

# Scientific Publications

## Anton Zeilinger

2020

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548. M. Krenn, M. Erhard, A. Zeilinger, [Computer-inspired quantum experiments](#), Nat. Rev. Phys. **2**, 649-661 (2020).
547. J. Kysela, M. Erhard, A. Hochrainer, M. Krenn, A. Zeilinger, [Path Identity as a Source of High-Dimensional Entanglement](#), P. Natl. Acad. Sci. USA online, 202011405 (2020).
546. M. Erhard, M. Krenn, A. Zeilinger, [Advances in High Dimensional Quantum Entanglement](#), Nat. Rev. Phys. **2**, 365-381 (2020).
545. X. Gao, M. Erhard, A. Zeilinger, M. Krenn, [Computer-inspired concept for high-dimensional multipartite quantum gates](#), Phys. Rev. Lett. **125**, 050501 (2020).
544. 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. Månsson, 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).
543. 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. Zwiller, 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).
542. 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).
541. J. Fuenzalida, A. Hochrainer, G. Barreto Lemos, E. Ortega, R. Lapkiewicz, M. Lahiri, A. Zeilinger, [Resolution of Quantum Imaging with Undetected Photons](#), arXiv:2010.07712 [quant-ph] (2020).
540. M. Lahiri, R. Lapkiewicz, A. Hochrainer, G. Barreto Lemos, A. Zeilinger, [Characterizing mixed state entanglement through single-photon interference](#), arXiv:2009.02829 [quant-ph] (2020).
539. G. Barreto Lemos, R. Lapkiewicz, A. Hochrainer, M. Lahiri, A. Zeilinger, [Measuring mixed state entanglement through single-photon interference](#), arXiv:2009.02851 [quant-ph] (2020).

538. M. Krenn, M. Erhard, A. Zeilinger, [Computer-inspired Quantum Experiments](#), arXiv:2002.09970 [quant-ph] (2020).

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## 2019

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537. M. Lahiri, A. Hochrainer, R. Lapkiewicz, G. Barreto Lemos, A. Zeilinger, [Nonclassicality of induced coherence without induced emission](#), Phys. Rev. A **100**, 053839 (2019).
536. 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).
535. J. Kysela, M. Erhard, A. Hochrainer, M. Krenn, A. Zeilinger, [Experimental High-Dimensional Entanglement by Path Identity](#), arXiv:1904.07851 [quant-ph] (2019).
534. 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).
533. X. Gu, L. Chen, A. Zeilinger, M. Krenn, [Quantum experiments and graphs III. High-dimensional and multiparticle entanglement](#), Phys. Rev. A **99**, 032338 (2019).
532. X. Gu, M. Krenn, M. Erhard, A. Zeilinger, [Quantum Experiments and Graphs II: Computation and State Generation with Probabilistic Sources and Linear Optics](#), P. Natl. Acad. Sci. USA **116**, 4147-4155 (2019).
531. X. Gao, M. Krenn, J. Kysela, A. Zeilinger, [Arbitrary d-dimensional Pauli X gates of a flying qudit](#), Phys. Rev. A **99**, 023825 (2019).

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## 2018

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530. M. Erhard, M. Malik, M. Krenn, A. Zeilinger, [Experimental GHZ Entanglement beyond Qubits](#), Nat. Photon. **12**, 759-764 (2018).
529. 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).

528. 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. Mazzer, 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).
527. S. Koduru Joshi, J. Pienaar, T. C. Ralph, L. Cacciapuoti, W. McCutcheon, J. Rarity, D. Gigganbach, 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).
526. X. Gu, M. Krenn, M. Erhard, A. Zeilinger, [\*Gouy Phase Radial Mode Sorter for Light: Concepts and Experiments\*](#), *Phys. Rev. Lett.* **120**, 103601 (2018).
525. 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).
524. 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).
523. A. Zeilinger, [\*Quantum teleportation, onwards and upwards\*](#), *Nat. Phys.* **14**, 3 (2018).
522. R. Fickler, M. Krenn, A. Zeilinger, [\*Mit Lichtschrauben ans Quantenlimit\*](#), *Phys. Unserer Zeit* **49**, 12 (2018).

521. 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. 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).
520. M. Krenn, A. Zeilinger, [On Small Beams with Large Topological Charge II: Photons, Electrons and Gravitational Waves](#), New J. Phys. **20**, 063006 (2018).

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## 2017

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519. A. Zeilinger, [Light for the quantum. Entangled photons and their applications: a very personal perspective](#), Physica Scripta **92**, 072501 (2017). Most downloaded paper on the Physica Scripta website (March 2020).
518. 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.
517. 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).
516. 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).
515. 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 and A. Zeilinger (eds.): Springer, Cham, 503-518 (2017).
514. M. Lahiri, A. Hochrainer, R. Lapkiewicz, G. B. Lemos, A. Zeilinger, [Twin Photon Correlations in Single-Photon Interference](#), Phys. Rev. A **96**, 013822 (2017).
513. S. Alipour, M. Krenn, A. Zeilinger, [Quantum gate description for induced coherence without induced emission and related phenomena](#), Phys. Rev. A **96**, 042317 (2017).
512. A. Hochrainer, M. Lahiri, R. Lapkiewicz, G. B. Lemos, A. Zeilinger, [Interference Fringes Controlled by Non-Interfering Photons](#), Optica **4**, 341-344 (2017).

511. M. Krenn, A. Hochrainer, M. Lahiri, A. Zeilinger, [Entanglement by Path Identity](#), Phys. Rev. Lett. **118**, 080401 (2017); with [Erratum](#).
510. 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).
509. M. Lahiri, A. Hochrainer, R. Lapkiewicz, G. Barreto Lemos, A. Zeilinger, [Partial Polarization by Quantum Distinguishability](#), Phys. Rev. A **95**, 033816 (2017).
508. M. Erhard, M. Malik, A. Zeilinger, [A quantum router for high-dimensional entanglement](#), Quantum Sci. Technol. **2**, 014001 (2017). The paper was selected as one of ten highlights of the first year of the journal's publication.
507. 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).
506. M. Krenn, X. Gu, A. Zeilinger, [Quantum Experiments and Graphs: Multiparty States as coherent superpositions of Perfect Matchings](#), Phys. Rev. Lett. **119**, 240403 (2017).

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## 2016

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505. M. Krenn, M. Malik, T. Scheidl, R. Ursin, A. Zeilinger, [Quantum Communication with Photons](#), in: „Optics in Our Time“, Al-Amri et al. (eds.), Springer, Cham, 455-482 (2016).
504. 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).
503. 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).
502. N. Tischler, M. Krenn, R. Fickler, X. Vidal, A. Zeilinger, G. Molia-Terriza, [Quantum optical rotary dispersion](#), Sci. Adv. **2**, e1601306 (2016).
501. F. Schlederer, M. Krenn, R. Fickler, M. Malik, A. Zeilinger, [Cyclic transformation of orbital angular momentum modes](#), New J. Phys. **18**, 043019 (2016).
500. M. Malik, M. Erhard, M. Huber, M. Krenn, R. Fickler, A. Zeilinger, [Multi-photon entanglement in high dimensions](#), Nat. Photon. **10**, 248–252 (2016).
499. X.-S. Ma, J. Kofler, A. Zeilinger, [Delayed-choice gedanken experiments and their realizations](#), Rev. Mod. Phys. **88**, 015005 (2016).

498. M. Krenn, N. Tischler, A. Zeilinger, [On Small Beams with Large Topological Charge](#), New J. Phys. **18**, 033012 (2016).
497. 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.
496. 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).
495. M. Lahiri, C. Reimer, A. Zeilinger, [Quantum interference and imaging](#), in "Proc. of the International School of Physics "Enrico Fermi"", Course 190 of the series "Frontiers in Modern Optics", D. Faccio, J. Dudley and M. Clerici (Eds.): IOS, Amsterdam & SIF, Bologna, 159-170 (2016).
494. 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. Schiedmayer, 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).

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## 2015

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493. M. Giustina, M.A.M. Versteegh, S Wengerowsky, J. Handsteiner, A. Hochrainer, K. Phelan, F. Steinlechner, J. Kofler, J.-A. Larsson, C. Abellan, 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, [A 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".
492. 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).
491. 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).
490. M. Lahiri, R. Lapkiewicz, G. Barreto Lemos, A. Zeilinger, [Theory of Quantum Imaging with Undetected Photons](#), Phys. Rev. A **92**, 013832 (2015).
489. 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).

488. 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).
487. A. Zeilinger, [\*Preamble – Supervisor’s Foreword\*](#), in “Quantum Entanglement of Complex Structures of Photons” by Robert Fickler, pp 1-4. Springer Theses (recognizing Outstanding Ph.D. Research), [https://doi.org/10.1007/978-3-319-22231-8\\_1](https://doi.org/10.1007/978-3-319-22231-8_1). Springer, Cham (2015)

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## 2014

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486. A. Zeilinger, [\*Eugene Wigner – A Gedanken Pioneer of the Second Quantum Revolution\*](#), EPJ Web of Conferences **78**, 01010 (2014).
485. M. Keller, M. Kotyrba, F. Leupold, M. Singh, M. Ebner, A. Zeilinger, [\*A Bose-Einstein condensate of metastable helium for quantum correlation experiments\*](#), Phys. Rev. A **90**, 063607 (2014).
484. 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.
483. 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\*](#), Nature Communications **5**, 4502 (2014).
482. G. B. Lemos, V. Borish, G. D. Cole, S. Ramelow, R. Lapkiewicz, A. Zeilinger, [\*Quantum Imaging with Undetected Photons\*](#), Nature **512**, 409-412 (2014).
481. 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).
480. 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).
479. 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\*](#), Scientific Reports **4**, 3583 (2014).
478. 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).
477. R. Alléaume, C. Branciard, J. Bouda, T. Debuisschert, M. Dianati, N. Gisin, M. Godfrey, P. Grangier, T. Länger, N. Lütkenhaus, C. Monyk, P. Painchault, 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).
476. 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 Vol. 10563 105630V-1, doi: 10.1117/12.23040 (2014).
475. A. Zeilinger, [Introduction to the Proceedings of “Horizons of Quantum Physics” 2012](#), Found. Phys. **44**, 449–451 (2014).

