilinger, [*Bell theorem without inequalities for two spinless particles*](#), Phys. Rev. A **47**, 78-84 (1993).
120. G. Badurek, H. Weinfurter, R. Gähler, A. Kollmar, S. Wehinger, A. Zeilinger, [*Nondispersive Phase of the Aharonov-Bohm Effect*](#), Phys. Rev. Lett. **71**, 307-311 (1993).
119. D.M. Greenberger, H.J. Bernstein, M.A. Horne, A. Shimony, A. Zeilinger, *Proposed GHZ experiments using cascades of down-conversions*, in “[*Quantum Control and Measurement*](#)”, H. Ezawa, Y. Murayama (eds.), Elsevier, 23-28 (1993).
118. A. Zeilinger, H.J. Bernstein, D.M. Greenberger, M.A. Horne, M. Żukowski, [*Controlling Entanglement in Quantum Optics*](#), in “[*Quantum Control and Measurement*](#)”, H. Ezawa, Y. Murayama (eds.), Elsevier, 9-22 (1993).

1992

117. A. Zeilinger, [*Physik und Wirklichkeit – Neuere Entwicklungen zum Einstein-Podolsky-Rosen Paradoxon*](#), in “Naturwissenschaft und Weltbild. Mathematik und Quantenphysik in unserem Denk- und Wertesystem”, H.-C. Reichel, E. Prat de la Riba (eds.), Hölder, 99-121 (1992).

116. A. Zeilinger, M.A. Horne, D. Greenberger, [*Bell's Theorem Without Inequalities and Beyond*](#), in “[*Quantum Measurements in Optics*](#)”, P. Tombesi, D.F. Walls (eds.), Springer, New York, 369-375 (1992).
115. A. Zeilinger, M.A. Horne, D.M. Greenberger, [*Higher-Order Quantum Entanglement*](#), “Proceedings of Squeezed States and Quantum Uncertainty, College Park”, D. Han, Y.S. Kim, W.W. Zachary (eds.), NASA Conference Publication 3135 (1992).
114. M. Tschernitz, R. Gähler, W. Mampe, B. Schillinger, A. Zeilinger, [*Precision measurement of single slit diffraction with very cold neutrons*](#), Phys. Lett. A **164**, 365-368 (1992).

1991

113. A. Zeilinger, [*Physiker auf der Suche nach der Wirklichkeit*](#), in „Naturherrschaft. Wie Mensch und Welt sich in der Wissenschaft begegnen“, H. Thomas (ed.), Busse Seewald, Herford, 99-129 (1991).
112. R. Gähler, A. Zeilinger, [*Wellenoptische Experimente mit sehr kalten Neutronen*](#), PhyDid **22**, 217 (1994).
111. M. Żukowski, A. Zeilinger, [*Test of the Bell's Inequality Based on Phase and linear Momentum as well as Spin*](#), Phys. Lett. A **155**, 69 (1991).
110. A. Zeilinger, R. Gähler, M.A. Horne, [*On the Topological Nature of the Aharonov-Casher Effect*](#), Phys. Lett. A **154**, 93-95 (1991).
109. K. Eder, M. Gruber, A. Zeilinger, R. Gähler, W. Mampe, [*Diffraction of Very Cold Neutrons at Phase Gratings*](#), Physica B **172**, 329 (1991).
108. R. Gähler, A. Zeilinger, [*Wave-Optical Experiments with Very-Cold Neutrons*](#), Amer. J. Phys. **59**, 316 (1991).
107. J. Summhammer, A. Zeilinger, [*Fundamental and applied neutron interferometry*](#), Physica B **174**, 396-402 (1991).
106. G. Grössing, A. Zeilinger, [*Zeno's Paradox in Quantum Cellular Automata*](#), Physica D **50**, 321-326 (1991).

1990

105. M. Horne, A. Shimony, A. Zeilinger, [*Down-conversion Photon Pairs: A New Chapter In the History of Quantum Mechanical Entanglement*](#), in “Quantum Coherence. Proceedings of the International Conference on Fundamental Aspects of Quantum Theory to Celebrate 30 Years Of The Aharonov-Bohm-Effect”, J. Anandan (ed.), World Scientific, Singapore, 356-372 (1990).

