# Marek Trippenbach

List of Publications by Year
in descending order

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|---|---|---|---|
| 105 papers | 2,481 citations | 218381 26 h-index | 214527 47 g-index |
| 105 all docs | 105 docs citations | 105 times ranked | 1463 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Four-wave mixing with matter waves. Nature, 1999, 398, 218-220. | 13.7 | 406 |
| 2 | Structure of binary Bose-Einstein condensates. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 4017-4031. | 0.6 | 201 |
| 3 | Measurement of the Coherence of a Bose-Einstein Condensate. Physical Review Letters, 1999, 83, 3112-3115. | 2.9 | 169 |
| 4 | Cold and trapped metastable noble gases. Reviews of Modern Physics, 2012, 84, 175-210. | 16.4 | 119 |
| 5 | Theory of four-wave mixing of matter waves from a Bose-Einstein condensate. Physical Review A, 2000, 62, . | 1.0 | 85 |
| 6 | Effects of self-steepening and self-frequency shifting on short-pulse splitting in dispersive nonlinear media. Physical Review A, 1998, 57, 4791-4803. | 1.0 | 84 |
| 7 | Elastic Scattering Loss of Atoms from Colliding Bose-Einstein Condensate Wave Packets. Physical Review Letters, 2000, 84, 5462-5465. | 2.9 | 63 |
| 8 | Crossover from self-defocusing to discrete trapping in nonlinear waveguide arrays. Optics Express, 2006, 14, 254. | 1.7 | 62 |
| 9 | Four wave mixing in the scattering of Bose-Einstein condensates. Optics Express, 1998, 3, 530. | 1.7 | 50 |
| 10 | Spontaneous Four-Wave Mixing of de Broglie Waves: Beyond Optics. Physical Review Letters, 2010, 104, 150402. | 2.9 | 47 |
| 11 | Supercontinuum generation in an all-normal dispersion large core photonic crystal fiber infiltrated with carbon tetrachloride. Optical Materials Express, 2019, 9, 2264. | 1.6 | 44 |
| 12 | Supercontinuum generation in photonic crystal fibres with core filled with toluene. Journal of Optics (United Kingdom), 2017, 19, 125604. | 1.0 | 40 |
| 13 | Oscillating Solitons in a Three-Component Bose-Einstein Condensate. Physical Review Letters, 2010, 105, 125302. | 2.9 | 37 |
| 14 | Spectroscopy of cross correlations of environmental noises with two qubits. Physical Review A, 2016, 94, . | 1.0 | 37 |
| 15 | Quantum Multimode Model of Elastic Scattering from Bose-Einstein Condensates. Physical Review Letters, 2005, 94, 200401. | 2.9 | 35 |
| 16 | Spontaneous emission of atoms via collisions of Bose-Einstein condensates. Physical Review A, 2002, 65, . | 1.0 | 34 |
| 17 | Stabilization of three-dimensional matter-waves solitons in an optical lattice. Europhysics Letters, 2005, 70, 8-14. | 0.7 | 34 |
| 18 | Supercontinuum generation in photonic crystal fibers infiltrated with nitrobenzene. Laser Physics, 2020, 30, 035105. | 0.6 | 34 |