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### 2013

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474. 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).
473. M. Schlosshauer, J. Kofler, A. Zeilinger, [The interpretation of quantum mechanics: from disagreement to consensus?](#), Ann. Phys. **525**, A51–A54 (2013).
472. 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).
471. 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.
470. R. Fickler, M. Krenn, R. Lapkiewicz, S. Ramelow, A. Zeilinger, [Real-Time Imaging of Quantum Entanglement](#), Scientific Reports **3**, 1914 (2013).
469. R. Lapkiewicz, P. Li, C. Schaeff, N. K. Langford, S. Ramelow, M. Wiesniak, A. Zeilinger, [Comment on “Two Fundamental Experimental Tests of Nonclassicality with Outrits”](#), arXiv:1305.5529 [quant-ph] (2013).



468. 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).
467. 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).
466. 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).
465. 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).
464. M. Schlosshauer, J. Kofler, A. Zeilinger, [A Snapshot of Foundational Attitudes Towards Quantum Mechanics](#), Stud. Hist. Phil. Mod. Phys. **44**, 222-230 (2013).

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## 2012

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463. 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.
462. 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.
461. 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).
460. 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 between two Canary Islands](#), 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.

459. 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).
458. J. -W. Pan, Z. -B. Chen, C. -Y. Lu, H. Weinfurter, A. Zeilinger, M. Zukowski, [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.
457. 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).
456. 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).
455. C. Schaeff, R. Polster, R. Lapkiewicz, R. Fickler, S. Ramelow, A. Zeilinger, [Scalable fiber integrated source for higher-dimensional path-entangled photonic qubits](#), Opt. Express **20**, 16145-16153 (2012).
454. X.-S. Ma, S. Zotter, J. Kofler, R. Ursin, T. Jennewein, C. Brukner, A. Zeilinger, [Experimental delayed-choice entanglement swapping](#), Nat. Phys. **8**, 480-485 (2012).
453. M. Aspelmeyer, Č. Brukner, A. Zeilinger, [Festschrift Dedicated to Daniel Greenberger and Helmut Rauch – Editorial](#), Found. Phys. **42**, 1-3 (2012).
452. S. Ramelow, A. Fedrizzi, A. Poppe, N. K. Langford, A. Zeilinger, [Polarization-entanglement-conserving frequency conversion of photons](#), Phys. Rev. A **85**, 013845 (2012).
451. S. Barz, E. Kashefi, A. Broadbent, J. Fitzsimons, A. Zeilinger, P. Walther, [Demonstration of Blind Quantum Computing](#), Science **335**, 303-307 (2012).

---

## 2011

450. 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).
449. T. Fujii, S. Matsuo, N. Hatakenaka, S. Kurihara, A. Zeilinger, [Quantum circuit analog of the dynamical Casimir effect](#), Phys. Rev. B **84**, 174521 (2011).
448. 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).

447. 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.
446. 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).
445. X.-S. Ma, B. Dakic, W. Naylor, A. Zeilinger, P. Walther, [\*Quantum simulation of the wavefunction to probe frustrated Heisenberg spin systems\*](#), *Nat. Phys.* **7**, 399-405 (2011).
444. M. Wiesniak, T. Paterek, A. Zeilinger, [\*Entanglement in mutually unbiased bases\*](#), *New J. Phys.* **13**, 053047 (2011).
443. 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).
442. 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, doi: 10.1117/12.894991 (2011).

---

## 2010

441. A. Zeilinger, M. Aspelmeyer, [\*Une incroyable illusion de réalité\*](#), *La Recherche* **38** (2010).
440. J. Kofler, A. Zeilinger, [\*Quantum Information and Randomness\*](#), *Eur. Rev.* **18**, 469-480 (2010).
439. 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).
438. S. Barz, G. Cronenberg, A. Zeilinger, P. Walther, [\*Heralded generation of entangled photon pairs\*](#), *Nat. Photon.* **4**, 553-556 (2010).

437. 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 select. Highlight in Europhys. News 41/2, 10 (2010).

---

## 2009

---

436. S. Ramelow, L. Ratschbacher, A. Fedrizzi, N. K. Langford, A. Zeilinger, [Discrete, Tunable Color Entanglement](#), Phys. Rev. Lett. **103**, 25360 (2009).
435. M. Hentschel, H. Hübel, A. Poppe, A. Zeilinger, [Three-color Sagnac source of polarization-entangled photon pairs](#), Opt. Express **17**, 23153-23159 (2009).
434. M. Peev, C. Pacher, T. Lorünser, M. Noelle, A. Poppe, A. Zeilinger, [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).
433. 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).
432. M. Arndt, M. Aspelmeyer, A. Zeilinger, [How to extend quantum experiments](#), Fortschritte Phys. 1-10 (2009).
431. 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).
430. 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).
429. C. Brukner, A. Zeilinger, [Information Invariance and Quantum Probabilities](#), Foundations of Physics **39**, 677-689 (2009).
428. 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-Brouri, 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).

427. A. Treiber, A. Poppe, M. Hentsche, T. Lorünser, H. Hübel, A. Zeilinger, [Reliable hands-off entanglement-based QKD system for fiber networks](#), in: Proc. CLEO/Europe - EQEC 2009 - European Conference on Lasers and Electro-Optics and the European Quantum Electronics Conference, Munich, 2009, doi: 10.1109/CLEOE-EQEC.2009.5194792 (2009).
426. 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)
425. A. Fedrizzi, R. Ursin, A. Zeilinger, [Transmission of Entangled Photons over a High-Loss Free-Space Channel](#), www.2Physics.com (May 30, 2009).
424. A. Fedrizzi, R. Ursin, T. Herbst, M. Nespola, 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).
423. A. Fedrizzi, T. Herbst, M. Aspelmeyer, M. Barbieri, T. Jennewein, A. Zeilinger, [Anti-symmetrization reveals hidden entanglement](#), New J. Phys. **11**, 103052 (2009).
422. 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).
421. 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).
420. P. Villoresi, R. Ursin, A. Zeilinger, [Single photons from a satellite: quantum communication in space](#), SPIE Newsroom (2009), DOI: 10.1117/2.1200902.1398.
419. R. Kaltenbaek, R. Prevedel, M. Aspelmeyer, A. Zeilinger, [High-fidelity entanglement swapping with fully independent sources](#), Phys. Rev. A **79**, 040302(R) (2009).
418. A. Zeilinger, [Photonic Entanglement in Quantum Communication and Quantum Computation](#), in: "Proceedings of the 9th International Symposium on Foundations of Quantum Mechanics in the Light of New Technology (ISQM-Tokyo '08)", S. Ichioka, K. Fujikawa (Eds.), World Scientific (2009).

---

## 2008

417. J. Kofler, R. Ursin, C. Brukner, A. Zeilinger, [Comment on: Testing the speed of 'spooky action at a distance'](#), arXiv:0810.4452 [quant-ph] (2008).

416. 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).
415. A. Zeilinger, [On the Interpretation and Philosophical Foundation of Quantum Mechanics](#), in “Grenzen menschlicher Existenz. Klimawandel Menschenwürde Unschärferelation.”, H. Daub (Ed.), 184-201, Michael Imhof Verlag (2008).
414. A. Zeilinger, [Die Wirklichkeit der Quanten](#), Spektrum der Wissenschaft (November 2008), 54-63.
413. M. Aspelmeyer, A. Zeilinger, [A quantum renaissance](#), Physics World, July 2008, 22 (2008).
412. 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 Astronautica **63**, 165 – 178 (2008).
411. 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.), 299-300 (Optical Society of America, Washington, DC, 2008).
410. 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?](#), World Scientific, Fluctuation and Noise Letters **8**, C5-C26 (2008).
409. A. Zeilinger, [Die Wissenschaftsstadt Wien aus der Sicht eines Zurückgekehrten](#), in „Wissenschaftsbericht der Stadt Wien 2007“, City of Vienna (2008).
408. 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.
407. R. Ursin, T. Jennewein, J. Kofler, J. M. Perdignes, L. Cacciapuoti, C. d. Matos, M. Aspelmeyer, A. Valencia, T. Scheidl, A. Acin, C. Barbieri, G. Bianco, S. Cova, D. Gigenbach, 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. Zukowski, A. Zeilinger, [Space-QUEST. Experiments with quantum entanglement in space](#), Proceedings of the 2008 Microgravity Sciences and Process Symposium, [arXiv:0806.0945 \[quant-ph\]](#) (2008). Europhysics News Vol. 40, No. 3, 2009, pp. 26-29, DOI: 10.1051/eprn/2009503.

406. A. Zeilinger, [Split world \(Book Review of 'Decoherence and the Quantum-to-Classical Transition' by Maximilian Schlosshauer\)](#), Nature **451**, 18 (2008).

---

## 2007

---

405. R. Prevedel, A. Zeilinger, [Entanglement and One-Way Quantum Computing](#), [www.2physics.com](http://www.2physics.com) (2007).
404. B. Sanders, Y. Yamamoto, A. Zeilinger, [Optical Quantum Information Science. Introduction](#), J. Opt. Soc. Am. B **24**, 162-162 (2007).
403. P. Walther, M. D. Eisaman, A. Nemiroski, A. V. Gorshkov, A. S. Zibrov, A. Zeilinger, M. D. Lukin, [Multi-photon entanglement: From quantum curiosity to quantum computing and quantum repeaters](#), Proc. of SPIE, Vol. 6664 (2007).
402. A. Zeilinger, [Von Einstein zum Quantencomputer. Wirklichkeit und Information in der Quantenwelt](#), in: „Vom Urknall zum Bewusstsein - Selbstorganisation der Materie“, Editors: K. Sandhoff, W. Donner et al. , Verhandlungen der Gesellschaft Deutscher Naturforscher und Ärzte, No. 124, 33-35 (Thieme, Stuttgart, 2007).
401. A. Zeilinger, [Quantum teleportation](#), McGraw-Hill Encyclopedia of Science & Technology, vol. 14, pp. 705-706, 10th edition, McGraw-Hill (2007).
400. A. Zeilinger, [Foreword](#) to: “Christian Doppler. Life and Work - Principle and Applications”, Editors: E. Hiebl, M. Musso, p 9 (Living Edition, Pöllauberg, 2007).
399. R. Prevedel, M. S Tame, A. Stefanov, M. Paternostro, M. S. Kim, A. Zeilinger, [Experimental demonstration of decoherence-free one-way quantum processing](#), Phys. Rev. Lett. **99**, 250503 (2007).
398. A. Zeilinger, [Der Zufall als Notwendigkeit für eine offene Welt](#), in: "Der Zufall als Notwendigkeit", by: Anton Zeilinger, Helmut Leder, Elisabeth Lichtenberger, Jürgen Mittelstraß and others, Beiträge aus unterschiedlichen Disziplinen über Einfluss und Wirkung des Zufalls, No. 132, 19-24 (Picus, Vienna, June 2007).
397. A. Zeilinger, [Long-Distance Quantum Cryptography with Entangled Photons](#), in: “Quantum Communications Realized”, Editors: Yasuhiko Arakawa, Masahide Sasaki, Hideyuki Sotobayashi, Proceedings of SPIE **6780**, 67800B (2007).
396. J. M. Perdignes 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](#), Proceedings of the 58th International