104. A. Zeilinger, H.J. Bernstein, D.M. Greenberger, M.A. Horne, *Quantum Reality and Higher-Order Correlations: Two Remarks on Entanglement*, in “[Symposium on the Foundations of Modern Physics](#)”, P. Lahti, P. Mittelstaedt (eds.), World Scientific, Singapore, 487 (1990).
103. M.A. Horne, A. Shimony, A. Zeilinger, [Two-Particle Interferometry](#), Nature **347**, 429-430 (1990).
102. A. Zeilinger, [Problemi di interpretazione e ricerca di paradigmi in meccanica quantistica](#), in “Che cos' e la realta”, F. Selleri (ed.), Jaca, Milano, 123-137 (1990).
101. A. Zeilinger, [Experiment and Quantum Measurement Theory](#), in “Quantum Theory Without Reduction”, M. Cini, J.-M. Levy-Leblond (eds.), Hilger, Bristol, 9-26 (1990).
100. M.A. Horne, A. Shimony, A. Zeilinger, [Introduction to Two-Particle Interferometry](#), in “Sixty-Two Years of Uncertainty: Historical, Philosophical, and Physical Inquiries into the Foundations of Quantum Mechanics”, A.I. Miller (ed.), Plenum, New York, 113-119 (1990).
99. D.M. Greenberger, M.A. Horne, A. Zeilinger, [Bell's Theorem without Inequalities](#), Am. J. Phys. **58**, 1131-1143 (1990).
98. T. Chattopadhyay, A. Zeilinger, M. Wacenovsky, H.W. Weber, O.B. Hyun, D.K. Finnemore, [Search for Magnetic Ordering of Tm Moments in TmBa Cu O down to 90 mK](#), Solid State Commun. **73**, 721 (1990).
97. A. Zeilinger, [The Planck Stroll](#), Amer. J. Phys. **58**, 103 (1990).
96. A. Zeilinger, [Fundamentale Experimente mit Materiewellen und deren Interpretation](#), in “Wieviele Leben hat Schrödingers Katze? Zur Physik und Philosophie der Quantenmechanik”, J. Audretsch, K. Mainzer (eds.), B.I. Wissenschaftsverlag, Mannheim, 65-94 (1990).

1989

95. A. Zeilinger, M.A. Horne, [Aharonov-Bohm with Neutrons](#), Phys. World **2**, 23 (1989).
94. M. Gruber, K. Eder, A. Zeilinger, R. Gähler, W. Mampe, W. Drexel, [A Phase-Grating Interferometer for Very Cold Neutrons](#), Phys. Lett. A **140**, 363 (1989).
93. M.A. Horne, A. Shimony, A. Zeilinger, [Two-Particle Interferometry](#), Phys. Rev. Lett. **62**, 2209-2212 (1989).
92. M.A. Horne, A. Zeilinger, [Speakable and Unspeakable in Quantum Mechanics](#), Amer. J. Phys. **42**, 630 (1989). Invited book review.

91. A. Zeilinger, K. Eder, R. Gähler, M. Gruber, W. Mampe, [The New Very-Cold-Neutron Optics Setup at ILL](#), Nucl. Instr. Meth. A **284**, 171 (1989).
90. D. Greenberger, M.A. Horne, A. Zeilinger, [Going beyond Bell's Theorem](#), in “Bell's Theorem, Quantum Theory, and Conceptions of the Universe”, M. Kafatos (ed.), Kluwer, Dordrecht, 69-72 (1989).

