# Nick P Proukakis

List of Publications by Year
in descending order



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|---|---|---|---|
| 85 papers | 2,646 citations | 136740 32 h-index | 197535 49 g-index |
| 86 all docs | 86 docs citations | 86 times ranked | 1146 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Finite-temperature models of Boseâ€“Einstein condensation. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 203002. | 0.6 | 238 |
| 2 | Low dimensional Bose gases. Physical Review A, 2002, 66, . | 1.0 | 103 |
| 3 | Nonclassical Velocity Statistics in a Turbulent Atomic Bose-Einstein Condensate. Physical Review Letters, 2010, 104, 075301. | 2.9 | 98 |
| 4 | Microscopic treatment of binary interactions in the nonequilibrium dynamics of partially Bose-condensed trapped gases. Physical Review A, 1998, 57, 1230-1247. | 1.0 | 93 |
| 5 | Roadmap on Atomtronics: State of the art and perspective. AVS Quantum Science, 2021, 3, . | 1.8 | 87 |
| 6 | Gapless mean-field theory of Bose-Einstein condensates. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 3825-3846. | 0.6 | 82 |
| 7 | Phase separation and dynamics of two-component Bose-Einstein condensates. Physical Review A, 2016, 94, . | 1.0 | 78 |
| 8 | Finite-temperature vortex dynamics in Bose-Einstein condensates. Physical Review A, 2009, 79, . | 1.0 | 76 |
| 9 | Soliton-Sound Interactions in Quasi-One-Dimensional Bose-Einstein Condensates. Physical Review Letters, 2003, 90, 220401. | 2.9 | 72 |
| 10 | Dark-soliton dynamics in Bose-Einstein condensates at finite temperature. Physical Review A, 2007, 75, . | 1.0 | 67 |
| 11 | Generalized mean fields for trapped atomic Bose-Einstein condensates. Journal of Research of the National Institute of Standards and Technology, 1996, 101, 457. | 0.4 | 64 |
| 12 | Matter-Wave Dark Solitons: Stochastic versus Analytical Results. Physical Review Letters, 2010, 104, 174101. | 2.9 | 61 |
| 13 | Modeling quantum fluid dynamics at nonzero temperatures. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 4675-4682. | 3.3 | 61 |
| 14 | Controlled Vortex-Sound Interactions in Atomic Bose-Einstein Condensates. Physical Review Letters, 2004, 92, 160403. | 2.9 | 55 |
| 15 | The stochastic Gross-Pitaevskii equation and some applications. Laser Physics, 2009, 19, 558-570. | 0.6 | 54 |
| 16 | Comparison of gapless mean-field theories for trapped Bose-Einstein condensates. Physical Review A, 1998, 58, 2435-2445. | 1.0 | 50 |
| 17 | Creation and characterization of vortex clusters in atomic Bose-Einstein condensates. Physical Review A, 2012, 86, . | 1.0 | 50 |
| 18 | Analogies between dark solitons in atomic Boseâ€“Einstein condensates and optical systems. Journal of Optics B: Quantum and Semiclassical Optics, 2004, 6, S380-S391. | 1.4 | 48 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Quasicondensate growth on an atom chip. Physical Review A, 2006, 73, . | 1.0 | 48 |
| 20 | Dynamical Critical Exponents in Driven-Dissipative Quantum Systems. Physical Review Letters, 2018, 121, 095302. | 2.9 | 46 |
| 21 | Comparison between microscopic methods for finite-temperature Bose gases. Physical Review A, 2011, 83, . | 1.0 | 45 |
| 22 | Equilibrium solutions for immiscible two-species Bose-Einstein condensates in perturbed harmonic traps. Physical Review A, 2013, 87, . | 1.0 | 44 |
| 23 | Dynamics of shallow dark solitons in a trapped gas of impenetrable bosons. Physical Review A, 2004, 70, . | 1.0 | 42 |
| 24 | Parametric Driving of Dark Solitons in Atomic Bose-Einstein Condensates. Physical Review Letters, 2004, 93, 130408. | 2.9 | 42 |
| 25 | Dynamical equilibration across a quenched phase transition in a trapped quantum gas. Communications Physics, 2018, 1, . | 2.0 | 42 |
| 26 | Dynamical instability of a dark soliton in a quasi-one-dimensional Boseâ€“Einstein condensate perturbed by an optical lattice. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, S175-S185. | 0.6 | 37 |
| 27 | Deformation of dark solitons in inhomogeneous Boseâ€“Einstein condensates. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, 2891-2910. | 0.6 | 36 |
| 28 | Collisionless Sound in a Uniform Two-Dimensional Bose Gas. Physical Review Letters, 2018, 121, 145302. | 2.9 | 35 |
| 29 | Vortex reconnections in atomic condensates at finite temperature. Physical Review A, 2014, 90, . | 1.0 | 34 |
| 30 | Critical Transport and Vortex Dynamics in a Thin Atomic Josephson Junction. Physical Review Letters, 2020, 124, 045301. | 2.9 | 34 |
| 31 | Observable vortex properties in finite-temperature Bose gases. Physical Review A, 2013, 87, . | 1.0 | 33 |
| 32 | Controllable nonlocal interactions between dark solitons in dipolar condensates. Physical Review A, 2015, 92, . | 1.0 | 33 |
| 33 | Dark soliton decay due to trap anharmonicity in atomic Bose-Einstein condensates. Physical Review A, 2010, 81, . | 1.0 | 32 |
| 34 | Ab initiomethods for finite-temperature two-dimensional Bose gases. Physical Review A, 2012, 86, . | 1.0 | 28 |
| 35 | Exploring vortex dynamics in the presence of dissipation: Analytical and numerical results. Physical Review A, 2014, 89, . | 1.0 | 28 |
| 36 | Dimensional and temperature crossover in trapped Bose gases. Physical Review A, 2003, 68, . | 1.0 | 27 |