- Astronautical Congress , Hyderabad, India, 24 - 28 September 2007, IAF/IAA (2007).
395. 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).
  394. T. Paterek, A. Fedrizzi, S. Gröblacher, T. Jennewein, M. Zukowski, M. Aspelmeyer, A. Zeilinger, [Experimental test of non-local realistic theories without the rotational symmetry assumption](#), Phys. Rev. Lett. **99**, 210406 (2007).
  393. 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).
  392. 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).
  391. 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).
  390. 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).
  389. 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.
  388. 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](#), Proc. 33rd European Conference and Exhibition of Optical Communication, Berlin, Germany, 2007, doi: 10.1049/ic:20070343 (2007).
  387. S. Gröblacher, T. Paterek, R. Kaltenbaek, C. Brukner, M. Zukowski, M. Aspelmeyer, A. Zeilinger, [An experimental test of non-local realism](#), Nature **446**, 871-875 (2007).
  386. 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.
385. P. Walther, M. Aspelmeyer, A. Zeilinger, [Heralded generation of multi-photon entanglement](#), Phys. Rev. A **75**, 12313 (2007).
384. 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 (Issue 2, Vol. 7, Feb 2007)]
383. 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.
382. 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.
381. 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

380. 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.
379. 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).
378. A. Zeilinger, J. Kofler, [La dissolution du paradoxe](#), Sciences et Avenir Hors-Série, No. 148, p. 54 (Oct. /Nov. 2006).

377. H. R. Böhm, S. Gigan, G. Langer, J. Hertzberg, F. Blaser, D. Bäuerle, K. Schwab, A. Zeilinger, M. Aspelmeyer, [A high reflectivity high-Q micromechanical Bragg mirror](#), Applied Physics Letters **89**, 223101 (2006).
376. 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)
375. A. Zeilinger, [Quantum Communication and Quantum Computation with Entangled Photons](#), in: “Foundations of Quantum Mechanics in the Light of New Technology: ISQM Tokyo ‘05, Proceedings of the 8th International Symposium, Hatoyama, Saitama, Editor(s): Ishioka S. , Fujikawa K. , World Scientific Publishing Co. Pte. Ltd., 24-28 (2006)
374. R. Kaltenbaek, B. Blauensteiner, M. Zukowski, M. Aspelmeyer, A. Zeilinger, [Experimental interference of independent photons](#), Phys. Rev. Lett. **96**, 240502 (2006).
373. P. Walther, K. J. Resch, Č. Brukner, A. Zeilinger, [Experimental Entangled Entanglement](#), Phys. Rev. Lett. **97**, 020501 (2006)
372. 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”, Editor(s): Alexander V. Sergienko, Taylor and Francis Group, LLC, 45-81 (2006)
371. A. Zeilinger, [Essential quantum entanglement](#), in: “The New Physics”, edited by Gordon Fraser, pp 257-267, <https://doi.org/10.1017/CBO9781139644228.014> (Cambridge University Press, 2006)
370. S. Gröblacher, T. Jennewein, A. Vaziri, G. Weihs, A. Zeilinger, [Experimental Quantum Cryptography with Qutrits](#), New J. Phys. **8** (2006)
369. Č. Brukner, V. Vedral, A. Zeilinger, [Crucial Role of Quantum Entanglement in Bulk Properties of Solids](#), Phys. Rev. A **73**, 012110 (2006)
368. K. Sanaka, K. J. Resch, A. Zeilinger, [Filtering Out Photonic Fock States](#), Phys. Rev. Lett. **96**, 083601-1-4 (2006)
367. A. Poppe, H. Hübel, T. Lederer, A. Fedrizzi, M. R. Vanner, A. Zeilinger, [Detection of Polarization Entanglement after 75 km of Fiber Transmission](#), Proc. 2006 European Conference on Optical Communications, Cannes, France, doi: 10.1109/ECOC.2006.4801095 (2006).

---

**2005**


---

366. Č. Brukner & A. Zeilinger, [Quantum Physics as a Science of Information](#), in: “Quo Vadis Quantum Mechanics?”, edited by A. Elitzur, S. Dolev, N. Kolenda, (Springer, 2005).
365. A. Zeilinger, [Verschränkung - ein Quantenrätsel für jedermann](#), in: „Aus den Elfenbeintürmen der Wissenschaft. 1. XLAB Science Festival. “ Wallstein Verlag, Göttingen (2005).
364. A. Stibor, K. Hornberger, L. Hackermüller, A. Zeilinger, M. Arndt, [Talbot-Lau interferometry with fullerenes: Sensitivity to inertial forces and vibrational dephasing](#), Laser Physics **15**, 10-17 (2005).
363. Č. Brukner, M. Aspelmeyer, A. Zeilinger, [Complementarity and Information in "Delayed-Choice for Entanglement Swapping"](#), Found. Phys. **37**, 1909 (2005).
362. P. Walther, A. Zeilinger, [Experimental realization of a photonic Bell-state analyzer](#), Phys. Rev. A **72**, 010302(R) (2005).
361. M. Pfennigbauer, M. Aspelmeyer, W. R. Leeb, G. Badurek, G. Baister, T. Dreischer, T. Jennewein, G. Baister, G. Neckamm, J. M. Perdignes, J. Summhammer, H. Weinfurter, A. Zeilinger, [Satellite-based quantum communication terminal employing state-of-the-art technology](#), Jour. Opt. Netw. **4**, 549-560 (2005).
360. M. Aspelmeyer, T. Jennewein, G. Weihs, A. Zeilinger, [Physik der Photonen](#), Spektrum der Wissenschaft Spezial – Sterne und Weltraum **1** (2005).
359. P. Walther, A. Zeilinger, [Quantum Logics Based on Four-Photon Entanglement](#), in: “Decoherence, Entanglement and Information Protection in Complex Quantum Systems”, Springer, 49-62 (2005).
358. P. Walther, M. Aspelmeyer, K. J. Resch, A. Zeilinger, [Experimental violation of a cluster state Bell inequality](#), Phys. Rev. Lett. **95**, 020403 (2005).
357. P. Walther, K. J. Resch, A. Zeilinger, [Local conversion of Greenberger-Horne-Zeilinger states to approximate W states](#), Phys. Rev. Lett. **94**, 240501 (2005).
356. M. Arndt, L. Hackermüller, K. Hornberger, A. Zeilinger, [Coherence and Decoherence Experiments with Fullerenes](#), in: “Decoherence, Entanglement and Information Protection in Complex Quantum Systems”, Springer, 2005.
355. 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).

354. K. Resch, P. Walther, A. Zeilinger, [Full characterization of a three-photon GHZ state using quantum state tomography](#), Phys. Rev. Lett. **94**, 070402 (2005).
353. 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).
352. 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).
351. M. Arndt, K. Hornberger, A. Zeilinger, [Probing the limits of the quantum world](#), Physics World, March 2005, 35 (2005).
350. G. Molina-Terriza, A. Vaziri, R. Ursin, A. Zeilinger, [Experimental Quantum Coin Tossing](#), Phys. Rev. Lett. **94**, 40501 (2004).
349. 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).
348. 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).
347. P. Zoller, Th. 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. Wendin, 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).
346. A. Zeilinger, [Time Travel](#), "New Scientist's Book of 100 Things to Do Before You Die", Profile Books, London (2005).
345. A. Zeilinger, G. Weihs, T. Jennewein, M. Aspelmeyer, [Happy Centenary. Photon](#), Nature **433**, 230-238 (2005).

---

## 2004

344. P. Villoresi, F. Tamburini, M. Aspelmeyer, R. Ursin, C. Pacheo, G. Bianco, C. Barbieri, T. Jennewein, A. Zeilinger, [Space-to-ground quantum-communication using an optical ground station: a feasibility study](#), Proc. of

- SPIE Vol. **5551**, 113-120 (2004), Quantum Communications and Quantum Imaging II, R. Meyers, Y. Shih (Eds.).
343. Hannes R. Böhm, Paul S. Böhm, Markus Aspelmeyer, Caslav Brukner, Anton Zeilinger, [Exploiting the randomness of the measurement basis in quantum cryptography: Secure Quantum Key Growing without Privacy Amplification](#), arXiv: quant-ph/0408179 (2004).
342. M. Aspelmeyer, P. Walther, T. Jennewein, A. Zeilinger, [Nonlocal photon number states for quantum metrology](#), Proc. of SPIE Vol. **5551**, 15-20 (2004), Quantum Communications and Quantum Imaging II, R. Meyers, Y. Shih (Eds.).
341. T. Jennewein, A. Zeilinger, [Quantum Noise and Quantum Communication](#), Fluctuations and Noise in Photonics and Quantum Optics II, Peter Heszler, Derek Abbot, Julio R. Gea-Banacloche, Philip R. Hemmer (Eds.), Proceedings of SPIE **5468** (SPIE, Bellingham, WA, 2004), 1-9 (2004).
340. A. Zeilinger und A. Zeilinger, [Gesetze der Natur - Natur der Gesetze](#), Studien zur Politik und Verwaltung, Christian Brünner, Wolfgang Mantl, Manfred Welan (Eds.), Band 90/I, Böhlau Verlag Wien 1217-1222, (2004).
339. M. Arndt, L. Hackermüller, K. Hornberger, A. Zeilinger, [Organic molecules and decoherence experiments in a molecule interferometer](#), Proceedings of the Workshop on „Multiscale Methods in Quantum Mechanics“, Birkhäuser, Boston (2004).
338. 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).
337. M. Aspelmeyer, Č. Brukner, A. Zeilinger, [Entangled photons and quantum communication](#), D. Estève, J. -M. Raimond, J. Dalibard, eds, Proceedings of the Les Houches Summer School 2003 (Les Houches, Volume Session LX), D. Estève, J. -M- Raimond, J. Dalibard (Eds.), Elsevier Science, 335-353, (2004).
336. R. Ursin, T. Jennewein, M. Aspelmeyer, R. Kaltenbaek, M. Lindenthal, P. Walther, A. Zeilinger, [Quantum teleportation across the Danube](#), Nature **430**, 849 (2004).
335. 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).
334. A. Poppe, A. Fedrizzi, R. Ursin, H. R. Böhm, T. Lörünser, 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).

