

Professor Sir Keith Burnett FRS

CURRICULUM VITAE

DEGREES

1975 B.A. First Class, Jesus College, Oxford
1979 D.Phil, Clarendon Laboratory, Oxford

AWARDS

1982 - 1986 A.P. Sloan Fellowship
1992 - 1995 Max-Planck Research Prize for Physics
1997 Thomas Young Medal and Prize of the Institute of Physics
2002 Royal Society Wolfson Merit Award
2004. CBE for services to Physics
2013 Knighted for services to Science and Higher Education
2014 Individual Excellence Award, The People's Republic of China

APPOINTMENTS

Current (U.K.)

2018 - present Chair of the Academic Council, Schmidt Science Fellowship
(in partnership with the Rhodes Trust, The University of Oxford)
2018 - present Chair of the Nuffield Foundation
2016 - present President – The Science Council
2018 - present Chair - National Technicians Development Centre

Current (International)

2018 - present International Board - Study Group
2019 - present Chair of the International Advisory Board, Tsinghua University
Future Lab
2017 - present International Council - Confucius Institutes
2020 - present Thomas School Steering Committee, Ambright Group.

PREVIOUS APPOINTMENTS

2007 Vice-Chancellor – The University of Sheffield
2005-2007 Head of the Division of Mathematical and
Physical and Life Sciences, Oxford University

2002-2005	Chairman of Physics, Oxford University
1998-2002	Head of Atomic and Laser Physics, Oxford University
1996-7	Associate Chair of Physics, Oxford University
1996	Professor of Physics, Oxford University
1987	University Lecturer in Physics and Fellow of St John's College, Oxford
1984 – 1987.	Lecturer, Department of Physics, Imperial College
1980 - 1983	Assistant Professor, Department of Physics, University of Colorado (also Fellow of JILA 1981-83)
1979 – 1980	Research Associate, Joint Institute for Laboratory Astrophysics

HIGHER EDUCATION ADVISORY BODIES

Science

Council of the Royal Society

Prime-Minister's Council of Science and Technology (2014-2020)

Chair of HEATED – Supporting scientific technicians, The Institute of Science and Technology

Education

Member of the Higher Education Funding Council for England

Higher Education Funding Council for Wales

Chair of Universities and Colleges Employer's Association

Chair N8 Research Alliance

Chair Graduate Prospects Board

MEMBERSHIP OF PROFESSIONAL BODIES

Fellow of the Royal Society (2001)

Fellow of the Institute of Physics (1997)

Fellow of the American Physical Society (1996)

Fellow of the Optical Society of America (1996)

Member of the Institute of Physics Council (1998-2002)

Chairman of the Atomic and Molecular Physics Division of the IOP (1996-2000)

JOURNALS

Honorary Editor, Journal of Physics B	1995 - 2005
Divisional Editor Physical Review Letters	2001 - 2006
Editorial Board of the Physical Review A	1992-2000
Associate Editor, Reviews of Modern Physics	2002- 2005

GENERAL AND EDUCATION MEDIA

Print and Broadcast

Financial Times, Economist, Times, Telegraph, Guardian, Independent, Yorkshire Post
BBC, Bloomberg, Sky News

Overseas

South China Morning Post, China Daily, Xinhua News, Washington Post
BBC World, CNBC, ABC, CCTV and other Chinese broadcasters

Higher Education

Times Higher Education, PIE News

SERC/EPSRC/DTI/MOD/DIUS

Atomic and Molecular Subcommittee Member 1988-1991 and Chairman 1991-1994

Laser Facility Committee member 1988 - 1991

(Laser Support Facility Panel member 1988 - 1991 Chair 1991)

Review of Synchrotron Radiation 1993(This committee was set up to report to the SERC on the provision of synchrotron radiation for the United Kingdom)

Physics Committee member 1991 - 1994

Member of EPSRC Physics College 1994 - present

Member of the Technical Opportunities Panel 1997 - 2003

Chairman of the Physics Programme evaluation panel 1997

Chairman of the Technical Opportunities Panel 1998-2003

Member of the Engineering and Physical Science Research Council 1999-2003

Chairman of the Review of Fusion Science by DTI. Reporting to Minister 2000

Chairman of the Fusion Advisory Board (UK Atomic Energy Authority) 2001-2007

Member of the International Science Advisory Committee to CCRLC 2002-2007

Member of Council CCLRC 2005-2009

Member of Council STFC 2007-2011

Member Diamond Light Source 2007-2008

PUBLICATIONS LIST

Original Peer Reviewed Papers

1. 'Resonance broadening in neon at low densities'. J. Phys. B. Lett. 12 143-146 (1978) with P E G Baird, R Damaschini, D N Stacey and R C Thompson.
2. 'Optical isotope shifts and hyperfine structure in 553.5 nm of barium'. Proc. Roy. Soc. Lond. A365 567-582 (1979), with P.E.G Baird, R J Brambley, D N Stacey, D M Warrington and G K Woodgate.
3. 'Zeeman degeneracy effects in collisional intense field resonance fluorescence'. Phys. Rev. A22, 535-544 (1980), with J Cooper and R J Ballagh.
4. 'Collisional redistribution of radiation. I The density matrix'. Phys. Rev. A22, 2005-2026 (1980), with J Cooper, R J Ballagh and E W Smith.
5. 'Collisional redistribution of radiation. II The effects of degeneracy on the equation of motion for the density matrix.' Phys. Rev. A22, 2027-2043 (1980), with J Cooper.
6. 'Collisional redistribution of radiation. III The equation of motion for the correlation function and the scattered spectrum'. Phys. Rev. A22, 2044-2060 (1980) with J Cooper.
7. 'Observation of dynamical correlations in collisional redistribution and depolarization of light'. Phys. Rev. Lett. 45 1325-1328 (1980), with P Thomann and J Cooper.
8. 'Redistribution of radiation for the wings of Lyman alpha'. Astrophys. J. 248, 705-715 (1981), with J B Yelnik, J Cooper, R J Ballagh and D Voslamber.
9. 'Observation of Zeeman degeneracy effects in collisional intense field resonance fluorescence'. Phys. Lett. 84A, 182-184 (1981) with P D Kleiber and J Cooper.
10. 'Observations of the modification of 'optical' collision dynamics in intense laser fields'. Phys. Rev. Lett. 47, 1595-1598 (1981) with P D Kleiber and J Cooper.
11. 'Observation of effect of stimulated processes on dressed state collisional kinetics'. Phys. Rev. A25 1184-1191 (1982) with P D Kleiber and J Cooper.
12. 'Collisional redistribution of radiation in strong fields: modification of the collision dynamics'. Phys. Rev. A25 1345-1357 (1982) with P D Kleiber, J Cooper and A Ben-Reuven.
13. 'Influence of spontaneous emission on laser induced auto-ionization'. Phys. Rev. Lett. 47 1164-1167 (1982) with G A Agarwal, S L Haan and J Cooper.