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|---|---|---|---|
| 37 | Many-body physics in the classical-field description of a degenerate Bose gas. Physical Review A, 2011, 84, . | 1.0 | 27 |
| 38 | Stochastic growth dynamics and composite defects in quenched immiscible binary condensates. Physical Review A, 2016, 93, . | 1.0 | 26 |
| 39 | Quantitative study of quasi-one-dimensional Bose gas experiments via the stochastic Gross-Pitaevskii equation. Physical Review A, 2011, 84, . | 1.0 | 24 |
| 40 | Kibble-Zurek Mechanism in Driven Dissipative Systems Crossing a Nonequilibrium Phase Transition. Physical Review Letters, 2020, 125, 095301. | 2.9 | 24 |
| 41 | Spatial correlation functions of one-dimensional Bose gases at equilibrium. Physical Review A, 2006, 74, . | 1.0 | 23 |
| 42 | Time-of-flight expansion of binary Boseâ€“Einstein condensates at finite temperature. New Journal of Physics, 2018, 20, 053004. | 1.2 | 22 |
| 43 | Self-consistent quantum kinetics of condensate and non-condensate via a coupled equation of motion formalism. Journal of Physics B: Atomic, Molecular and Optical Physics, 2001, 34, 4737-4755. | 0.6 | 21 |
| 44 | Matter Wave Solitons at Finite Temperatures. Journal of Low Temperature Physics, 2007, 148, 387-391. | 0.6 | 21 |
| 45 | Josephson tunnelling of a phase-imprinted Boseâ€“Einstein condensate in a time-dependent double-well potential. New Journal of Physics, 2004, 6, 42-42. | 1.2 | 19 |
| 46 | Engineering dark solitary waves in ring-trap Boseâ€“Einstein condensates. New Journal of Physics, 2016, 18, 025004. | 1.2 | 19 |
| 47 | Kibble-Zurek dynamics in a trapped ultracold Bose gas. Physical Review Research, 2020, 2, . | 1.3 | 18 |
| 48 | Phase coherence in quasicondensate experiments: Anab initioanalysis via the stochastic Gross-Pitaevskii equation. Physical Review A, 2012, 86, . | 1.0 | 17 |
| 49 | Probing quasi-integrability of the Grossâ€“Pitaevskii equation in a harmonic-oscillator potential. Journal of Physics B: Atomic, Molecular and Optical Physics, 2018, 51, 205303. | 0.6 | 17 |
| 50 | Immiscible and miscible states in binary condensates in the ring geometry. New Journal of Physics, 2019, 21, 073058. | 1.2 | 15 |
| 51 | Quench dynamics of an ultracold two-dimensional Bose gas. Physical Review A, 2019, 100, . | 1.0 | 15 |
| 52 | Coherent cross talk and parametric driving of matter-wave vortices. Physical Review A, 2012, 86, . | 1.0 | 13 |
| 53 | Persistent current formation in double-ring geometries. Journal of Physics B: Atomic, Molecular and Optical Physics, 2020, 53, 115301. | 0.6 | 13 |
| 54 | Non-equilibrium Berezinskii-Kosterlitz-Thouless transition in driven-dissipative condensates <sup>(a)</sup>. Europhysics Letters, 2021, 133, 17002. | 0.7 | 13 |