1988

89. A. Zeilinger, [Quantum Implications, Essays in Honour of David Bohm](#), Phys. Today **41**, 72 (1988). Invited book review.
88. G. Grössing, A. Zeilinger, [Quantum Cellular Automata, A Corrigendum](#), Complex Syst. **2**, 611 (1988).
87. F. Selleri, A. Zeilinger, [Local Deterministic Description of Einstein-Podolski-Rosen Experiments](#), Found. Phys. **18**, 1141 (1988).
86. A. Zeilinger, H. Rauch, [Neutron Interferometry, A Status Report](#), in “Nejtronnaja Fizika”, Akademie der Wissenschaften der UdSSR, Moskau, 146-162 (1988).
85. A. Zeilinger, R. Gähler, C.G. Shull, W. Treimer, W. Mampe, [Single- and double-slit diffraction of neutrons](#), Rev. Mod. Phys. **60**, 1067-1073 (1988).
84. G. Grössing, A. Zeilinger, [Structures in Quantum Cellular Automata](#), Phys. B **151**, 366 (1988).
83. M.A. Horne, K.D. Finkelstein, C.G. Shull, A. Zeilinger, H.J. Bernstein, [Neutron Spin-Pendellösung Resonance](#), Phys. B **151**, 189 (1988).
82. A. Zeilinger, M.A. Horne, [Neutron Focusing Effects in Perfect-Crystal Systems](#), Phys. B **151**, 157 (1988).
81. J. Kamesberger, A. Zeilinger, [Numerical Solution of a Nonlinear Schrödinger Equation for Neutron Optics Experiments](#), Phys. B **151**, 193 (1988).
80. G. Grössing, A. Zeilinger, [A Conservation Law in Quantum Cellular Automata](#), Phys. D **31**, 70-77 (1988).
79. K. Svozil, A. Zeilinger, [Breakdown of Quantum Electrodynamics in \(g-2\) Experiments](#), Phys. Scr. **21**, 122 (1988).
78. G. Grössing, A. Zeilinger, [Quantum Cellular Automata](#), Complex Syst. **2**, 197 (1988).
77. M. Horne, A. Zeilinger, [A Possible Spin-Less Experimental Test of Bell's Inequality](#), in “[Microphysical Reality and Quantum Formalism](#)”, A. van der Merwe, F. Selleri, G. Tarozzi (eds.), Kluwer, Dordrecht, 401 (1988).

1987

76. A. Zeilinger, [Interpretationsprobleme und Paradigmensuche in der Quantenmechanik](#), in “Ganzheitsphysik. Grazer Gespräche 1986”, M. Heindler, F.E. Moser (eds.), TU Graz, 212 (1987).
75. A. Zeilinger, [Das Einstein-Podolsky-Rosen-Paradoxon](#), in “Ganzheitsphysik. Grazer Gespräche 1986”, M. Heindler, F.E. Moser (eds.), TU Graz, 29 (1987).

1986

74. K. Svozil, A. Zeilinger, [Dimension of Space-Time](#), Int. J. Mod. Phys. A **1**, 971 (1986).
73. M.A. Horne, A. Zeilinger, [Einstein-Podolsky-Rosen Interferometry](#), Ann. N. Y. Acad. Sci. **480**, 469-474 (1986).
72. A. Zeilinger, [Testing Bell's Inequalities with Periodic Switching](#), Phys. Lett. A **118**, 1 (1986).
71. A. Zeilinger, [Three Gedanken Experiments on Complementarity in Double-Slit Diffraction](#), Ann. N. Y. Acad. Sci. **480**, 164-174 (1986).
70. A. Zeilinger, C.G. Shull, M.A. Horne, K.D. Finkelstein, [Effective Mass of Neutrons Diffracting in Crystals](#), Phys. Rev. Lett. **57**, 3089-3092 (1986).
69. A. Zeilinger, [Complementarity in Neutron Interferometry](#), Phys. B **137**, 235 (1986).
68. A. Zeilinger, [Generalized Aharonov-Bohm Experiments with Neutrons](#), in “Fundamental Aspects of Quantum Theory, Como 1985”, V. Gorini, A. Figuereido (eds.), Plenum Press, 311 (1986).
67. A. Zeilinger, [Long Wavelength Neutron Interferometry](#), in “Proceedings of the Workshop on the Investigation of Fundamental Interactions with Cold Neutrons, NBS Special Publication 711”, G. Greene (ed.), NBS, Gaithersburg, 112 (1986).
66. K.D. Finkelstein, C.G. Shull, A. Zeilinger, [Magnetic Neutrality of the Neutron](#), Phys. B **136**, 131-133 (1986).
65. A. Zeilinger, M.A. Horne, [Neutron Lenses in Interferometry](#), Phys. B **136**, 141 (1986).
64. A. Zeilinger, [Testing Quantum Superposition with Cold Neutrons](#), in “Quantum Concepts in Space and Time”, C.J. Isham, R. Penrose (eds.) Oxford University Press, Oxford, 17 (1986).

1985

63. M.A. Horne, A. Zeilinger, [A Bell-Type EPR Experiment Using Linear Momenta](#), in “Symposium on the Foundations of Modern Physics, Joensuu”, P. Lahti, P. Mittelstaedt (eds.), World Scientific, Singapore, 435-439 (1985).
62. J.Arthur, C.G. Shull, A. Zeilinger, [Dynamical Neutron Diffraction in a Thick-Crystal Interferometer](#), Phys. Rev. B **32**, 5753 (1985).
61. A. Zeilinger, K. Svozil, [Measuring the Dimension of Space-Time](#), Phys. Rev. Lett. **54**, 2553-1445 (1985).