333. G. Molina-Terriza, A. Vaziri, J. Rehacek, Z. Hradil, A. Zeilinger, [\*Triggered Outlets for Quantum Communication Protocols\*](#), Phys. Rev. Lett. **92**, 168903 (2004).
332. Č. Brukner, M. Zukowski, J. -W. Pan, A. Zeilinger, [\*Bell's Inequalities and Quantum Communication Complexity\*](#), Phys. Rev. Lett. **92**, 127901 (2004).
331. 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).
330. L. Hackermüller, K. Hornberger, B. Brezger, A. Zeilinger, M. Arndt, [\*Decoherence of matter waves by thermal emission of radiation\*](#), Nature **427**, 711-714 (2004).

---

### 2003

---

329. R. D. Gill, G. Weihs, A. Zeilinger, M. Zukowski, [\*Comment on "Exclusion of time in the theorem of Bell" by K. Hess and W. Philipp\*](#), Europhys. Lett. **61**, 282-283 (2003).
328. B. Brezger, M. Arndt, A. Zeilinger, [\*Concepts for near-field interferometers with large molecules\*](#), Journal of Optics B: Quantum and Semiclassical Optics **5**, 82-89 (2003).
327. T. Jennewein, G. Weihs, J. -W. Pan, A. Zeilinger, [\*Reply to Ryff's Comment on "Experimental Nonlocality Proof of Quantum Teleportation and Entanglement Swapping"\*](#), quant-ph/0303104 (2003).
326. A. Zeilinger, [\*Quantum Teleportation\*](#) (updated version of the 2001 contribution), Scientific American Collection The Edge of Physics (2003).
325. M. Arndt, A. Zeilinger, [\*Wave-particle experiments with large molecules\*](#), J. S. Al-Khalili, "Quantum: A guide for the perplexed", Weidenfeld & Nicolson, (2003).
324. M. Pfennigbauer, W. Leeb, M. Aspelmeyer, T. Jennewein, A. Zeilinger, [\*Free-Space Optical Quantum Key Distribution Using Intersatellite Links\*](#), Proceedings of the CNES - Intersatellite Link Workshop (2003).
323. M. Aspelmeyer, T. Jennewein, M. Pfennigbauer, W. Leeb, A. Zeilinger, [\*Long-Distance Quantum Communication with Entangled Photons using Satellites\*](#), IEEE Journal of Selected Topics in Quantum Electronics, special issue on "Quantum Internet Technologies" (2003).
322. R. Kaltenbaek, M. Aspelmeyer, T. Jennewein, Č. Brukner, M. Pfennigbauer, W. R. Leeb, A. Zeilinger, [\*Proof-of-Concept Experiments for Quantum Physics in Space\*](#), Proceedings of SPIE, Quantum Communications and Quantum Imaging, R. Meyers, Y. Shih (Eds.), 252-268 (2003).

321. 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).
320. 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).
319. O. Nairz, M. Arndt, A. Zeilinger, [Quantum Interference Experiments with Large Molecules](#), American Journal of Physics **71**, 319 (2003).
318. L. Hackermüller, St. Uttenthaler, K. Hornberger, E. Reiger, B. Brezger, A. Zeilinger, M. Arndt, [Wave Nature of Biomolecules and Fluorofullerenes](#), Phys. Rev. Lett. **91**, 090408 (2003).
317. T. Jennewein, G. Weihs, A. Zeilinger, [Photon Statistics and Quantum Teleportation Experiments](#), Proc. Waseda Int. Sympo. On Fundamental Physics - New Perspectives in Quantum Physics - J. Phys. Soc. Jpn. **72**, 168-173 (2003).
316. 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).
315. 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).
314. 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).
313. 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).
312. A. Vaziri, J. -W. Pan, G. Weihs, A. Zeilinger, [Concentration of higher dimensional entanglement: Outrits of Photon Orbital Angular Momentum](#), Phys. Rev. Lett. **91**, 227902 (2003).
311. Č. Brukner, J. -W. Pan, Ch. Simon, G. Weihs, A. Zeilinger, [Probabilistic instantaneous quantum computation](#), Phys. Rev. A **67**, 034304 (2003).
310. J. -W. Pan, S. Gasparoni, R. Ursin, G. Weihs, A. Zeilinger, [Experimental entanglement purification of arbitrary unknown states](#), Nature **423**, 417-422 (2003).
309. J. -W. Pan, S. Gasparoni, M. Aspelmeyer, T. Jennewein, A. Zeilinger, [Experimental realization of freely propagating teleported qubits](#), Nature **421**, 721-725 (2003).

308. 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).
307. Č. Brukner, A. Zeilinger, [\*Information and fundamental elements of the structure of quantum theory\*](#), in “Time, Quantum, Information”, L. Castell, O. Ischebeck (Eds.), Springer (2003).
306. 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”, I. Antoniou, V.A. Sadovnichy and H. Walther (eds), World Scientific, 452-461 (2003).

---

## 2002

305. 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).
304. Č. Brukner, M. Zukowski, A. Zeilinger, [\*Quantum communication complexity protocol with two entangled qutrits\*](#), Phys. Rev. Lett. **89**, 197901 (2002).
303. A. Zeilinger, [\*Bell's Theorem, Information and Quantum Physics\*](#), Quantum [Un]Speakables. From Bell's Theorem to Quantum Information, R. Bertlmann, A. Zeilinger (Eds.), Springer, 241-254 (2002).
302. J.-W. Pan, A. Zeilinger, [\*Multi-Photon Entanglement and Quantum Non-Locality\*](#), Quantum [Un]Speakables. From Bell's Theorem to Quantum Information, R. Bertlmann, A. Zeilinger (Eds.), Springer, 225-240 (2002).
301. R. D. Gill, G. Weihs, A. Zeilinger, M. Zukowski, [\*No time loophole in Bell's theorem: The Hess-Philipp model is nonlocal\*](#), P. Natl. Acad. Sci. USA **99**, 14632-14635 (2002).
300. Č. Brukner, A. Zeilinger, [\*Young's experiment and the finiteness of information\*](#), Phil. Trans. R. Soc. Lond. A **360**, 1061-1069 (2002).
299. A. Vaziri, G. Weihs, A. Zeilinger, [\*Experimental Two-Photon Three-Dimensional Quantum Entanglement for Quantum Communication\*](#), Phys. Rev. Lett. **89**, 240401-1 (2002).
298. A. Vaziri, G. Weihs, A. Zeilinger, [\*Superposition of the Orbital Angular Momentum for Applications in Quantum Experiments\*](#), J. Opt. B: Quantum Semiclass **4**, 47-51 (2002).



297. T. Jennewein, G. Weihs, J. -W. Pan, A. Zeilinger, [\*Experimental Nonlocality Proof of Quantum Teleportation and Entanglement Swapping\*](#), Phys. Rev. Lett. **88**, 17903 (2002).
296. J. Lawrence, Č. Brukner, A. Zeilinger, [\*Mutually unbiased binary observable sets on  \$N\$  qubits\*](#), Phys. Rev. A **65**, 32320 (2002).
295. B. Brezger, L. Hackermüller, St. Uttenthaler, J. Petschinka, M. Arndt, A. Zeilinger, [\*Matter-Wave Interferometer for Large Molecules\*](#), Phys. Rev. Lett. **88**, 100404 (2002).
294. M. Arndt, O. Nairz, A. Zeilinger, *Wave-Particle Duality*, in: “Year Book of Science & Technology”, McGraw-Hill **88** (2002).
293. 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 (2002).
292. 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 (2002).
291. O. Nairz, M. Arndt, A. Zeilinger, [\*Experimental verification of the Heisenberg uncertainty principle for fullerene molecules\*](#), Phys. Rev. A **65**, 32109 (2002).

---

## 2001

290. G. Weihs, A. Zeilinger, [\*Photon statistics at beam-splitters: an essential tool in quantum information and teleportation\*](#), "Coherence and Statistics of Photons and Atoms", J. Perina (Ed.), Wiley, (2001).
289. Č. Brukner, M. Zukowski, A. Zeilinger, [\*The essence of entanglement\*](#), arXiv:quant-ph/0106119 (2001). Translated into Chinese by Qiang Zhang and Yong-de Zhang, New Advances in Physics (Journal of the Chinese Physical Society).
288. A. Mair, A. Vaziri, G. Weihs, A. Zeilinger, [\*Entanglement of the Orbital Angular Momentum States of Photons\*](#), Nature **412**, 313-316 (2001).
287. O. Nairz, B. Brezger, M. Arndt, A. Zeilinger, [\*Diffraction of Complex Molecules by Structures Made of Light\*](#), Phys. Rev. Lett **87**, 160401 (2001).
286. T. Jennewein, G. Weihs, A. Zeilinger, [\*Schrödingers Geheimnisse – absolut sichere Kommunikation durch Quantenkryptographie\*](#), Heise, ct magazin für computer technik **6**, 260-268. (2001).

285. C. Simon, Č. Brukner, A. Zeilinger, [\*Hidden-variable theorems for real experiments\*](#), Phys. Rev. Lett. **86**, 4427 (2001).
284. 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).
283. O. Nairz, A. Zeilinger, *Matter-wave interference of Fullerenes*, SPIE's International Technical Group Newsletter, Special Issue: Hidden Holography **12**, 5 (2001).
282. J. W. Pan, C. Simon, Č. Brukner, A. Zeilinger, [\*Entanglement Purification for Quantum Communication\*](#), Nature **410**, 1067-1070 (2001).
281. 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).
280. 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).
279. Č. Brukner, A. Zeilinger, [\*Conceptual Inadequacy of the Shannon Information in Quantum Measurements\*](#), Phys. Rev. A **63**, 022113 1-10 (2001) (2003 Erratum).