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|---|---|---|---|
| 19 | Dynamics of short-pulse splitting in dispersive nonlinear media. Physical Review A, 1997, 56, 4242-4253. | 1.0 | 33 |
| 20 | Bose-Einstein condensates in time-dependent light potentials: Adiabatic and nonadiabatic behavior of nonlinear wave equations. Physical Review A, 2002, 65, . | 1.0 | 33 |
| 21 | Two-dimensional solitons in media with stripe-shaped nonlinearity modulation. Physical Review E, 2010, 82, 046602. | 0.8 | 32 |
| 22 | Radio-frequency output coupling of the Bose-Einstein condensate for atom lasers. Physical Review A, 1999, 59, 3823-3831. | 1.0 | 31 |
| 23 | Method for obtaining exact solutions of the nonlinear SchrÃ¶dinger equation for a double-square-well potential. Physical Review A, 2006, 73, . | 1.0 | 31 |
| 24 | Critical fluctuations of an attractive Bose gas in a double-well potential. Europhysics Letters, 2008, 83, 64007. | 0.7 | 30 |
| 25 | Supermode spatial optical solitons in liquid crystals with competing nonlinearities. Physical Review A, 2017, 95, . | 1.0 | 29 |
| 26 | Optimization of optical properties of photonic crystal fibers infiltrated with chloroform for supercontinuum generation. Laser Physics, 2019, 29, 075107. | 0.6 | 28 |
| 27 | Coherence properties of an atom laser. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 47-54. | 0.6 | 27 |
| 28 | Dispersion engineering in nonlinear soft glass photonic crystal fibers infiltrated with liquids. Applied Optics, 2016, 55, 5033. | 2.1 | 27 |
| 29 | Semiclassical matrix elements, essential-states models and perturbation theory of above-threshold ionisation. Journal of Physics B: Atomic, Molecular and Optical Physics, 1989, 22, 1193-1205. | 0.6 | 25 |
| 30 | Adiabaticity in nonlinear quantum dynamics: Bose-Einstein condensate in a time-varying box. Physical Review A, 2002, 65, . | 1.0 | 25 |
| 31 | Elastic scattering losses from colliding Bose-Einstein condensates. Physical Review A, 2006, 73, . | 1.0 | 25 |
| 32 | Simple and efficient generation of gap solitons in Bose-Einstein condensates. Physical Review A, 2006, 73, . | 1.0 | 22 |
| 33 | Femtosecond supercontinuum generation around 1560â€‰â€‰nm in hollow-core photonic crystal fibers filled with carbon tetrachloride. Applied Optics, 2020, 59, 3720. | 0.9 | 22 |
| 34 | Measurement of temperature and concentration influence on the dispersion of fused silica glass photonic crystal fiber infiltrated with waterâ€“ethanol mixture. Optics Communications, 2018, 407, 417-422. | 1.0 | 19 |
| 35 | Simulation of a Single Collision of Two Bose-Einstein Condensates. Physical Review Letters, 2006, 97, 170404. | 2.9 | 18 |
| 36 | Four-wave mixing in a parity-time (PT)-symmetric coupler. Optics Letters, 2015, 40, 5291. | 1.7 | 18 |

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|---|---|---|---|
| 37 | Propagation of light pulses in nonisotropic media. Journal of the Optical Society of America B: Optical Physics, 1996, 13, 1403. | 0.9 | 17 |
| 38 | The dynamics of two entangled qubits exposed to classical noise: role of spatial and temporal noise correlations. Quantum Information Processing, 2015, 14, 3367-3397. | 1.0 | 17 |
| 39 | An improved nonlinear optical pulse propagation equation. Optics Communications, 2002, 210, 385-391. | 1.0 | 16 |
| 40 | Competition between attractive and repulsive interactions in two-component Bose-Einstein condensates trapped in an optical lattice. Physical Review A, 2007, 76, . | 1.0 | 16 |
| 41 | Revivals in an attractive Bose-Einstein condensate in a double-well potential and their decoherence. Physical Review A, 2011, 83, . | 1.0 | 16 |
| 42 | Angular distribution of photoelectrons in the above-threshold ionization of atomic hydrogen. Physical Review A, 1988, 37, 4194-4200. | 1.0 | 15 |
| 43 | Thermal effects in light scattering from ultracold bosons in an optical lattice. Physical Review A, 2009, 80, . | 1.0 | 15 |
| 44 | Optical Wave-Packet Propagation in Nonisotropic Media. Physical Review Letters, 1996, 76, 1457-1460. | 2.9 | 14 |
| 45 | Symmetric and asymmetric solitons trapped in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi mathvariant="sans-serif">H</mml:mi></mml:math>-shaped potentials. Physical Review A, 2011, 84, . | 1.0 | 14 |
| 46 | Semi-analytical approach to supermode spatial solitons formation in nematic liquid crystals. Optics Express, 2017, 25, 23893. | 1.7 | 14 |
| 47 | Self-consistent treatment of the full vectorial nonlinear optical pulse propagation equation in an isotropic medium. Optics Communications, 2003, 221, 337-351. | 1.0 | 13 |
| 48 | Class of compact entities in three-component Bose-Einstein condensates. Physical Review A, 2011, 83, . | 1.0 | 13 |
| 49 | Dispersion characteristics of a suspended-core optical fiber infiltrated with water. Applied Optics, 2017, 56, 1012. | 2.1 | 13 |
| 50 | Absorption-mediated stabilization of nonlinear propagation of vortex beams in nematic liquid crystals. Optics Communications, 2019, 451, 338-344. | 1.0 | 13 |
| 51 | Highly nonlinear dynamics of third-harmonic generation by focused beams. Physical Review A, 2004, 69, . | 1.0 | 12 |
| 52 | Bose-Einstein condensate in a double well potential in the vicinity of a critical point. Laser Physics, 2010, 20, 671-677. | 0.6 | 12 |
| 53 | Single and double linear and nonlinear flatband chains: Spectra and modes. Physical Review E, 2017, 96, 012204. | 0.8 | 12 |
| 54 | Near-field and far-field propagation of beams and pulses in dispersive media. Optics Letters, 1997, 22, 579. | 1.7 | 11 |