14. 'On redistribution and the equations for radiative transfer'. *Astrophys. J.* 260 299-316 (1982) with J Cooper, R J Ballagh and D G Hummer.
15. 'Laser induced continuum structure in multiphoton ionization'. *Opt. Comm.* 42 171-178 (1982) with P E Coleman and P L Knight.
16. 'Photoemission spectra in intense laser field induced auto-ionization'. *Phys. Rev.* A26 2277-2270 (1982) with G A Agarwal, S L Haan and J Cooper.
17. 'Theory of time dependent intense-field collisional resonance fluorescence'. *Phys. Rev.* A27 291-301 (1983) with P D Kleiber, J Cooper, C V Kunasz and M G Raymer.
18. 'The polarization of collisionally redistributed atomic fluorescence'. *J. Phys.* B16 553-562 (1983) with E L Lewis, M Harris, W J Alford and J Cooper.
19. 'Polarization of collisionally redistributed light from the far wings of strontium - rare-gas systems'. *Phys. Rev.* A27 1310-1313 (1983) with W J Alford and J Cooper.
20. 'Saturation behaviour of far-wing satellite'. *J Chem. Phys.* 78 1297-1300 (1983) with W Molander, M Belsley and D Farrelly.
21. 'Uniform semiclassical off-shell wave functions and T-matrix elements'. *Phys. Rev.* A28 3291-3299, with M Belsley.
22. 'A time-dependent study of radiation trapping by time-delayed two-photon absorption'. *Phys. Rev.* A29 1548-1551 (1984) with W Molander, M Belsley and A Streater.
23. 'Collisional redistribution of light: Far wing line shapes and polarization for the Ba-Ar, Xe systems'. *Phys. Rev.* A30 2366 (1984) with W J Alford, N Andersen and J Cooper.
24. 'Collisional redistribution of circularly polarized light in barium perturbed by argon'. *Phys. Rev.* A31 3012-3016 (1985) with W J Alford, N Andersen, M Belsley, J Cooper and D M Warrington.
25. 'Effect of quasi bound states on collisional redistribution.' *J Quant. Spectrosc. Radiat. Trans.*, vol 35, No. 1, 53-65 (1986) with W J Alford, M Belsley and J Cooper.
26. 'Measurement of tagged particle diffusion using delayed two-photon absorption'. *Phys. Rev.* A34 1584-1586 (1986) with A Streater, G Kintz, A Santos and J W Dufty.
27. 'Observation of Radiative Transfer of Polarized Light'. *J Quant. Spectrosc. Radiat. Trans.*, vol 36, No. 2, 163-173 (1983) with M Belsley, A Streater, P Ewart and J Cooper.
28. 'A proposed absorption spectroscopy for studying energy levels of atoms in collision

- with surfaces'. Surf. Sci. 183, 161 (1987) with R Kawai, K C Liu and D M Newns (Surface Science).
29. 'A double resonance method for studying collision rates in an intense laser field'. J Mod. Opt, 35, No. 10, 1651-1666 (1988) with S Cavalieri.
 30. 'Modifying excitation transfer cross sections with an ac Stark effect'. Opt. Lett. 13 354 (1988) with J Coutts and J Cooper.
 31. 'Alignment measurement in orbitally selective collision-induced fluorescence'. J Chem. Soc. Farady Trans. 285 925 (1989) with D M Segal.
 32. 'Two electron bound-free transitions in an intense field'. J Phys. B21 3083 (1988).
 33. 'Potential scattering of electrons in the presence of intense laser fields using the Kramers Henneberger transformation'. Phys. Rev. A (1988) with R Bhatt and B R M Piraux.
 34. Alignment measurements in orbitally selective collision-induced fluorescence'. J. Chem. Soc. Faraday Trans., 925 (1989) with D M Segal.
 35. 'Polarization-monitored collisional redistribution experiment in Hg ($^3P_1-^1S_0$) - Kr, 22 247 (1989) with D M Segal.
 36. 'Coherent pulse amplification in excimer laser amplifiers'. J. Mod. Opt. 36 975 (1989) with K E Hill and G H C New.
 37. 'Two-electron excitation and ionisation in intense laser field' J. Mod. Opt. 36 (1989) 925.
 38. 'Non-linear absorption of intense laser light by collective plasma excitations'. Phys. Fluids B2, 1015 (1990) with S C Rae.
 39. 'Photodissociation of KrF by intense ultra-short laser pulses'. J. Chem. Phys. 92 5885 (1990) with K E Hill and G H C New.
 40. 'Hg-Ar Collisions in a strong laser field: competition between intense field and collisional effects'. J. Phys. B23, L791-798 (1990) with S M R Young, D M Segal and X Chen.
 41. 'Ionisation of atoms in intense laser pulses using the Kramers-Henneberger transformation'. Phys. Rev. A42 3152 (1990) with V C Reed.
 42. 'Suppression of ionisation in strong laser fields'. Phys. Rev. Lett. 66 301 (1991) with P L Knight, V C Reed and B R M Piraux.
 43. 'Reflectivity of steep gradient plasmas in intense sub-picosecond laser plasmas'.