---

## 2000

278. T. Jennewein, C. Simon, G. Weihs, H. Weinfurter, A. Zeilinger, [\*Quantum Cryptography with Entangled Photons\*](#), Phys. Rev. Lett. **84**, 4729-4732 (2000).
277. A. Zeilinger, [\*The Quantum Centennial\*](#), Nature **408**, 639-641 (2000).
276. D. Kaszlikowski, P. Gnaniński, M. Zukowski, 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).
275. 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\*](#), IQEC 2000, Conference Digest, Nice, 115 (2000).
274. C. Simon, M. Zukowski, H. Weinfurter, A. Zeilinger, [\*A feasible "Kochen-Specker" experiment with single particles\*](#), Phys. Rev. Lett. **85**, 1783-6 (2000).
273. A. Zeilinger, [\*Quantum Entangled Bits Step Closer to Information Technology\*](#), Science **289**, 405-406 (2000).
272. 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).

271. A. Zeilinger, [Quanten-Teleportation](#), Spektrum der Wissenschaft, 30-40 (2000).
270. A. Zeilinger, *Quantenexperimente zwischen Photon und Fulleren*, Physik in unserer Zeit **5**, 199-202 (2000).
269. O. Nairz, M. Arndt, A. Zeilinger, *Experimental Challenges in Fullerene Interferometry*, J. Mod. Opt. **47**, 2811-2821 (2000).
268. 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).
267. A. Zeilinger, *Quantum Teleportation*, Scientific American, 32-41. (2000).
266. 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).
265. 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).
264. J. W. Pan, D. Bouwmeester, M. Daniell, H. Weinfurter, A. Zeilinger, [Three-photon GHZ entanglement and quantum information](#), Proc. 15th European Meetings on Cybernetics and Systems Research in Vienna, Austria, Carvallo et al. (Eds.) 2, 247 (2000).
263. M. Arndt, O. Nairz, J. Voss-Andreae, C. Keller, G. Van-der Zouw, J. W. Pan, M. Daniell, A. Zeilinger, *Superposition and entanglement: experimental frontiers of quantum mechanics*, Fundamentals of Quantum Optics V Innsbruck (Austria), Springer Verlag, F. Ehlotzky (ed. ), 50 (2000).
262. M. Daniell, J. W. Pan, A. Zeilinger, *The GHZ-experiment*, Fundamentals of Quantum Optics V Innsbruck (Austria), Springer Verlag, F. Ehlotzky (ed. ), 89 (2000).
261. M. Daniell, J. W. Pan, G. Weihs, A. Zeilinger, *High Fidelity Entanglement Swapping*, Conference Digest, CLEO'2000, Nice, 7 (2000).
260. H. Weinfurter, D. Bouwmeester, T. Jennewein, J. -W. Pan, G. Weihs, A. Zeilinger, [Quantum Communication and Entanglement](#), Proc. 2000 IEEE International Symposium on Circuits and Systems, Ed. by Hasler et al., 346 (2000).
259. O. Nairz, M. Arndt, J. Voss-Andreae, C. Keller, G. Van-der-Zouw, A. Zeilinger, *Coherence in C60 and C70 interference*, Fundamentals of Quantum Optics V Innsbruck (Austria), F. Ehlotzky (Ed.) 104-109 (2000).
258. Č. Brukner, A. Zeilinger, *Encoding and Decoding in Complementary Bases with Quantum Gates*, J. Mod. Opt. **47**, 2233-2246 (2000).

257. S. Bernet, R. Abfalterer, 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).
256. C. Keller, J. Schiedmayer, A. Zeilinger, *Requirements for coherent atom channeling*, Optics Communications **179**, 129-135 (2000).
255. D. Greenberger, M. Horne, A. Zeilinger, [\*Similarities and Differences Between Two-Particle and Three-Particle Interference\*](#), Fortschr. Phys. **48**, 243-252 (2000).
254. C. Simon, G. Weihs, A. Zeilinger, [\*Optimal Quantum Cloning via Stimulated Emission\*](#), Phys. Rev. Letters **84**, 2993-2996. (2000).
253. T. Jennewein, C. Simon, G. Weihs, H. Weinfurter, A. Zeilinger, [\*Quantum Cryptography with Entangled Photons\*](#), Phys. Rev. Lett. **84**, 4729-4732 (2000).
252. 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*, Nuclear Instruments and Methods in Physics Research A **440**, 568-574. (2000).
251. M. Arndt, A. Zeilinger, [\*Wo ist die Grenze der Quantenwelt?\*](#), Physikalische Blätter **56**, 69-72 (2000).
250. D. Bouwmeester, J. -W. Pan, H. Weinfurter, A. Zeilinger, [\*High Fidelity Teleportation of Independent Qubits\*](#), J. Mod. Opt. **47**, 279-289. (2000).
249. C. Simon, G. Weihs, A. Zeilinger, *Optimal quantum cloning and universal NOT without quantum gates*, J. Mod. Opt. **47**, 233-246 (2000).

---

## 1999

248. D. Bouwmeester, J. -W. Pan, H. Weinfurter, A. Zeilinger, *Experimental Quantum Teleportation of Qubits and Entanglement Swapping*, Epistemological and Experimental Perspectives on Quantum Physics, Greenberger et al. (eds), Kluwer Academic, Netherlands, 127-140 (1999).
247. 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).
246. Č. Brukner, A. Zeilinger, *Information Content of an Elementary System and the Foundations of Quantum Physics*, World Scientific, Proceedings of the 14th International Conference on Laser Spectroscopy, Innsbruck, Austria, June 1999, (1999).
245. A. Zeilinger, [\*In retrospect: chosen by Anton Zeilinger. Albert Einstein: Philosopher Scientist\*](#), Nature **398**, 210-211 (1999).

244. P. Zarda, S. Chingga, T. Jennewein, H. Weinfurter, *Quantum mechanics and Secret Communications*, Epistemological and Experimental Perspectives of Quantum Physics. Kluwer Academic, Netherlands, 271-273 (1999).
243. S. Chiangga, P. Zarda, T. Jennewein, H. Weinfurter, *Towards practical quantum cryptography*, Appl. Phys. B **69**, 389-393 (1999).
242. A. Mair, A. Zeilinger, *Entangled States of Orbital Angular Momentum of Photons*, Epistemological and Experimental Perspectives on Quantum Physics, Greenberger et al. (eds), Kluwer Academic, Netherlands, 249-252 (1999).
241. G. van der Zouw, A. Zeilinger, P. Hoghhoj, R. Gähler, P. Geltenbort, J. Butterworth, *Testing the Proportionality of the Neutron's Gravitational and Inertial Mass*, ILL Annual Report 1999, 62-63 (1999).
240. A. Zeilinger, [\*Three- and Four-Photon Correlations and Entanglement: Quantum Teleportation and Beyond\*](#), Quantum Coherence and Decoherence, Y. A. Ono, K. Fujikawa (editors), (ISQM Tokyo) Elsevier Science, 19-26 (1999).
239. 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).
238. 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).
237. M. Zukowski, A. Zeilinger, M. A. Horne, H. Weinfurter, *Independent Photons and Entanglement. A Short Overview*, Int. J. Theor. Phys. **38**, 501-517 (1999).
236. M. Daniell, D. Bouwmeester, J. -W. Pan, H. Weinfurter, A. Zeilinger, *Observation of Three-Particle Entanglement*, Epistemological and Experimental Perspectives on Quantum Physics, Greenberger et al. (eds), Kluwer Academic, Netherlands, 239-243 (1999).
235. G. Weihs, T. Jennewein, C. Simon, H. Weinfurter, A. Zeilinger, *A Bell Experiment under Strict Einstein Locality Conditions*, Epistemological and Experimental Perspectives on Quantum Physics, Greenberger et al. (eds), Kluwer Academic, Netherlands, 267-269 (1999).
234. G. Van der Zouw, A. Zeilinger, *Observation of the Nondispersivity of Scalar Aharonov-Bohm Phase Shifts by Neutron Interferometry*, Epistemological and Experimental Perspectives on Quantum Physics, Greenberger et al. (eds), Kluwer Academic, Netherlands, 263-265 (1999).

233. Č. Brukner, A. Zeilinger, *Quantum Complementarity and Information Invariance*, Epistemological and Experimental Perspectives on Quantum Physics, Greenberger et al. (eds), Kluwer Academic, Netherlands, 231-234 (1999).
232. C. Keller, J. Schmiedmayer, A. Zeilinger, *Matter Wave Diffraction at Standing Light Waves*, Epistemological and Experimental Perspectives on Quantum Physics, Greenberger et al. (eds), Kluwer Academic, Netherlands, 245-247 (1999).
231. Č. Brukner, A. Zeilinger, [Operationally Invariant Information in Quantum Measurements](#), Phys. Rev. Lett. **83**, 3354-3357 (1999).
230. 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).
229. 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).
228. A. Zeilinger, [A Foundational Principle for Quantum Mechanics](#), Found. Physics **29**, 631-643 (1999).
227. C. Simon, G. Weihs, A. Zeilinger, *Quantum Cloning and Signaling*, Acta Phys. Slovaca **49**, 755 (1999).
226. Č. Brukner, A. Zeilinger, [Malus' Law and Quantum Information](#), Acta Phys. Slovaca **89**, 647-652 (1999).
225. 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).
224. M. Zukowski, A. Zeilinger, M. A. Horne, H. Weinfurter, *Independent photons and entanglement. A short overview*, Sixth Conference on Conceptual and Philosophical Problems in Physics, Peyresque, 8-12. 09. 1997, Int. J. Theor. Phys. **98**, 501-517 (1999).
223. S. Bernet, R. Abfalterer, C. Keller, J. Schmiedmayer, A. Zeilinger, *Matter wave sidebands from a complex potential with temporal helicity in complex space*, Proc. Roy. Soc. (London) **455**, 1509-1520 (1999).
222. C. Keller, S. Bernet, J. Schmiedmayer, A. Zeilinger, *Coherent Quantum Channeling of Atomic Matter Waves* (1999).
221. A. Zeilinger, *Experiment and the Foundations of Quantum Physics*, in "More Things in Heaven and Earth, A Celebration of Physics at the Millenium", American Physical Society, B. Bederson (Ed. ), Rev. Mod. Phys. **71**, 288-297 (1999).