1984

60. A. Zeilinger, C.G. Shull, M.A. Horne, S.A. Werner, [Measurement of the Effective Mass Enhancement of the Deflection of Neutrons in Perfect Crystals](#), Acta Cryst. A **30**, Supplement, C-345 (1984).
59. C.G. Shull, A. Zeilinger, [A One-Axis Flight-Time Neutron Spectrometer for Student Use](#), Acta Cryst. A **40**, Supplement, C-446 (1984).
58. A.G. Klein, A. Zeilinger, [Wave Optics with Cold Neutrons](#), J. physique **45**, C3-239 (1984).
57. A. Zeilinger, [Generalized Aharonov-Bohm and Wheeler-Type Delayed Choice Experiments with Neutrons](#), J. physique **45**, C3-213-216 (1984).
56. A. Zeilinger, M.A. Horne, H.J. Bernstein, [Symmetry Violations and Schwinger Scattering in Neutron Interferometry](#), J. physique **45**, C3-209 (1984).
55. A. Zeilinger, [Progress in Physics with Neutrons at Small Reactors](#), Atomkernenergie **44**, Supplement, 3 (1984).

1983

54. D. Greenberger, M.A. Horne, C.G. Shull, A. Zeilinger, [Delayed Choice Experiments with the Neutron Interferometer](#), in “Foundations of Quantum Mechanics in the Light of New Technology. ISQM - Tokyo’83”, S. Kamefuchi et al. (eds.), Phys. Soc. Japan, Tokyo, 294-300 (1983).
53. A. Zeilinger, M.A. Horne, C.G. Shull, [Search for Unorthodox Phenomena by Neutron Interference Experiments](#), in “Foundations of Quantum Mechanics in the Light of New Technology. ISQM - Tokyo’83”, S. Kamefuchi et al. (eds.), Phys. Soc. Japan, Tokyo, 289-293 (1983).

52. A. Zeilinger, T.J. Beatty, [Bragg Diffraction and Surface Reflection of Neutrons from Perfect Crystals at Grazing Incidence](#), Phys. Rev. B **27**, 7239-7250 (1983).
51. A. Zeilinger, C.G. Shull, J. Arthur, M.A. Horne, [Bragg-Case Neutron Interferometry](#), Phys. Rev. A **28**, 487-489 (1983).
50. M.A. Horne, A. Zeilinger, G.I. Opat, A.G. Klein, [Neutron Phase Shift in Moving Matter](#), Phys. Rev. A **28**, 1 (1983).
49. J. Summhammer, G. Badurek, H. Rauch, U. Kischko, A. Zeilinger, [Direct Observation of Fermion Spin Superposition by Neutron Interferometry](#), Phys. Rev. A **27**, 2523-2532 (1983).
48. G. Badurek, H. Rauch, J. Summhammer, U. Kischko, A. Zeilinger, [Direct Verification of the Quantum Spin-State Superposition Law](#), J. Phys. A **16**, 1133-1139 (1983).

1982

47. D. Bader, H. Rauch, A. Zeilinger, [An Ultra Small Angle Scattering Study of Hydrogen in Metals](#), Z. Naturforsch. A **37**, 512-516 (1982).

1981

46. A. Zeilinger, R. Gähler, C.G. Shull, W. Treimer, [Experimental Status and Recent Results of Neutron Interference Optics](#), in “Symposium on Neutron Scattering, Argonne”, AIP Conference Proceedings **89**, 93 (1981).
45. A. Zeilinger, [Spin Directions of Interfering Beams in Quantum Interferometry](#), Nature **294**, 544-546 (1981).
44. A.G. Klein, G.I. Opat, A. Cimmino, A. Zeilinger, W. Treimer, R. Gähler, [Neutron Propagation in Moving Matter: The Fizeau Experiment with Massive Particles](#), Phys. Rev. Lett. **46**, 1551-1554 (1981).
43. A. Zeilinger, [General Properties of Lossless Beam Splitters in Interferometry](#), Am. J. Phys. **49**, 882 (1981).
42. H. Rauch, A. Zeilinger, [Demonstration of SU\(2\)-Symmetry by Neutron Interferometry](#), Hadronic J. **4**, 1280 (1981).
41. R. Gähler, A.G. Klein, A. Zeilinger, [Neutron Optical Tests of Nonlinear Wave Mechanics](#), Phys. Rev. A **23**, 1611-1617 (1981).