- Phys. Rev. A44 3835 (1991) with S C Rae.
44. 'The role of resonances and Quantum Mechanical interference in the generation of above threshold ionisation spectra'. Phys. Rev. A43 6217 (1991) with V C Reed.
 45. 'The effect of long range collisions between atoms on laser cooling' JOSA, **B**, 8 1592 (1991) with A M Smith.
 46. 'Suppression of Ionisation in super intense fields without dichotomy' Phys. Rev. Lett., 67 1415 (1991) with V C Reed and P L Knight.
 47. 'Photodissociation of Hg-Kr van der Waals molecules alignment effects' J. Chem. Phys., 95 8124 (1991) with Xiushan Chen and D M Segal.
 48. 'Calculation of the background emitted during high harmonic generation' Phys.Rev. A 45 3347 (1992) with V C Reed, P L Knight and J Cooper.
 49. 'An analytical study of long range interactions between atoms undergoing laser cooling' JOSAB 9 with A M Smith.
 50. 'The effect of diffusion on laser cooling of atom with long range interactions' JOSA, **B**, 9 (1992) with A M Smith.
 51. 'Possible production of Cold Plasmas through optical field induced ionisation' Phys.Rev. A 46 2077 (1992) with S C Rae.
 52. 'Detailed Simulations of plasma-induced spectral blueshifting' Phys.Rev. A 46 1084 (1992) with S C Rae.
 53. The influence of noise and angular dispersion during short pulse raman amplification' Optics Communications, 87 315 (1992) with K E Hill, P A Rogers and G H C New.
 54. 'Slow collisions between identical atoms in laser field: application of the Born and Markoff approximation to the system of moving atoms' Phys.Rev. A. 45 6555 (1992) with M Trippenbach, Bo Gao and J Cooper.
 55. 'Slow collisions between identical atoms in a laser field: The spectrum of redistributed light' Phys.Rev. A. 45 6555 (1992) with M Trippenbach, Bo Gao and J Cooper.
 56. 'The loss of harmonic generation in intense fields' Phys. Rev. A46 429 (1992) with V C Reed.
 57. 'Calculating the diffusion coefficient for laser cooling of atoms with long range collisions' Phys. Rev. A. 46, (1992) with A M Smith.

58. 'Semi classical theory of collision induced loss from optical traps' Phys. Rev. A. 7 (1992) with A M Smith and P S Julienne.
59. 'Alignment effects in the photodissociation of Hg-Kr van der Waals molecules' J.Chem.Phys. 97, (1992) with Xiushan Chen.
60. 'Collisional redistribution in Hg-Kr:Polarization of redistributed light' Phys. Rev., A47, 3128, (1993) with I M Bell and J C Quayle.
61. 'Harmonic generation in the KH stabilisation regime' Phys. Rev. A 47, p34. (1993) with V C Reed and P L Knight.
62. 'Calculations of high order harmonic generation in the strongly ionising regime' Phys. Rev. A 48, 2490 (1993) with S C Rae.
63. 'Harmonic generation and phase matching in the tunnelling limit' J. Phys. B 26 1509 (1993) with S C Rae.
64. 'Interferometric detection of optical Phase at the Heisenberg limit' Phys. Rev. Lett. 71, 1355, (1993) with M J Holland.
65. 'Resonances and alignment effects in Na - Ar fine structure changing half-collisions' Phys. Rev. A 47, 343, (1993) with X Chen.
66. 'Relativistic high harmonic generation' Europhysics Letters, 24, 539, (1993) with M Protopapas and P L Knight.
67. 'Spectral blue shifting of a femtosecond laser pulse propagating through a high-pressure gas' J. Opt. Soc. Am. B10, 1801 (1993) with S P LeBlanc, R Sauerbrey and S C Rae.
68. 'Dynamical effects in atom optics' Phys. Rev. A 49, 4726-4732 (1993) with P A Ruprecht and M J Holland.
69. 'Alignment of Hg-Ar van der Waals molecule photofragments following photodissociation' J. Chem. Phys. 99, 9608-9614 (1993) with I M Bell, E Takacs, X Chen and D M Segal.
70. 'Propagation of High-Order Harmonics through an Ionizing Gas' Osa Proceedings on Shortwavelength V: Physics with Intense Laser Pulses **17**: 132-136 (1993) with S C Rae.
71. 'Theory of interactions between laser-cooled atoms' Quantum Optics Vi **77**: 59-67 (1994), with M J Holland, and K A Suominen.
72. 'Quantal treatment of cold collisions in a laser field' Phys. Rev. Lett. 72, 2367 (1994) with M J Holland and K-A Suominen.

73. 'Phase development in two colour excitation of a model atom by super intense fields' Phys. Rev. A 49, 1495 (1994) with M Protopapas and P L Knight.
74. 'Resonance collisions between three-level systems in a laser field' Phys. Rev. A 49 2748 (1994) with D M Segal and M H Shah.
75. 'Excited state survival probabilities for cold collisions in a weak laser field' Phys. Rev. A 49, 3897-3902 (1994) with K-A Suominen, M J Holland and P S Julienne.
76. 'Cold collisions in a laser field: quantum Monte-Carlo treatment of radiative heating' Phys. Rev. A 50 1513-1530 (1994) with M J Holland and K-A Suominen.
77. 'Heating due to long-range photon exchange interactions between cold atoms' Phys. Rev. A 50 1479 (1994) with G Hillenbrand and C J Foot.
78. 'Generation and propagation of higher order harmonics in a rapidly ionising medium' Phys. Rev. A 50 , 1967 (1994) with S C Rae and J Cooper.
79. 'Saturation of harmonic generation in one and three dimensional atoms' Phys. Rev. A 50. 1946 (1994) with S C Rae and X Chen.
80. 'Spectral and spatial modifications to an intense laser pulse interacting with a dense argon gas' Optics Communications 110, 425 (1994) with M Ciarrocca, J P Marangos, D D Burgess, M H R Hutchinson, R A Smith and S C Rae.
81. 'Quantum theory of atoms interacting with photons 1: foundations'. Phys. Rev. A 50, 2207 (1994) with M Lewenstein, L You and J Cooper.
82. 'Loss from magneto-optical traps in strong laser fields'. Phys. Rev. A 50, R2826-2829 (1994) with Y B Band, I Tuvi, K-A Suominen and P S Julienne.
83. 'Pulse shape effects and blue shifting in the single atom harmonic generation from neutral species and ions'. Phys. Rev. A. 51, 1458, (1995) with J B Watson and A Sanpera.
84. 'Hyperfine structure effects in probing atomic alignment'. J. Chem. Phys. 102, 1889 (1995) with I M Bell and C J K Quayle.
85. 'Numerical solution of the nonlinear Schrödinger equation for small samples of trapped atoms'. Phys. Rev. A 51, 4704 (1995) with M Edwards.
86. 'Time dependent solutions of the nonlinear Schrödinger equation for Bose-Condensed trapped neutral atoms.' Phys. Rev. A, 51 4704 (1995).
87. 'Harmonic generation beyond the saturation intensity in helium'. Phys. Rev. A. 51, 3148 (1995) with P Jonsson, A Sanpera and J B Watson.
88. 'Angular momentum in harmonic generation and above threshold ionisation'. Phys. Rev. A. 51, 4824 (1995) with X Chen and A Sanpera.