220. J. -W. Pan, A. Zeilinger, *Introduction to Quantum Teleportation*, Physics **28**, 609 (1999).
219. 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).
218. M. Horne, I. Jex, A. Zeilinger, [\*Schroedinger base states in strong periodic media\*](#), Proceedings of the International Conference on Macroscopic Quantum Coherence, E. Sassaroli, Y. Srivastava, J. Swain and A. Widom (Eds.), World Scientific (Singapore), 284-300 (1999).
217. R. Abfalterer, S. Bernet, C. Keller, M. K. Oberthaler, J. Schmiedmayer, A. Zeilinger, *Atomic de Broglie waves in periodic light structures*, Proceedings of the International Conference on Macroscopic Quantum Coherence, E. Sassaroli, Y. Srivastava, J. Swain and A. Widom (Eds.), World Scientific (Singapore), 301-315 (1999).

---

## 1998

---

216. C. Keller, S. Bernet, J. Schmiedmayer, A. Zeilinger, *Coherent Channeling of Atomic deBroglie Waves* (1998).
215. K. Raum, J. Felber, M. A. Horne, P. Geltenbort, A. Zeilinger, [\*The Equivalence Principle in Quantum Mechanics and Neutrons that Fall Upwards\*](#) (1998).
214. D. Bouwmeester, J. -W. Pan, M. Daniell, H. Weinfurter, M. Zukowski, A. Zeilinger, [\*Reply to the comment "A posteriori teleportation" by Braunstein and Kimble\*](#), Nature **394**, 841 (1998).
213. A. Zeilinger, *Fundamentals of Quantum Information*, Physics World, 35 (1998).
212. A. G. White, J. R. Mitchell, O. Nairz, P. G. Kwiat, [\*"Interaction-free" imaging\*](#), Phys. Rev. A **58**, 605-613 (1998).
211. D. Bouwmeester, J. -W. Pan, H. Weinfurter, A. Zeilinger, [\*Experimental Quantum Teleportation and Entanglement Swapping\*](#), Technical Digest, EQUQC'98, Glasgow, 184 (1998).
210. 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*, Proc. 14th European Meeting on Cybernetics and System Research, Ed. By Trappl et al. 1,95, 346 (1998).
209. C. Keller, R. Abfalterer, St. 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).

208. J. -W. Pan, A. Zeilinger, [Greenberger-Horne-Zeilinger-state analyzer](#), Phys. Rev. A **57**, 2208 (1998).
207. D. Bouwmeester, J. Schmiedmayer, H. Weinfurter, A. Zeilinger, *Quantum Coherence in Experiment: From Teleportation to Massive Objects*, Proc. of the GR-15 Conference "Gravitation and Relativity: At the turn of the Millenium", IUCAA, Pune, 333 (1998).
206. J. -W. Pan, D. Bouwmeester, H. Weinfurter, A. Zeilinger, [Experimental Entanglement Swapping: entangling photons that never interacted](#), Phys. Rev. Lett. **80**, 3891-3894 (1998).
205. A. Zeilinger, *Quantum Entanglement: A Fundamental Concept Finding its Applications*, Proceedings of the Nobel Symposium 104 "Modern Studies of Basic Quantum Concepts and Phenomena", E. B. Karlsson and E. Brändas (Eds.), Physica Scripta **76**, 203 (1998).
204. M. Zukowski, A. Zeilinger, M. A. Horne, H. Weinfurter, [Quest for GHZ states](#), Int. Conference on 'Quantum Future', Wroclaw, Poland, 1997, Acta Phys. Pol. **93**, 187 (1998).
203. G. Weihs, T. Jennewein, Ch. Simon, H. Weinfurter, A. Zeilinger, [Violation of Bell's inequality under strict Einstein locality conditions](#), Phys. Rev. Lett. **81**, 5039-5043 (1998).
202. D. Bouwmeester, J. -W. Pan, K. Mattle, M. Eibl, H. Weinfurter, A. Zeilinger, M. Zukowski, [Experimental Quantum Teleportation of Arbitrary Quantum States](#), J. Appl. Phys. B **67**, 749 (1998).
201. 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).
200. S. Bernet, R. Abfalterer, C. Keller, J. Schmiedmayer, A. Zeilinger, [Diffractive matter wave optics in time](#), JOSA-B **15**, 2817 (1998).

---

## 1997

199. G. Krenn, A. Zeilinger, [Reply to "Comment on 'Entangled entanglement'"](#), Phys. Rev. A **56**, 4336 (1997).
198. D. Bouwmeester, J. -W. Pan, K. Mattle, M. Eibl, H. Weinfurter, A. Zeilinger, [Experimental Quantum Teleportation](#), Nature **390**, 575-579 (1997).
197. A. Zeilinger, [Get set for the quantum revolution](#), Physics World **54** (1997).
196. D. Bouwmeester, A. Zeilinger, [Atoms that agree to differ](#), Nature **388**, 827-829 (1997).



195. G. Weihs, H. Weinfurter, A. Zeilinger, [A test of Bell's inequalities with independent observers](#), *Acta Physica Slovaca* **47**, 337-340 (1997).
194. P. Kwiat, H. Weinfurter, A. Zeilinger, [Wechselwirkungsfreie Quantenmessung](#), *Spektrum der Wissenschaft* **42** (1997).
193. Č. Brukner, A. Zeilinger, *Nonequivalence between Stationary Matter Wave Optics and Stationary Light Optics*, *Phys. Rev. Lett.* **79**, 2599-2603 (1997).
192. H. Weinfurter, M. Reck, A. Zeilinger, *Quantum Cryptography, Communication and Computation: From Application to Utopia*, Proc. 'Second Intern. Austrian-Israeli Technion Symposium', Graz, Austria, 35 (1997).
191. H. Batelaan, E. M. Rasel, M. Oberthaler, J. Schmiedmayer, A. Zeilinger, *Anomalous Transmission in Atom Optics*, *J. Mod. Opt.* **44**, 2629 (1997).
190. R. Abfalterer, S. Bernet, C. Keller, M. K. Oberthaler, J. Schmiedmayer, A. Zeilinger, [Atom Waves in Standing Light Waves](#), *Acta Physica Slovaca* **47**, 165 (1997).
189. C. Keller, M. K. Oberthaler, R. Abfalterer, S. Bernet, J. Schmiedmayer, A. Zeilinger, *Tailored Complex Potentials and Friedel's Law in Atom Optics*, *Phys. Rev. Lett.* **79**, 3327 (1997).
188. R. Abfalterer, 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).
187. S. Bernet, R. Abfalterer, C. Keller, M. K. Oberthaler, J. Schmiedmayer, A. Zeilinger, *Atom Holography at Light Structures*, *J. Imag. Sci. and Tech.* **41**, 324 (1997).
186. D. Bruss, A. Ekert, S. F. Huelga, J. -W. Pan, A. Zeilinger, *Quantum Computing with Controlled-NOT and a Few Qubits*, *Phil. Trans. R. Soc. Lond. A* **355**, 2259 (1997).
185. A. Zeilinger, *Quantum Teleportation and the Non-Locality of Information*, *Phil. Trans. R. Soc. Lond. A* **355**, 2401-4 (1997).
184. A. Zeilinger, M. A. Horne, H. Weinfurter, M. Zukowski, [Three-Particle Entanglements from Two Entangled Pairs](#), *Phys. Rev. Lett.* **78**, 3031-3034 (1997).
183. Č. Brukner, A. Zeilinger, *Diffraction of Matter Waves in Space and in Time*, *Phys. Rev. A* **56**, 3804-3824 (1997).
182. M. Zukowski, A. Zeilinger, M. A. Horne, *Realizable Higher-dimensional Two-particle Entanglements via Multiport Beam Splitters*, *Phys. Rev. A* **55**, 2564 (1997).

181. G. Weihs, H. Weinfurter, A. Zeilinger, [\*Towards a Long Distance Bell-Experiment with Independent Observers\*](#), *Experimental Metaphysics: "Quantum Mechanical Studies for Abner Shimony"*, Robert S. Cohen, M. A. Horne, John Stachel (Eds.), Kluwer Academic Publishers, Dordrecht, Netherlands, 271-280 (1997).
180. A. Zeilinger, *Entanglement and Indistinguishability: Coherence Experiments with Photon Pairs and Triplets*, Proceedings, ICAP 1996, in "Atomic Physics 15", H. B. van Linden van den Heuvell et. al. (Eds.), World Scientific, 47 (1997).
179. H. Batelaan, S. Bernet, M. K. Oberthaler, E. M. Rasel, J. Schmiedmayer, A. Zeilinger, *Classical and Quantum Atom Fringes*, *Atom Interferometry*, Paul R. Berman (ed. ), Academic Press, San Diego, 85 (1997).

---

## 1996

178. Anton Zeilinger, [\*Jenseits jeder Gewißheit. Das Rätsel der Quantenwelt\*](#), Landesmuseum Joanneum, Graz, (1996).
177. Anton Zeilinger, *The Changing Metaphysics of Science*, Remarks at the Final Panel of the Interdisciplinary Workshop (1996).
176. K. Raum, M. Weber, A. Zeilinger, *Gravity and inertia in neutron crystal optics and VCN interferometry*, *J. Phys. Soc. Japan* v. **65 (suppl. A)**, 277-280 (1996).
175. P. G. Kwiat, K. Mattle, H. Weinfurter, A. Zeilinger, *Polarization-Entangled Photons and Quantum Dense Coding*, *Optics and Photonics News* 7 **No. 12**, 14 (1996).
174. P. G. Kwiat, H. Weinfurter, A. Zeilinger, [\*Quantum Seeing in the Dark\*](#), *Scientific American* **275**, 52-58 (1996).
173. 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", Eberly, Mandel, Wolf (Eds.), Plenum Press, New York, 305 (1996).
172. D. Greenberger, A. Zeilinger, [\*Teoria kwantowa: wciąż zwirowana po tyłu latach\*](#) (*Quantum theory: still crazy after all these years*), *Postepy Fizyki* **47**, 339 (1996).
171. D. N. Greenberger, M. A. Horne, A. Zeilinger, *Tangled Concepts about Entangled States*, *Quantum Interferometry*, F. DeMartini et al. (Eds.), VCH Publishers, Weinheim, 119 (1996).
170. K. Mattle, M. Eibl, H. Weinfurter, A. Zeilinger, *Experimental Quantum Communication*, *Quantum Interferometry*, F. DeMartini et al. (Eds.), VCH Publishers, Weinheim, 119 (1996).