1980

40. C.G. Shull, A. Zeilinger, G.L. Squires, M.A. Horne, D.K. Atwood, J. Arthur, [Anomalous Flight Time of Neutrons through Diffracting Crystals](#), Phys. Rev. Lett. **44**, 1715-1718 (1980).
39. G. Badurek, H. Rauch, A. Zeilinger, [Dynamic Concepts in Neutron Polarization](#), Z. Phys. B **38**, 303 (1980).
38. H.J. Bernstein, A. Zeilinger, [Exact Spin Rotation by Precession During Neutron Interferometry](#), Phys. Lett. A **75**, 169 (1980).
37. G. Badurek, H. Rauch, A. Zeilinger, [Neutron Phase Echo Concept and a Proposal for a Dynamical Neutron Polarization Method](#), in “Neutron Spin Echo”, F. Mezei (ed.), Lecture Notes in Physics **128**, Springer, 136 (1980).
36. A. Zeilinger, [Polarization Effects in Neutron Diffraction at Perfect Non-Magnetic Crystals](#), Nukleonika **25**, 871 (1980).
35. A. Zeilinger, [Perfect Crystal Neutron Optics](#), in “International Workshop on Imaging Processes and Coherence in Physics. Les Houches 1979”, Lecture Notes in Physics **112**, Springer, 267 (1980).

1979

34. A. Zeilinger, C.G. Shull, M.A. Horne, G.L. Squires, [Two-Crystal Neutron Interferometry](#), in “Neutron Interferometry”, U. Bonse, H. Rauch (eds.), Oxford University Press, Oxford, 48-59 (1979).
33. A. Zeilinger, [On the Aharonov-Bohm Effect](#), Lett. Nuovo Cimento (1971-1985) **25**, 333-336 (1979).
32. A. Zeilinger, C.G. Shull, [Magnetic Field Effects on Dynamical Diffraction of Neutrons by Perfect Crystals](#), Phys. Rev. B **19**, 3957 (1979).
31. A. Zeilinger, [Laue-Case Dynamical Neutron Diffraction With Perfect Nonmagnetic Crystals in Magnetic Fields](#), in [“International Workshop on Neutron Interferometry, Grenoble 1978”](#), Oxford University Press, Oxford 355 (1979).
30. M.A. Horne, A. Zeilinger, [Fizeau Effects for Thermal Neutrons](#), in [“International Workshop on Neutron Interferometry, Grenoble 1978”](#), Oxford University Press, Oxford, 350-354 (1979).
29. A. Zeilinger, [Some Magnetic and Spin Effects in Neutron Interferometry](#), in “International Workshop on Neutron Interferometry, Grenoble 1978”, Oxford University Press, Oxford, 241 (1979).

1978

-
28. H. Rauch, E. Seidl, A. Zeilinger, W. Bauspiess, U. Bonse, [Hydrogen Detection in Metals by Neutron Interferometry](#), J. Appl. Phys. **49**, 2731 (1978).

1977

-
27. A.A. Harms, A. Zeilinger, [A Comment on the Total Unsharpness in Radiography](#), Phys. Med. Biol. **22**, 1207 (1977).
26. W.A. Pochman, A. Zeilinger, H. Böck, [Detection of Cracks in Triga Fuel Rods by Neutron Radiography](#), Atomkernenergie **29**, 231 (1977).
25. H. Rauch, A. Zeilinger, [Hydrogen Transport Studies Using Neutron Radiography](#), At. Energy Rev. **15**, 249 (1977).
24. A. Zeilinger, W.A. Pochman, [Neutron Radiographic Measurements of the Diffusion of H in b-Ti, V, Nb and Ta](#), J. Phys. F **7**, 575 (1977).
23. A.A. Harms, A. Zeilinger, [A New Formulation of Total Unsharpness in Radiography](#), Phys. Med. Biol. **22**, 70 (1977).