89. 'Optical shielding of cold collisions'. Phys. Rev. A 51, 1446-1457 (1995) with K-A Suominen, M J Holland and P S Julienne.
90. 'The effect of scattered radiation on sub-Doppler cooling'. Phys. Rev. A. 52, 4763 (1995) with G Hillenbrand and C J Foot.
91. 'High intensity two-colour interactions in the tunnelling and stabilisation regime'. Phys. Rev. A 52, 4023 (1995) with M Protopapas, A Sanpera and P L Knight.
92. 'Quantum signatures in the stabilisation regime'. Phys. Rev. A 52, 4023 (1995) with C H Keitel, P L Knight and J B Watson.
93. 'Laser driven collisions between atoms in a Bose-Einstein condensed gas'. Physical Review Letters, **77**, 1416-1419 (1996) with P Julienne and K-A Suominen..
94. 'Spectral shifting by optical and collisional ionisation of an intense laser pulse in dense noble gases' Journal of the Optical Society of America B – Optical Physics, **13**, 794-804 with M Ciarrocca, J P Marangos and D D Burgess.
95. 'Properties of a Bose-Einstein condensate in an anisotropic harmonic potential'. Physical Review A, **53**, R1950-R1953 (1996) with M Edwards, R J Dodd, C W Clark, and P A Ruprecht.
96. 'Collective excitations of atomic Bose-Einstein condensates'. Phys. Rev. Lett., **77**, 1671-1674 (1996), with M Edwards, P A Ruprecht, R J Dodd and C W Clark.
97. 'Adiabatic transfer for atomic interferometry'. Physical Review A, **53**, 373-380, (1996) with P D Featonby, G S Summy, J L Martin, H Wu, K P Zetie, and C J Foot.
98. 'UV laser spectroscopy of HgAr in supersonic jet: a new determination of the interatomic potential' J. Chem. Phys., **104**, 7860-7865 (1996) with S J Lawrence, D N Stacey, and I M Bell.
99. 'Theory of an atom laser', Phys. Rev. A, **54**, R1757-1760 (1996) with M Holland, C Gardiner, J Cirac, P Zoller.
100. 'A quantitative study of the ionization induced refraction of picosecond laser pulses in gas targets' Phys. Rev. Lett. **76**, 1473-1476 (1996), with A J Mackinnon, M Borghesi, A Iwase, M Jones, G Pert, S Rae, and O Willi.
101. 'High order harmonics of the 248.6 nm KrF laser from Helium and Neon ions' Phys. Rev. A , **53**, R31-R34 (1996) with S G Preston, A Sanpera, M Zepf, W J Blyth, C G Smith, M H Key, M Naaki, D Neely and A Offenberger.
102. 'Role of off-resonant excitation in cold collisions in a strong laser field' Phys. Rev. A., **53**, R1220-R1223 (1996) with K A Suominen, P S Julienne.
103. 'Ultracold collisions and optical shielding in metastable xenon' Phys. Rev. A., **53**, 1678-1689. (1996) with K-A Suominen, P S Julienne, M Walhout, U Sterr, C Orzel, M Hoogerland and S L Rolston.

104. 'Harmonic generation from a coherent superposition of atomic states' Phys. Rev. A, **53**, R1962-R1965 (1996), with J B Watson, A Sanpera and X Chen.
105. 'Entropic measure of wave-packet spreading and ionization in laser-driven atoms'. Phys. Rev. A, **54**, 729-735 (1996) with J B Watson, C H Kietel, P L Knight
106. 'The role of attractive interactions on Bose-Einstein condensation' Phys. Rev. A, **54**, 661 (1996) with R J Dodd, M Edwards, C J Williams, C W Clark, M J Holland, P A Ruprecht.
107. 'The role of the off-resonant excitation in cold collisions in a strong laser field' Phys. Rev. A, Lett., 77, 1416, (1996) with K-A Suominen and P S Julienne.
108. 'Generalised man fields for Trapped Atomic Bose-Einstein Condensates'. J. Res. Nat. Inst. Stand. Tech., 101, 457, (1996) with N P Proukakis
109. 'Why a condensate can be thought of as having a definite phase'. J. Res. Nat. Inst. Stand. Tech., 101, 593 (1996) with S M Barnett and J A Vaccaro.
110. 'Theory of an output coupler for Bose-Einstein condensed atoms'. Phys. Rev. Lett., 78, 1607, (1997) with R J Ballagh and T F Scott
111. 'Solitary-wave solutions to nonlinear schrödinger equations'. Phys. Rev. A 55, 4338 (1997) with S A Morgan, R J Ballagh.
112. 'Two electron effects in ionization and harmonic generation from a model HE atom' J. J. Phys. **B**, 29, L619 (1996) with D G Lappas, A Sanpera, J B Watson, P L Knight, R Grobe and J H Eberly.
113. 'Wavepacket recollision and pulse shape effects in harmonic generation', Phys. Rev. **A**, 1224 (1997) with J B Watson, A Sanpera, P L Knight.
114. 'Non-sequential double ionisation in helium', Phys. Rev. Lett. 78, 1884, (1997) with J B Watson, A Sanpera, D G Lappas, P L Knight.
115. 'Atom optical elements for Bose-Einstein condensates', Phys. Rev. A, **56**, 3825-3831 (1997) with S Choi.
116. 'Trapped Bose-Einstein condensates at finite temperature: A two- gas model' Acta Physica Polonica A **93**(1): 45-53 (1998), with R J Dodd,, M Edwards and C W Clark.
117. 'Interacting Fermi gas in harmonic trap', Phys. Rev. A, **58**, 2427-2434 (1998) with G M Bruun.
118. 'Phenomenological damping in trapped atomic Bose-Einstein condensates', Phys. Rev. A, **57**, 4057-4060 (1998) with S Choi and S A Morgan,
119. 'Separated-path Ramsey atom interferometer', Phys. Rev. Lett., **81**, 495-499 (1998) with P D Featonby, G S Summy, C L Webb, R M Godun, M K Oberthaler, A C Wilson and C J Foot.