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|---|---|---|---|
| 55 | Diagonal versus off-diagonal continuumâ€“continuum couplings in the above-threshold ionization of hydrogen. Journal of the Optical Society of America B: Optical Physics, 1987, 4, 1429. | 0.9 | 10 |
| 56 | Above-threshold ionisation of the classical atom. Journal of Physics B: Atomic, Molecular and Optical Physics, 1988, 21, 1673-1680. | 0.6 | 10 |
| 57 | Stabilization of three-dimensional light bullets by a transverse lattice in a Kerr medium with dispersion management. Optics Communications, 2006, 259, 49-54. | 1.0 | 10 |
| 58 | Stabilization of solitons under competing nonlinearities by external potentials. Chaos, 2014, 24, 043136. | 1.0 | 9 |
| 59 | Spontaneous symmetry breaking of self-trapped and leaky modes in quasi-double-well potentials. Physical Review A, 2016, 93, . | 1.0 | 9 |
| 60 | Influence of temperature on dispersion properties of photonic crystal fibers infiltrated with water. Optical and Quantum Electronics, 2017, 49, 1. | 1.5 | 9 |
| 61 | Scalar and vector supermode solitons owing to competing nonlocal nonlinearities. Optics Express, 2021, 29, 8015. | 1.7 | 9 |
| 62 | Modulational instability of coupled ring waveguides with linear gain and nonlinear loss. Scientific Reports, 2017, 7, 4089. | 1.6 | 8 |
| 63 | Linear-versus-nonlinear regime in macroscopic quantum fluctuations of Stokes pulses. Physical Review A, 1985, 31, 1932-1935. | 1.0 | 7 |
| 64 | Elastic scattering losses in the four-wave mixing of Boseâ€“Einstein condensates. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, L391-L398. | 0.6 | 7 |
| 65 | Enhancement of third harmonic generation by wave vector mismatch to counter phase-modulation. Optics Communications, 2004, 229, 391-395. | 1.0 | 7 |
| 66 | Spatial control of the competition between self-focusing and self-defocusing nonlinearities in one- and two-dimensional systems. Physical Review A, 2014, 90, . | 1.0 | 7 |
| 67 | Cauchyâ€“Schwarz inequality for general measurements as an entanglement criterion. Quantum Information Processing, 2016, 15, 269-278. | 1.0 | 7 |
| 68 | Supermode spatial solitons via competing nonlocal nonlinearities. Photonics Letters of Poland, 2018, 10, 33. | 0.2 | 7 |
| 69 | Loading Bose-Einstein-condensed atoms into the ground state of an optical lattice. Physical Review A, 2005, 72, . | 1.0 | 6 |
| 70 | Optical Thouless pumping transport and nonlinear switching in a topological low-dimensional discrete nematic liquid crystal array. Physical Review A, 2022, 105, . | 1.0 | 6 |
| 71 | An extended representation of three-spin-component Boseâ€“Einstein condensate solitons. Physica D: Nonlinear Phenomena, 2012, 241, 1811-1814. | 1.3 | 5 |
| 72 | Route to chaos in a coupled microresonator system with gain and loss. Nonlinear Dynamics, 2019, 97, 559-569. | 2.7 | 5 |