1976

-
22. A. Zeilinger, W.A. Pochman, [New Method for the Measurement of Hydrogen Diffusion in Metals](#), J. Appl. Phys. **47**, 5478 (1976).
21. H. Rauch, G. Badurek, W. Bauspiess, U. Bonse, A. Zeilinger, [Determination of Scattering Lengths and Magnetic Spin Rotations by Neutron Interferometry](#), in “International Conference on the Interaction of Neutrons with Nuclei, Lowell, Mass”, ERDA (CONF-760715-P2), 1027 (1976).
20. A. Zeilinger, [General Formulation of Spin Rotations in Neutron Interferometry](#), Z. Phys. B **25**, 97-100 (1976).
19. A. Zeilinger, M. Suleiman, H. Rauch, [Experimental Diffusion Measurements of Light and Heavy Water Mixing Using Neutron Radiography](#), Atomkernenergie **28**, 183 (1976).
18. A. Zeilinger, W.A. Pochman, H. Rauch, M. Suleiman, [Neutronographic Measurements of the Diffusion of Hydrogen and Hydrogenous Substances in Liquid and Solids](#), in “4th European Conference of Triga Reactor Users, Vienna”, General Atomic, GA-TOC-8, 42856 (1976).
17. G. Eder, A. Zeilinger, [Interference Phenomena and Spin Rotation of Neutrons by Magnetic Materials](#), Il Nuovo Cimento B **34**, 76 (1976).

16. G. Badurek, H. Rauch, A. Zeilinger, W. Bauspiess, U. Bonse, [Phase Shift and Spin Rotation Phenomena in Neutron Interferometry](#), Phys. Rev. D **14**, 1177 (1976).
15. G. Badurek, H. Rauch, A. Zeilinger, W. Bauspiess, U. Bonse, [Measurements of Neutron Interference and Polarization Effects Caused by Nuclear and Magnetic Interaction](#), Phys. Lett. A **56**, 244-226 (1976).
14. A. Zeilinger, R. Huebner, [Untersuchung des Feuchtenttransports in einem Beton des SNR-300 durch Neutronentransmission](#), Kerntechnik **18**, 119 (1976).

1975

13. H. Rauch, A. Zeilinger, G. Badurek, A. Wilfing, W. Bauspiess, U. Bonse, [Verification of Coherent Spinor Rotation of Fermions](#), Phys. Lett. A **54**, 425-427 (1975).
12. A. Zeilinger, [Neutron Radiography as a Tool for the Detection and Measurement of Hydrogen Distributions](#), in “International Conference on Peaceful Uses of Atomic Energy for Scientific and Economic Development”, Iraqi Atomic Energy Organization, Baghdad, 310 (1975).
11. H. Böck, A. Zeilinger, [Radiographic Examination of Irradiated Incore Neutron Detectors](#), Nucl. Instr. Meth. **129**, 147 (1975).
10. A. Zeilinger, R. Huebner, [Measurement of Moisture Motion Under a Temperature Gradient in a Concrete for SNR-300 Using Thermal Neutrons](#), in “3rd International Conference on Structural Mechanics in Reactor Technology”, London, H 1/9 (1975).
9. M. Manoussakis, H. Rauch, A. Zeilinger, [Investigation of Hydrogen Motion in Liquids by Neutron Radiography](#), in “Radiography with Neutrons”, M.R. Hawkesworth (ed.), British Nuclear Energy Society, London, 143 (1975).

1974

8. A. Zeilinger, H. Rauch, [Measurement of Hydrogen Distributions by Neutron Radiography](#), in “3rd European Conference of Triga Reactor Users”, General Atomic GA-TOC-6, 4-25 (1974).
7. H. Rauch, A. Zeilinger, [Recent Neutron Physical Experiments at the Triga Mark II Reactor Vienna](#), 3rd European Conference of Triga Reactor Users, Neuherberg, General Atomic, GA-TOC-6, 9-11 (1974).
6. H. Böck, E. Seidl, A. Zeilinger, [Uranium Diffusion into Fission Chamber Electrodes](#), J. Nucl. Mat. **54**, 159 (1974).

5. A. Zeilinger, Zur Verwendung einkristalliner Fasern in Neutronenbeugungsexperimenten, Nucl. Instr. Meth. **120**, 525 (1974).
4. E. Seidl, A. Zeilinger, A Simple Device for Growing Single Crystals of Reactive Materials, J. Phys. E **7**, 1030 (1974).
3. A. Zeilinger, G. Reitsamer, Fokussierende Effekte in der Elektrophorese durch variable Potentialgradienten, J. Chromatogr. **93**, 41-46 (1974).

1972

2. H. Rauch, A. Zeilinger, Neutron Depolarization Measurements on a Dy Single Crystal, Atomkernenergie **19**, 167 (1972).

1971

1. H. Rauch, E. Seidl, A. Zeilinger, Neutron-Depolarisationsmessungen an Dy in der Umgebung des ferromagnetischen Umwandlungspunktes, Z. f. Angew. Phys. **32**, 109 (1971).