120. 'Gapless finite- T theory of collective modes of trapped gas', *Phys. Rev. Lett.*, **81**, 2198-2200 (1998) with D A W Hutchinson and R J Dodd.
121. 'Stimulated Raman molecule production in Bose-Einstein condensates', *Phys. Rev. A*, **58**, R797-R800 (1998) with P S Julienne, Y B Band and W C Stwalley.
122. 'Nonlinear mixing of quasiparticles in an inhomogeneous Bose condensate', *Phys. Rev. A*, **57**, 3818-3829 (1998) with S A Morgan, S Choi and M Edwards.
123. 'Comparison of gapless mean-field theories for trapped Bose-Einstein condensates', *Phys. Rev. A*, **58**, 2435-2445 (1998) with N P Proukakis, S A Morgan and S Choi.
124. 'Formation of fundamental structures in Bose-Einstein condensates', *J. Phys. B*, **31**, L329-L335 (1998) with T F Scott and R J Ballagh.
125. 'Quantum and semiclassical calculations of cold-atom collisions in light fields', *Phys. Rev. A*, **57**, 3724-3738 (1998), with K A Suominen, Y B Band, I Tuvi and P D Julienne.
126. 'Trapped Bose-Einstein condensates at finite temperature: A two- gas model', *Acta Physica Polonica A* **93**(1): 45-53, (1998) with R J Dodd, M Edwards and C W Clark.
127. 'Collective excitations of Bose-Einstein-condensed gases at finite temperatures', *Physical Review A* **57**(1): R32-R35, (1998), with R J Dodd, M Edwards, and C W Clark.
128. 'Observation of light-induced coherence loss in a caesium atomic fountain', *Journal of Physics B-Atomic Molecular and Optical Physics* **31**(3): 375-381, (1998) with P D Featonby C L Webb, G S Summy, C J Foot.
129. 'Gapless finite- T theory of collective modes of a trapped gas', *Physical Review Letters* **81**(11): 2198-2200 (1998) with D A W Hutchinson, and R J Dodd..
130. 'Microscopic treatment of binary interactions in the nonequilibrium dynamics of partially Bose-condensed trapped gases', *Physical Review A* **57**(2): 1230-1247 (1998), with N P Proukakis, and H T C Stoff.
131. 'Can harmonic generation cause non-sequential ionization', *Journal of Physics B-Atomic Molecular and Optical Physics* **31**(19): L841-L848, (1998), with A Sanpera, J B Watson, S E J Shaw, P L Knight and M Lewenstein.
132. 'BCS theory for trapped ultracold fermions'. *European Physical Journal D* **7**(3): 433-439 (1998) with G Bruun, Y Castin, and R Dum.
133. 'Ultracold collisions for Bose-Einstein condensation'. *Philosophical Transactions of the Royal Society of London Series a-Mathematical Physical and Engineering Sciences* **357**(1755): 1421-1439, (1999) with L S Butcher, D N Stacey, and C J Foot.
134. 'Coherent dynamics of vortex formation in trapped Bose-Einstein condensates', *Physical Review Letters* **83**(5): 895-898 (1999), with B M Caradoc-Davies, and R J Ballagh.

135. 'Phase standard for Bose-Einstein condensates', *Physical Review Letters* **82**(19): 3729-3733 (1999), with J A Dunningham.
136. 'Limits of the separated-path Ramsey atom interferometer', *Journal of Physics B-Atomic Molecular and Optical Physics* **32**(20): 5033-5045, (1999) with R M Godun, C L Webb, P D Featonby, M B d'Arcy, M K Oberthaler, G S Summy, and C J Foot.
137. 'How dark is a grey state?', *Optics Communications* **169**(1-6): 301-308, (1999), R M Godun, C L Webb, M K Oberthaler, G S Summy.
138. 'Efficiencies of adiabatic transfer in a multistate system'. *Physical Review A* **59**(5): 3775-3781 (1999).
139. 'Coherent output, stimulated quantum evaporation, and pair breaking in a trapped atomic Bose gas', *Physical Review Letters* **82**(6): 1079-1083, (1999) with Y Japha, S Choi, and Y B Band.
140. 'Exciting, cooling, and vortex trapping in a Bose-condensed gas'. *Physical Review A* **59**(3): 2085-2093, (1999) with R J Marshall, G H C New, and S Choi.
141. 'Observation of quantum accelerator modes'. *Physical Review Letters* **83**(22): 4447-4451, (1999) with M K Oberthaler, R M Godun, M B d'Arcy, and G S Summy.
142. 'Mean-field theory for excitations of trapped Bose condensates at finite temperatures', *Physical Review A* **59**(5): 3851-386, (1999) with M Rusch.
143. 'Measurement of Berry's phase using an atom interferometer', *Physical Review A* **60**(3): R1783-R1786, (1999), with C L Webb, R M Godun, G S Summy, M K Oberthaler, P D Featonby, and C J Foot.
144. 'An atom laser based on dark-state cooling: a detailed description'. *Journal of Physics B-Atomic Molecular and Optical Physics* **32**(15): 3669-3700, (1999) with H M Wiseman, and M J Collett.
145. 'Finite-temperature effects in Bose-Einstein condensates' *Modern Physics Letters B* **14**: 117-151 (2000).
146. 'Adiabatic output coupling of a Bose gas at finite temperatures - art. no. 063606', *Physical Review A* **6106**(6): 3606+, (2000), with S Choi, and Y Japha.
147. 'Establishment of phase between coupled Bose-Einstein condensates', *Journal of Physics B-Atomic Molecular and Optical Physics* **33**(19): 3807-3823, (2000), with J A Dunningham.
148. 'Phase resolution for Bose-Einstein condensates - art. no 065601', *Physical Review A* **6106**(6): 5601+, (2000), with J A Dunningham.
149. 'Quantum accelerator modes: A tool for atom optics - art. no. 013411'. *Physical*