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|---|---|---|---|
| 73 | Supercontinuum generation in benzene-filled hollow-core fibers. Optical Engineering, 2021, 60, . | 0.5 | 5 |
| 74 | Four-wave mixing with Bose-Einstein condensates in nonlinear lattices. Europhysics Letters, 2014, 105, 64002. | 0.7 | 4 |
| 75 | Full quantum state determination via time dependent spectrum data. Journal of Chemical Physics, 1996, 105, 8463-8466. | 1.2 | 3 |
| 76 | Feshbach Resonance without a Closed-Channel Bound State. Physical Review Letters, 2013, 111, 155301. | 2.9 | 3 |
| 77 | Vortex Creation without Stirring in Coupled Ring Resonators with Gain and Loss. Symmetry, 2018, 10, 195. | 1.1 | 3 |
| 78 | Four-wave mixing in spinâ€“orbit coupled Boseâ€“Einstein condensates. New Journal of Physics, 2020, 22, 053019. | 1.2 | 3 |
| 79 | Pair-correlation function of a metastable helium Bose-Einstein condensate. Physical Review A, 2004, 69, . | 1.0 | 2 |
| 80 | Applicability of suspended-core fibres for attenuation-based label-free biosensing. Optics Communications, 2017, 402, 290-295. | 1.0 | 2 |
| 81 | Nonlinear optical pulse propagation: expansion to all orders in diffraction and dispersion. , 2001, , . | | 1 |
| 82 | Publisherâ€™s note: Adiabaticity in nonlinear quantum dynamics: Bose-Einstein condensate in a time-varying box [Phys. Rev. A65, 033607 (2002)]. Physical Review A, 2002, 65, . | 1.0 | 1 |
| 83 | Useful models of four-wave mixing in Boseâ€“Einstein condensates. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, 4327-4337. | 0.6 | 1 |
| 84 | Two- and three-dimensional light bullets in a Kerr medium with dispersion management. , 2005, , . | | 1 |
| 85 | Matter wave soliton collisions in the quasi one-dimensional potential. Physica D: Nonlinear Phenomena, 2009, 238, 1449-1455. | 1.3 | 1 |
| 86 | Symmetry breaking in the collisions of double channel BEC solitons. Physica D: Nonlinear Phenomena, 2014, 269, 37-41. | 1.3 | 1 |
| 87 | Stabilization of Light Bullets by a Transverse Lattice in a Kerr Medium with Dispersion Management. , 2005, , . | | 1 |
| 88 | Linear and nonlinear light beam propagation in chiral nematic liquid crystal waveguides. Photonics Letters of Poland, 2016, 8, . | 0.2 | 1 |
| 89 | "Optical processes in nanostructures with gain and loss". , 2017, , . | | 1 |
| 90 | Probing evanescent modes from near-field optical microscopes:. Ultramicroscopy, 1998, 71, 31-38. | 0.8 | 0 |

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|---|---|---|---|
| 91 | Dynamics of short intense pulse propagation in dispersive media. , 1998, 3264, 132. | | 0 |
| 92 | Nonlinear atom optics: four-wave mixing. , 2000, 3928, 272. | | 0 |
| 93 | Propagation of ultrashort pulses through transparent dielectrics in nonlinear regime. , 2003, , . | | 0 |
| 94 | Nonlinear propagation of femtosecond laser pulses in dielectrics. , 2003, 5258, 20. | | 0 |
| 95 | Observation of critical self focusing during propagation of femtosecond light pulses in bulk media. , 2005, , . | | 0 |
| 96 | Discrete self-trapping vs. defocusing in nonlinear waveguide arrays. , 2006, , . | | 0 |
| 97 | Dispersion engineering in soft glass photonic crystal fibers infiltrated with liquids. Proceedings of SPIE, 2015, , . | 0.8 | 0 |
| 98 | Temperature sensitivity of photonic crystal fibers infiltrated with ethanol solutions. , 2015, , . | | 0 |
| 99 | Symmetry Breakings in Dual-Core Systems with Double-Spot Localization of Nonlinearity. Symmetry, 2018, 10, 156. | 1.1 | 0 |
| 100 | Conference on Nonlinear Optics and Novel Materials. Photonics Letters of Poland, 2016, 8, . | 0.2 | 0 |
| 101 | Optical properties of nanostructured gradient index vortex masks. , 2018, , . | | 0 |
| 102 | Development of nanostructured gradient index microlenses for mid infrared. , 2018, , . | | 0 |
| 103 | Development of nanostructured GRIN microlenses with temperature-controlled diffusion. , 2019, , . | | 0 |
| 104 | On the nonlinear dynamics of coupled micro-resonators. , 2019, , . | | 0 |
| 105 | Atoms in a spin dependent optical potential: ground state topology and magnetization. New Journal of Physics, 2022, 24, 033041. | 1.2 | 0 |