169. S. Bernet, M. K. Oberthaler, R. Abfalterer, J. Schmiedmayer, A. Zeilinger, *Coherent Frequency Shift of Atomic Matter Waves*, Phys. Rev. Lett. **77**, 5160 (1996).
168. M. K. Oberthaler, R. Abfalterer, S. Bernet, J. Schmiedmayer, A. Zeilinger, [Atom Waves in Crystals of Light](#), Phys. Rev. Lett. **77**, 4980-4983 (1996).
167. G. Krenn, A. Zeilinger, [Entangled Entanglement](#), Phys. Rev. A **54**, 1793 (1996).
166. M. K. Oberthaler, S. Bernet, Ernst M. Rasel, J. Schmiedmayer, A. Zeilinger, *Inertial Sensing with Classical Atomic Beams*, Phys. Rev. A **54**, 3165. (1996).
165. 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", Eberly, Mandel, Wolf (Eds.), Plenum Press, New York, 673 (1996).
164. 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", Eberly, Mandel, Wolf (Eds.), Plenum Press, New York, 549 (1996).
163. 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).
162. S. N. Chormaic, S. Franke, J. Schmiedmayer, A. Zeilinger, [Concepts of Temporal Mach-Zehnder Interferometry with Atoms](#), Acta Phys. Slovaca **46**, 463 (1996).
161. S. Bernet, M. Oberthaler, R. Abfalterer, J. Schmiedmayer, A. Zeilinger, *Modulation of atomic de Broglie waves using Bragg diffraction*, Quantum Semiclass. Opt. **8**, 497 (1996).
160. G. Weihs, M. Reck, H. Weinfurter, A. Zeilinger, *Two-Photon Interference in Optical Fiber Multiports*, Phys. Rev. A **54**, 893 (1996).
159. K. Mattle, H. Weinfurter, P. G. Kwiat, A. Zeilinger, [Dense Coding in Experimental Quantum Communication](#), Phys. Rev. Lett. **76**, 4656-4659 (1996).
158. P. W. Milonni, H. Fearn, A. Zeilinger, *Theory of Two-Photon Down-Conversion in the Presence of Mirrors*, Phys. Rev. A **53**, 4556 (1996).
157. M. Michler, K. Mattle, H. Weinfurter, A. Zeilinger, *Interferometric Bell-State Analysis*, Phys. Rev. A **53**, R1209-12 (1996).

156. 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 (1996).
155. A. Zeilinger, H. Weinfurter, [Informationsübertragung und Informationsverarbeitung in der Quantenwelt](#), Phys. Bl. **52**, 219–224 (1996).
154. G. Weihs, M. Reck, H. Weinfurter, A. Zeilinger, *All-fiber three-path Mach-Zehnder interferometer*, Opt. Lett. **21**, 302 (1996).

---

## 1995

153. D. Greenberger, A. Zeilinger, *Quantum Theory: Still Crazy After All These Years*, Phys. World **8**, 33 (1995).
152. M. Zukowski, 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).
151. T. J. Herzog, P. G. Kwiat, H. Weinfurter, A. Zeilinger, [Complementarity and the Quantum Eraser](#), Phys. Rev. Lett. **75**, 3034 (1995).
150. B. Dopfer, P. G. Kwiat, H. Weinfurter, A. Zeilinger, *Brillouin Scattering and Dynamical Diffraction of Entangled Photon Pairs*, Phys. Rev. A **52**, R2531. (1995).
149. 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).
148. A. Zeilinger, [Experiment, Entanglement and the Foundations of Quantum Mechanics](#), in: “The Foundational Debate”, W. DePauli-Schimanovich et al. (Eds.), Kluwer, Dordrecht, 13-19 (1995).
147. 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).
146. A. Zeilinger, *Einstein-Podolsky-Rosen Interferometry*, Ann. Israel Phys. Soc. **12**, 57-72 (1995).
145. 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).
144. K. Mattle, M. Michler, H. Weinfurter, A. Zeilinger, M. Zukowski, *Non-Classical Statistics at Multiport Beam Splitters*, Appl. Phys. B **60**, S111 (1995).

143. D. M. Greenberger, M. A. Horne, A. Zeilinger, *Nonlocality of a Single Photon?*, Phys. Rev. Lett. **75**, 2064 (1995).
142. G. Krenn, A. Zeilinger, *Entangled Entanglement*, in “Fundamental Problems in Quantum Theory”, D. M. Greenberger, A. Zeilinger (Eds.), Annals of the New York Academy of Sciences **755**, 873 (1995).
141. K. Raum, M. Koellner, A. Zeilinger, R. Gähler, *Effective Mass-enhanced Deflection of Neutrons in Noninertial Frames*, reprinted from “Fundamental Problems in Quantum Theory”, D. M. Greenberger, A. Zeilinger (Eds.), Ann. N. Y. Acad. Sci. **755**, 888-891 (1995).
140. M. Zukowski, A. Zeilinger, H. Weinfurter, [Entangling Photons Radiated by Independent Pulsed Sources](#), in “Fundamental Problems in Quantum Theory”, D. M. Greenberger, A. Zeilinger (Eds.), Annals of the New York Academy of Sciences **755**, 91 (1995).
139. H. Weinfurter, T. Herzog, P. G. Kwiat, J. G. Rarity, A. Zeilinger, M. Zukowski, *Frustrated Downconversion: Virtual or Real Photons?*, in “Fundamental Problems in Quantum Theory”, D. M. Greenberger, A. Zeilinger (Eds.), Annals of the New York Academy of Sciences **755**, 61 (1995).
138. 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).
137. P. Kwiat, H. Weinfurter, T. Herzog, A. Zeilinger, M. Kasevich, [Interaction-Free Measurement](#), Phys. Rev. Lett. **74**, 4763-4766 (1995).
136. 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.), Annals of the New York Academy of Sciences **755**, 383 (1995).
135. I. Jex, S. Stenholm, A. Zeilinger, *Hamiltonian Theory of a Symmetric Multipoint*, Opt. Comm. **117**, 95-101 (1995).

---

## 1994

134. 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).
133. 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.), 129 - 138 (1994).

132. M. Reck, A. Zeilinger, H. J. Bernstein, P. Bertani, [Experimental Realization of Any Discrete Unitary Operator](#), Phys. Rev. Lett. **73**, 58-61 (1994).
131. A. Zeilinger, H. J. Bernstein, M. A. Horne, *Information Transfer with Two-State Two-Particle Quantum Systems*, J. Mod. Opt. **41**, 2375 (1994).
130. A. Zeilinger, *Probing Higher Dimensions of Hilbert Space in Experiment*, Acta Phys. Pol. A **85**, 717 (1994).
129. T. J. Herzog, J. G. Rarity, H. Weinfurter, A. Zeilinger, *Frustrated Two-Photon Creation via Interference*, Phys. Rev. Lett. **72**, 629 (1994).
128. 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, (1994).
127. M. Reck, A. Zeilinger, [Quantum Phase Tracing of Correlated Photons in Optical Multiports](#), in: "Quantum Interferometry", F. DeMartini, A. Zeilinger (Eds.), World Scientific, Singapore, (1994).
126. 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", 429-438, Plenum Publishing, London (1994).

---

### 1993

125. D. M. Greenberger, M. A. Horne, A. Zeilinger, [Multiparticle Interferometry and the Superposition Principle](#), Phys. Today **46**, 22-29 (1993).
124. M. Zukowski, A. Zeilinger, M. A. Horne, A. K. Ekert, [Event-Ready-Detectors Bell Experiment via Entanglement Swapping](#), Phys. Rev. Lett. **71**, 4287-4290 (1993).
123. A. Zeilinger, M. Zukowski, 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 (1993); reprinted by Springer in 2012.
122. 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).
121. 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).
120. 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 Science Publishers, 23-28 (1993).

119. A. Zeilinger, H. J. Bernstein, D. M. Greenberger, M. A. Horne, M. Zukowski, *Controlling Entanglement in Quantum Optics*, in: "Quantum Control and Measurement", H. Ezawa, Y. Murayama (Eds.), Elsevier Science Publishers, 9-22 (1993).

---

## 1992

---

118. Anton Zeilinger, [\*Physik und Wirklichkeit - Neuere Entwicklungen zum Einstein-Podolsky-Rosen Paradoxon\*](#), in: „Naturwissenschaft und Weltbild. Mathematik und Quantenphysik in unserem Denk- und Wertesystem“, 99-121 (1992).
117. 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.), Plenum Press, New York, 369 (1992).
116. A. Zeilinger, M. A. Horne, D. M. Greenberger, [\*Higher-Order Quantum Entanglement\*](#), Proceedings "Squeezed States and Quantum Uncertainty", College Park, D. Han, Y. S. Kim, W. W. Zachary (Eds.), NASA Conference Publication 3135, National Aeronautics and Space Administration, (1992).
115. 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

---

114. Anton Zeilinger, [\*Physiker auf der Suche nach der Wirklichkeit\*](#), Naturherrschaft. Wie Mensch und Welt sich in der Wissenschaft begegnen, 99-129 (1991).
113. R. Gähler, A. Zeilinger, [\*Wellenoptische Experimente mit sehr kalten Neutronen\*](#), Physik und Didaktik **22** (3), 217 (1994).
112. M. Zukowski, A. Zeilinger, *Test of the Bell's Inequality Based on Phase and linear Momentum as well as Spin*, Phys. Lett. A **155**, 69 (1991).
111. A. Zeilinger, R. Gähler, M. A. Horne, *On the Topological Nature of the Aharonov-Casher Effect*, Phys. Lett. **154**, 93 (1991).
110. K. Eder, M. Gruber, A. Zeilinger, R. Gähler, W. Mampe, *Diffraction of Very Cold Neutrons at Phase Gratings*, Physica B **172**, 329 (1991).
109. R. Gähler, A. Zeilinger, [\*Wave-Optical Experiments with Very-Cold Neutrons\*](#), Amer. J. Phys. **59**, 316 (1991).

108. J. Summhammer, A. Zeilinger, *Fundamental and applied neutron interferometry*, Physica B **174**, 396-402 (1991).
107. G. Grössing, A. Zeilinger, *Zeno's Paradox in Quantum Cellular Automata*, Physica D **50**, 321-326 (1991).