- Review A **6201**(1): 3411-+, (2000) with R M Godun, M B d'Arcy, M K Oberthaler, and G S Summy.
150. 'Gapless mean-field theory of Bose-Einstein condensates'. *Journal of Physics B-Atomic Molecular and Optical Physics* **33**(19): 3825-3846, (2000), with D A W Hutchinson, R J Dodd, S A Morgan, M Rusch, E Zaremba, N P Proukakis, M Edwards and C W Clark.
 151. 'Second order theory of excitations in trapped Bose condensates at finite temperatures', *Physical Review Letters* **85**(23): 4844-4847, (2000), with M Rusch, S A Morgan and D A W Hutchinson.
 152. 'Double ionization of helium in an elliptically polarized laser field'. *Journal of Physics B-Atomic Molecular and Optical Physics* **33**(4): L103-L109, (2000), with J B Watson, and P L Knight.
 153. 'Interactions and entanglements in BECs', *Comptes Rendus De L Academie Des Sciences Serie Iv Physique Astrophysique* **2**(3): 399-406, (2001), with S Choi, M Davis, J A Dunningham, S A Morgan and M Rusch.
 154. 'Spatiotemporal interferometry for trapped atomic Bose-Einstein condensates - art. no. 065601', *Physical Review A* **6306**(6): 5601-+, (2001), with S Choi, O M Friesch, B Kneer and W P Schleich.
 155. 'Approaching classicality in quantum accelerator modes through decoherence - art. no. 056233'. *Physical Review E* **6405**(5): 6233-+, (2001), with M B d'Arcy, R M Godun, M K Oberthaler, G S Summy, and S A Gardiner.
 156. 'Simulations of bose fields at finite temperature - art. no. 160402', *Physical Review Letters* **8716**(16): 0402-+, (2001) with M J Davis, and S A Morgan.
 157. 'Proposals for creating Schrodinger cat states in Bose-Einstein condensates'. *Journal of Modern Optics* **48**(12): 1837-1853, (2001), with J A Dunningham.
 158. 'Squeezing and temperature measurement in Bose-Einstein condensates', J Rogel-Salazar, G H C New, S Choi and K Burnett, *J. Phys. B: At. Mol. Opt. Phys.* **34** No 23 (14 December 2001) 4617-4627.
 159. 'Relative number squeezing in Bose-Einstein condensates - art. no. 015601.', *Physical Review A* **6401**(1): 5601-+, (2001), with J A Dunningham, and M Edwards.
 160. 'Squeezing and temperature measurement in Bose-Einstein condensates' J Rogel-Salazar, G H C New, S Choi and K Burnett *J. Phys. B: At. Mol. Opt. Phys.* **34** No 23 (14 December 2001) 4617-4627.
 161. 'Dynamics of thermal Bose fields in the classical limit' M J Davis, R J Ballagh and K Burnett *J. Phys. B: At. Mol. Opt. Phys.* **34** No 22 (28 November 2001) 4487-4512.
 162. 'The Bogoliubov approach to number squeezing of atoms in an optical lattice' Keith

- Burnett, Mark Edwards, Charles W Clark and Martin Shotter, *J. Phys. B: At. Mol. Opt. Phys.* **35** No 7 (14 April 2002) 1671-1678.
163. 'Exciting relative number-squeezed particles from condensates using stimulated light scattering', D C Roberts, T Gasenzer and K Burnett, *J. Phys. B: At. Mol. Opt. Phys.* **35** No 5 (14 March 2002) L113-L118.
 164. 'Quantum non-demolition measurements using Bose-Einstein condensates, S Choi and K Burnett, *J. Phys. B: At. Mol. Opt. Phys.* **35** No 1 (14 January 2002) L43-L49.
 165. 'Microscopic quantum dynamics approach to the dilute condensed Bose gas'. Thorsten Köhler and Keith Burnett *Phys. Rev. A* **65**, 033601 (2002).
 166. 'Off-shell T matrices in one, two, and three dimensions' S. A. Morgan, M. D. Lee, and K. Burnett *Phys. Rev. A* **65**, 022706 (2002).
 167. 'Limitations of entanglement between photons and atoms coupled out from a Bose-Einstein condensate' T. Gasenzer, D. C. Roberts, and K. Burnett *Phys. Rev. A* **65**, 021605 (2002).
 168. 'The Bogoliubov approach to number squeezing of atoms in an optical lattice' Keith J. *Phys. B: At. Mol. Opt. Phys.* **35** No 7 (14 April 2002) 1671-1678 K Burnett, Mark Edwards, Charles W Clark and Martin Shotter.
 169. 'Exciting relative number-squeezed particles from condensates using stimulated light scattering' D C Roberts, T Gasenzer and K Burnett *J. Phys. B: At. Mol. Opt. Phys.* **35** No 5 (14 March 2002) L113-L117.
 170. 'Quantum non-demolition measurements using Bose-Einstein condensates' S Choi and K Burnett *J. Phys. B: At. Mol. Opt. Phys.* **35** No 1 (14 January 2002) L43-L49.
 171. 'Simulations of thermal Bose fields in the classical limit' M. J. Davis, S. A. Morgan, and K. Burnett *Phys. Rev. A* **66**, 053618 (2002).
 172. 'Interferometry below the Standard Quantum Limit with Bose-Einstein Condensates' J. A. Dunningham, K. Burnett, and Stephen M. Barnett *Phys. Rev. Lett.* **89**, 150401 (2002).
 173. 'Entanglement concentration in Bose-Einstein condensates' J. A. Dunningham, S. Bose, L. Henderson, V. Vedral, and K. Burnett *Phys. Rev. A* **65**, 064302 (2002).
 174. 'Energy-dependent scattering and the Gross-Pitaevskii equation in two-dimensional Bose-Einstein condensates' M. D. Lee, S. A. Morgan, M. J. Davis, and K. Burnett *Phys. Rev. A* **65**, 043617 (2002).
 175. 'Limitations of light delay and storage times in electromagnetically induced transparency experiments with condensates' D. C. Roberts, T. Gasenzer, and K. Burnett *Phys. Rev. A* **66**, 023801 (2002).