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|---|---|---|---|
| 55 | Evaporative cooling of cold atoms at surfaces. Physical Review A, 2014, 90, . | 1.0 | 12 |
| 56 | Tunnelling induced collapse of an atomic Boseâ€“Einstein condensate in a double-well potential. Journal of Physics B: Atomic, Molecular and Optical Physics, 2004, 37, 3681-3690. | 0.6 | 11 |
| 57 | Interplay of density and phase fluctuations in ultracold one-dimensional Bose gases. Physical Review A, 2006, 73, . | 1.0 | 11 |
| 58 | Long-range sound-mediated dark-soliton interactions in trapped atomic condensates. Physical Review A, 2011, 83, . | 1.0 | 11 |
| 59 | Kinetic model of trapped finite-temperature binary condensates. Physical Review A, 2015, 91, . | 1.0 | 11 |
| 60 | Cross-over to quasi-condensation: mean-field theories and beyond. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 114002. | 0.6 | 10 |
| 61 | Dynamical phase diagram of ultracold Josephson junctions. New Journal of Physics, 2020, 22, 123006. | 1.2 | 10 |
| 62 | Theory of Boseâ€“Einstein condensation for trapped atoms. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 1997, 355, 2235-2245. | 1.6 | 9 |
| 63 | A Phenomenological Model of the Growth of Two-Species Atomic Bose-Einstein Condensates. Journal of Physics: Conference Series, 2014, 497, 012029. | 0.3 | 9 |
| 64 | Quantum turbulence in atomic Bose-Einstein condensates. Journal of Physics: Conference Series, 2014, 544, 012023. | 0.3 | 9 |
| 65 | Reservoir interactions of a vortex in a trapped three-dimensional Bose-Einstein condensate. Physical Review A, 2016, 93, . | 1.0 | 9 |
| 66 | Vortex scattering by impurities in a Boseâ€“Einstein condensate. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 115003. | 0.6 | 9 |
| 67 | Crossover dark soliton dynamics in ultracold one-dimensional Bose gases. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 364, 129-134. | 0.9 | 8 |
| 68 | Isotropic vortex tangles in trapped atomic Bose-Einstein condensates via laser stirring. Physical Review A, 2014, 89, . | 1.0 | 8 |
| 69 | Effects of interatomic collisions on atom-laser outcoupling. Journal of Physics B: Atomic, Molecular and Optical Physics, 2003, 36, 2797-2816. | 0.6 | 6 |
| 70 | Non-equilibrium atomic condensates and mixtures: collective modes, condensate growth and thermalisation. Journal of Physics B: Atomic, Molecular and Optical Physics, 2016, 49, 214003. | 0.6 | 6 |
| 71 | Dynamics of a degenerate Cs-Yb mixture with attractive interspecies interactions. Physical Review Research, 2021, 3, . | 1.3 | 6 |
| 72 | Nonequilibrium kinetic theory for trapped binary condensates. Physical Review A, 2015, 92, . | 1.0 | 5 |

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|---|---|---|---|
| 73 | Turbulence in a Bose-Einstein condensate. Journal of Physics: Conference Series, 2011, 318, 062003. | 0.3 | 4 |
| 74 | Topological stirring of two-dimensional atomic Bose-Einstein condensates. Journal of Physics: Conference Series, 2014, 544, 012021. | 0.3 | 4 |
| 75 | Crossover in the dynamical critical exponent of a quenched two-dimensional Bose gas. Physical Review Research, 2021, 3, . | 1.3 | 4 |
| 76 | Equilibration of a finite-temperature binary Bose gas formed by population transfer. Physical Review A, 2014, 90, . | 1.0 | 3 |
| 77 | Selected Theoretical Comparisons for Bosons. Cold Atoms, 2013, , 261-286. | 0.3 | 2 |
| 78 | Beyond Gross-Pitaevskii Mean-Field Theory. , 2008, , 353-373. | | 1 |
| 79 | Periodic quenches across the Berezinskii-Kosterlitz-Thouless phase transition. Physical Review Research, 2021, 3, . | 1.3 | 1 |
| 80 | Ultracold Gases with Intrinsic Scale Invariance. , 0, , 168-186. | | 0 |
| 81 | Interactions in trapped Bose-Einstein condensates. , 1999, , . | | 0 |
| 82 | The Stochastic Grossâ€“Pitaevskii Methodology. Cold Atoms, 2013, , 177-189. | 0.3 | 0 |
| 83 | Introduction to Theoretical Modelling. Cold Atoms, 2013, , 63-83. | 0.3 | 0 |
| 84 | A Dynamical Self-Consistent Finite-Temperature Kinetic Theory: The ZNG Scheme. Cold Atoms, 2013, , 93-105. | 0.3 | 0 |
| 85 | Reconciling the Classical-Field Method with the Beliaev Broken-Symmetry Approach. Cold Atoms, 2013, , 299-312. | 0.3 | 0 |