---

## 1990

---

106. 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 Publishing Co, Singapore, 356-372 (1990).
105. A. Zeilinger, H. J. Bernstein, D. M. Greenberger, M. A. Horne, *Quantum Reality and Higher-Order Correlations: Two Remarks on Entanglement*, Symposium on the Foundations of Modern Physics, P. Lahti, P. Mittelstaedt (Eds.), World Scientific Publ, Singapore, 487 (1990).
104. M. A. Horne, A. Shimony, A. Zeilinger, [\*Two-Particle Interferometry\*](#), Nature **347**, 429 - 430 (1990).
103. D. M. Greenberger, M. A. Horne, A. Shimony, A. Zeilinger, [\*Bell's Theorem Without Inequalities\*](#), Amer. J. Phys. **58**, 1131-1143 (1990).
102. A. Zeilinger, [\*Problemi di interpretazione e ricerca di paradigmi in meccanica quantistica\*](#), "Che cos' e la realta", Franco Selleri (Ed.), Jaca Book, Milano, (1990).
101. A. Zeilinger, *Experiment and Quantum Measurement Theory*, "Quantum Theory Without Reduction", M. Cini, J. -M. Levy-Leblond (Eds.), Hilger, Bristol, 9. (1990).
100. M. A. Horne, A. Shimony, A. Zeilinger, [\*Introduction to Two-Particle Interferometry\*](#), "Sixty-Two Years of Uncertainty: Historical, Philosophical, and Physical Inquiries into the Foundations of Quantum Mechanics", Arthur I. Miller (Ed.), Plenum, N.Y. (1990).
99. D. M. Greenberger, M. A. Horne, A. Zeilinger, [\*Bell's Theorem without Inequalities\*](#), "Sixty-Two Years of Uncertainty: Historical, Philosophical, and Physical Inquiries into the Foundations of Quantum Mechanics", Arthur I. Miller (Ed. ), Plenum, N.Y. (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](#), "Wieviele Leben hat Schrödingers Katze? Zur Physik und Philosophie der Quantenmechanik", J. Audretsch und K. Mainzer (Hrsg. ), B. I. Wissenschaftsverlag, Mannheim, Wien, Zürich, (1990).

---

## 1989

95. A. Zeilinger, M. A. Horne, *Aharonov-Bohm with Neutrons*, Physics 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*, invited book review, Amer. J. Phys. **42**, 630 (1989).
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](#), "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](#), invited book review, Physics Today **41**, 72 (1988).
88. G. Grössing, A. Zeilinger, [Quantum Cellular Automata, A Corrigendum](#), Complex Systems **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 (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](#), Physica B **151**, 366 (1988).

83. M. A. Horne, K. D. Finkelstein, C. G. Shull, A. Zeilinger, H. J. Bernstein, [Neutron Spin-Pendellösung Resonance](#), Physica B **151**, 189 (1988).
82. A. Zeilinger, M. A. Horne, [Neutron Focusing Effects in Perfect-Crystal Systems](#), Physica B **151**, 157 (1988).
81. J. Kamesberger, A. Zeilinger, [Numerical Solution of a Nonlinear Schrödinger Equation for Neutron Optics Experiments](#), Physica B **151**, 193 (1988).
80. G. Grössing, A. Zeilinger, [A Conservation Law in Quantum Cellular Automata](#), Physica D **31**, 70-7 (1988).
79. K. Svozil, A. Zeilinger, [Breakdown of Quantum Electrodynamics in \(g-2\) Experiments](#), Physica Scripta T **21**, 122 (1988).
78. G. Grössing, A. Zeilinger, [Quantum Cellular Automata](#), Complex Systems **2**, 197 (1988).
77. M. Horne, A. Zeilinger, *A Possible Spin-Less Experimental Test of Bell's Inequality*, "Microphysical Reality and Quantum Formalism" A. van der Merwe, F. Selleri, G. Tarozzi (Eds.), Kluwer (Dordrecht), 401 (1988).

---

## 1987

76. A. Zeilinger, *Interpretationsprobleme und Paradigmenuche in der Quantenmechanik*, "Ganzheitsphysik", Grazer Gespräche 1986, M. Heindler, F. E. Moser (Hrsg. ), TU Graz, 212 (1987).
75. A. Zeilinger, *Das Einstein-Podolsky-Rosen-Paradoxon*, "Ganzheitsphysik", Grazer Gespräche 1986, M. Heindler, F. E. Moser (Hrsg. ), 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**, 3089-92 (1986).
69. A. Zeilinger, *Complementarity in Neutron Interferometry*, Physica B **137**, 235 (1986).
68. A. Zeilinger, [Generalized Aharanov-Bohm Experiments with Neutrons](#), Fundamental Aspects of Quantum Theory, Como 1985, V. Gorrini, A. Figueredo (Eds.), Plenum Press, 311 (1986).
67. A. Zeilinger, [Long Wavelength Neutron Interferometry](#), Proceedings of the Workshop on the Investigation of Fundamental Interactions with Cold Neutrons, NBS Special Publication 711, G. Greene (Ed.), Gaithersburg, 112 (1986).
66. K. D. Finkelstein, C. G. Shull, A. Zeilinger, [Magnetic Neutrality of the Neutron](#), Physica B **136**, 131-133 (1986).
65. A. Zeilinger, M. A. Horne, [Neutron Lenses in Interferometry](#), Physica B **136**, 141 (1986).
64. A. Zeilinger, *Testing Quantum Superposition with Cold Neutrons*, Oxford Quantum Gravity Discussion Conference 1984, published in "Quantum Concepts in Space and Time" (C. J. Isham, R. Penrose, Eds.) Oxford University Press, 17 (1986).

---

## 1985

63. M. A. Horne, A. Zeilinger, [A Bell-Type EPR Experiment Using Linear Momenta](#), Symposium on the Foundations of Modern Physics, Joensuu, P. Lahti, P. Mittelstaedt (Eds.), World Scientific Publ. (Singapore), 435-43c9 (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*, International Union of Crystallography 13th Congress, Hamburg 1984. 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](#), ILL-Workshop on Reactor-Based Fundamental Physics, J. physique **45**, C3-239 (1984).
57. A. Zeilinger, [Generalized Aharanov-Bohm and Wheeler-Type Delayed Choice Experiments with Neutrons](#), ILL-Workshop on Reactor Based Fundamental Physics, J. physique **45**, C3-213-216 (1984).
56. A. Zeilinger, M. A. Horne, H. J. Bernstein, [Symmetry Violations and Schwinger Scattering in Neutron Interferometry](#), ILL-Workshop on Reactor-Based Fundamental Physics, J. physique **45**, C3-209 (1984).
55. A. Zeilinger, [Progress in Physics with Neutrons at Small Reactors](#), Use and Development of Low and Medium Flux Research 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](#), Proc. Int. Symp. on Foundations of Quantum Mechanics in the Light of New Technology, (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](#), Proceedings of the International Symposium on Foundations of Quantum Mechanics in the Light of New Technology, (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\*](#), Symposium on Neutron Scattering, Argonne, AIP Conference Proceedings **89**, 93 (1981).
45. A. Zeilinger, [\*Spin Directions of Interfering Beams in Quantum Interferometry\*](#), Nature **294**, 544-6 (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**, 1551-4 (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 Journal **4**, 1280 (1981).
41. R. Gähler, A. G. Klein, A. Zeilinger, [\*Neutron Optical Tests of Nonlinear Wave Mechanics\*](#), Phys. Rev. A **23**, 1611-7 (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**, 1715-8. (1980).
39. G. Badurek, H. Rauch, A. Zeilinger, [\*Dynamic Concepts in Neutron Polarization\*](#), Zeitschrift für Physik 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\*](#), International Workshop on Neutron Spin Echo, Grenoble 1979; in "Neutron Spin Echo" (F. Mezei, Ed.), Lecture Notes in Physics, **128**, Springer Verlag, 136 (1980).
36. A. Zeilinger, [\*Polarization Effects in Neutron Diffraction at Perfect Non-Magnetic Crystals\*](#), International Conference on Polarized Neutrons in Condensed Matter Research; Zaborow, Poland 1979. Nukleonika **25**, 871 (1980).

35. A. Zeilinger, [Perfect Crystal Neutron Optics](#), International Workshop on Imaging Processes and Coherence in Physics. Les Houches 1979, Proceedings in Vol. 112, Lecture Notes in Physics, Springer Verlag, 267 (1980).
34. A. Zeilinger, C. G. Shull, M. A. Horne, G. L. Squires, [Two-Crystal Neutron Interferometry](#), International Workshop on Neutron Interferometry, Grenoble 1978, Proceedings in "Neutron Interferometry" U. Bonse, H. Rauch (Eds.), Oxford University Press, 48-59 (1979).

---

### 1979

---

33. A. Zeilinger, [On the Aharonov-Bohm Effect](#), Lett. Nuovo Cimento Serie 2 **25**, 333-6 (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](#), International Workshop on Neutron Interferometry, Grenoble 1978, Proceedings, Oxford University Press, 355 (1979).
30. M. A. Horne, A. Zeilinger, [Fizeau Effects for Thermal Neutrons](#), International Workshop on Neutron Interferometry, Grenoble 1978, Proceedings, Oxford University Press, 350-4 (1979).
29. A. Zeilinger, [Some Magnetic and Spin Effects in Neutron Interferometry](#), International Workshop on Neutron Interferometry, Grenoble 1978, Proceedings, Oxford University Press, 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](#), Atomic Energy Review **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, Metal Phys. **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, [A 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](#), International Conference on the Interaction of Neutrons with Nuclei, Lowell, Mass, Proceedings, published by ERDA (CONF-760715-P2), 1027 (1976).
20. A. Zeilinger, [General Formulation of Spin Rotations in Neutron Interferometry](#), Zeitschrift für Physik 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](#), 4th European Conference of Triga Reactor Users, Vienna, Published by 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**, 244-6 (1976).
14. A. Zeilinger, R. Huebner, [Untersuchung des Feuchtetransports 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\*](#), International Conference on Peaceful Uses of Atomic Energy for Scientific and Economic Development, Proceedings. 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\*](#), Proceedings of the 3rd International Conference on Structural Mechanics in Reactor Technology, London, H 1/9 (1975).
9. M. Mannoussakis, 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\*](#), 3rd European Conference of Triga Reactor Users, Neuherberg, Published by 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, Published by 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).