176. 'Squeezing and entanglement in quasiparticle excitations of trapped Bose-Einstein condensates' J. Rogel-Salazar, G. H. C. New, S. Choi, and K. Burnett *Phys. Rev. A* 65, 023601 (2002).
177. 'Phase diagram of bosonic atoms in two-color superlattices' Robert Roth and Keith Burnett *Phys. Rev. A* 68, 023604 (2003).
178. 'Probing States in the Mott Insulator Regime in the Case of Coherent Bosons Trapped in an Optical Lattice' D. C. Roberts and K. Burnett *Phys. Rev. Lett.* 90, 150401 (2003).
179. 'Superfluidity and interference pattern of ultracold bosons in optical lattices' R. Roth and K. Burnett *Phys. Rev. A* 67, 031602 (2003).
180. 'Microscopic theory of atom-molecule oscillations in a Bose-Einstein condensate' Thorsten Köhler, Thomas Gasenzer, and Keith Burnett *Phys. Rev. A* 67, 013601 (2003).
181. 'Bogoliubov approach to superfluidity of atoms in an optical lattice' Ana Maria Rey, Keith Burnett, Robert Roth, Mark Edwards, Carl J Williams and Charles W Clark *J.Phys. B: At. Mol. Opt. Phys.* **36** No 5 (14 March 2003) 825-841.
182. "Measurement-Induced Relative-Position Localization Through Entanglement" A V Rau, J A Dunningham, K Burnett *Science* 301, 1081 (2003)
183. "Long-range nature of Feshbach molecules in Bose-Einstein condensates." Kohler, T., Gasenzer, P.S. Julienne and K. Burnett. *Phys. Rev. Letters*, 91 (23): art. No.-230401 (2003)
184. "Quantitative test of thermal field theory for Bose-Einstein condensates." Morgan, S. A., M. Rusch, D. A. W. Hutchinson and K. Burnett. *Phys. Rev. Letters*, **91**(25). (2003)
185. "Measurement-induced relative-position localization through entanglement." Rau, A. V., J. A. Dunningham and K. Burnett. *Science* **301**(5636): 1081-1084. (2003)
186. "Correlated pair excitations in Bose-Einstein condensates in the presence of a Raman coupling." Rogel-Salazar, J., G. H. C. New and K. Burnett. *Journal of Optics B-Quantum and Semiclassical Optics* **5**(2): S90-S95. (2003).
187. "Ultracold bosonic atoms in two-colour superlattices." Roth, R. and K. Burnett. *Journal of Optics B-Quantum and Semiclassical Optics* **5**(2): S50-S54. (2003).
188. "Dynamic structure factor of ultracold Bose and Fermi gases in optical lattices." Roth, R. and K. Burnett. *Journal of Physics B-Atomic Molecular and Optical Physics* **37**(19): 3893-3907. (2004).
189. "Methods of quantum field theory for trapped Bose-Einstein condensates." Rogel-Salazar, J., S. Choi, G. H. C. New and K. Burnett. *Journal of Optics B-Quantum and Semiclassical Optics* **6**(9): R33-R59. (2004)

190. "Excitations of Bose-Einstein condensates in optical lattices" K. Braun-Munzinger, J. A. Dunningham, and K. Burnett *Phys. Rev. A* **69**, 053613 (2004)
191. "Sub-shot-noise-limited measurements with Bose-Einstein condensates" J. A. Dunningham and K. Burnett *Phys. Rev. A* **70**, 033601 (2004)
192. "Holland and Burnett Reply": Murray Holland and Keith Burnett *Phys. Rev. Lett.* **92**, 209302 (2004)
193. "Quantum phases of atomic boson-fermion mixtures in optical lattices" R. Roth and K. Burnett *Phys. Rev. A* **69**, 021601 (2004)
194. "Experimental observation of the tilting mode of an array of vortices in a dilute Bose-Einstein condensate." Smith, N. L., W. H. Heathcote, J. M. Krueger and C. J. Foot. *Physical Review Letters* **93**(8). (2004)
195. "Dynamic structure factor of ultracold Bose and Fermi gases in optical lattices" R. Roth and K. Burnett *J. Phys. B: At. Mol. Opt. Phys.* **37**, 3893 (2004)
196. "Transitivity of the relative localization of particles" J. A. Dunningham, A. V. Rau, K. Burnett. *Journal of Modern Optics* (2004)
197. "Optimized evaporative cooling using a dimple potential: an efficient route to Bose-Einstein condensation." Ma, Z. Y., C. J. Foot and S. L. Cornish. *Journal of Physics B-Atomic Molecular and Optical Physics* **37**(15): 3187-3195. (2004).
198. "Dynamic optical trap generation using FLC SLMs for the manipulation of cold atoms." Boyer, V., C. M. Chandrashekar, C. J. Foot and Z. J. Laczik. *Journal of Modern Optics* **51**(14): 2235-2240. (2004)
199. "Fermionic first for condensates." Goral, K. and K. Burnett. *Physics World* **17**(3): 23-24. (2004)
200. "Dynamics of correlations in atomic Bose-Einstein condensates." Goral, K., T. Kohler, T. Gasenzer and K. Burnett. *Journal of Modern Optics* **51**(12): 1731-1737. (2004)
201. "Comment on "Interferometric detection of optical phase shifts at the Heisenberg limit" -Reply." Holland, M. and K. Burnett. *Physical Review Letters* **92**(20). (2004)
202. "Ramsey interferometry with atoms and molecules: Two-body versus many-body phenomena" K. Góral, T. Köhler,¹ and K. Burnett *Phys. Rev. A* **71**, 023603 (2005)
203. "Quantum-mechanical cumulant dynamics near stable periodic orbits in phase space: Application to the classical-like dynamics of quantum accelerator modes." Bach, R., K. Burnett, M. B. d'Arcy and S. A. Gardiner. *Physical Review A* **71**(3). (2005)
204. "Bose-Einstein condensates and precision measurements." Dunningham, J., K.

- Burnett and W. D. Phillips. Philosophical Transactions of the Royal Society a-Mathematical Physical and Engineering Sciences **363**(1834): 2165-2175. (2005)
205. "From pedigree cats to fluffy-bunnies." Dunningham, J., A. Rau and K. Burnett Science **307**(5711): 872-875. (2005)
206. "Precision measurement scheme using a quantum interferometer." Kim, T., J. Dunningham and K. Burnett. Physical Review A **72**(5). (2005)
207. "The fundamental constants of physics, precision measurements and the base units of the SI - Preface." Quinn, T. and K. Burnett. Philosophical Transactions of the Royal Society a-Mathematical Physical and Engineering Sciences **363**(1834): 2099-2099. (2005)
208. "Introduction: The fundamental constants of physics, precision measurements and the base units of the SI." Quinn, T. and K. Burnett. Philosophical Transactions of the Royal Society a-Mathematical Physical and Engineering Sciences **363**(1834): 2101-2104. (2005)
209. "Conventional character of the BCS-BEC crossover in ultracold gases of K-40." Szymanska, M. H., K. Goral, T. Kohler and K. Burnett. Physical Review A **72**(1). (2005)
210. "Dynamics of the BCS-BEC crossover in a degenerate Fermi gas." Szymanska, M. H., B. D. Simons and K. Burnett. Physical Review Letters **94**(17). (2005)
211. "Quantum walks with entangled coins." Venegas-Andraca, S. E., J. L. Ball, K. Burnett and S. Bose. New Journal of Physics **7**. (2005)
212. "Intelligent design: the response." Steane, A., A. Briggs, K. Burnett, G. Dalto, P. Ewart, A. Peacocke, J. Wark and W. Phillips. Physics World **18**(12): 18-19. (2005)
213. "Creation of macroscopic superposition states from arrays of Bose-Einstein condensates." Dunningham, J. A., K. Burnett, R. Roth and W. D. Phillips. New Journal of Physics **8**. (2006)
214. "Macroscopic superpositions of superfluid flows." Hallwood, D. W., K. Burnett and J. Dunningham. New Journal of Physics **8**. (2006)
215. "Laser-driven particle accelerators: new sources of energetic particles and radiation - Introduction." Hooker, S. M., D. A. Jaroszynski and K. Burnett. Philosophical Transactions of the Royal Society a-Mathematical Physical and Engineering Sciences **364**(1840): 553-557. (2006)
216. "Quantum random walks using quantum accelerator modes." Ma, Z. Y., K. Burnett, M. B. d'Arcy and S. A. Gardiner. Physical Review A **73**(1). (2006)
217. "Superfluidity and binary correlations within clusters of fermions." Milstein, J. N. and

- K. Burnett *Journal of Physics B-Atomic Molecular and Optical Physics* **39**(8): 1965-1974. (2006)
218. Nunnenkamp, A., Rey, A. M., & Burnett, K. (2008). Generation of macroscopic superposition states in ring superlattices. *PHYSICAL REVIEW A*, 77 (2). Doi 10.1103/PhysRevA.77.023622
 219. Ng, H. T., & Burnett, K. (2008). Vacuum fluctuations induced entanglement between two mesoscopic systems. *NEW JOURNAL OF PHYSICS*, 10. doi:10.1088/1367-2630/10/12/123014
 220. Nunnenkamp, A., Rey, A. M., & Burnett, K. (2011). Superposition states of ultracold bosons in rotating rings with a realistic potential barrier. *PHYSICAL REVIEW A*, 84(5). doi: 10.1103/PhysRevA.84.053604
 221. Nunnenkamp, A., Rey, A. M., & Burnett, K. (2010). Strong correlations in quantum vortex nucleation of ultracold atomic gases. *PROCEEDINGS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES*, 466(2117), 1247-1263. doi:10.1098/rspa.2009.0621
 222. Douglas, J. S., & Burnett, K. (2010). Quantum imaging of spin states in optical lattices. *PHYS REV A*, 82(3), . doi:10.1103/PhysRevA.82.033434
 223. Douglas, J. S., & Burnett, K. (2011). Imaging of quantum Hall states in ultracold atomic gases. *PHYSICAL REVIEW A*, 84(5). doi:10.1103/PhysRevA.84.053608
 224. Douglas, J. S., & Burnett, K. (2010). Quantum imaging of spin states in optical lattices. *Physical Review A - Atomic, Molecular, and Optical Physics*, 82(3). doi:10.1103/PhysRevA.82.033434
 225. Douglas, J. S., & Burnett, K. (2011). Light scattering from ultracold atomic gases in optical lattices at finite temperature. *Physical Review A - Atomic, Molecular, and Optical Physics*, 84(3). doi:10.1103/PhysRevA.84.033637
 226. Douglas, J. S., & Burnett, K. (2011). Imaging of quantum Hall states in ultracold atomic gases. *Physical Review A - Atomic, Molecular, and Optical Physics*,84(5). doi:10.1103/PhysRevA.84.053608
 227. Douglas, J. S., & Burnett, K. (2012). Scattering-induced spatial superpositions in multiparticle localization. *Physical Review A - Atomic, Molecular, and Optical Physics*, 86(5). doi:10.1103/PhysRevA.86.052120

Review, and Commentary Articles

1. 'Collisional redistribution of weak radiation and the factorization approximation'.

- Comments Atom. Phys. 13 179-185 (1983).
2. 'Collisional redistribution of radiation'. Phys. Reports, vol. 118, no. 6 (1985).
 3. 'Multiphoton physics' J. Mod. Opt., 36, 811, (1989) with M H R Hutchinson.
 4. 'High resolution spectroscopy of atoms'. Science Progress, 72 351 (1989) with D N Stacey.
 5. 'Atoms in ultra intense laser fields' J. Phys. B. 26, 561 , (1993) with P L Knight and V C Reed.
 6. 'Theory of Collisions between laser cooled atoms' Advances in Atomic, Molecular and Optical Physics 30, 141 (1994) with A M Smith and P S Julienne.
 7. 'Collision course for atomic clocks'. Physics World 7 (Nov. 1994) 27-28 with K-A Suominen.
 8. 'An intimate gathering of Bosons'. Science 269, 182 (July 1995). (Short review)
 9. 'Cold atoms see the light.' Physics World 8 (1995), 42-47 with P Julienne, P Lett and K-A Suominen. (Short review)
 10. 'Bose-Einstein Condensation with Evaporatively Cooled Atoms' Contemporary Physics, **37**, 1-14 (1996)
 11. 'Bose Condensed Trapped Alkali Atoms' The International Journal of Modern Physics B., **10**, 1-9 1996).
 12. 'Theory of Bose-Einstein condensation for trapped atoms' Philosophical Transactions of the Royal Society of London Series a-Mathematical Physical and Engineering Sciences **355**(1733): 2235-2245 (1997) with N P Proukakis.
 13. 'Bose-Einstein condensation - Go forth and multiply', Science **282**(5394), 1657-1658, (1998).
 14. Evaluating physics in the UK', Physics World, **10**, 57, (1997) with L Brady.
 15. 'Tailor-made condensates', Nature **392**(6672), 125-125 (1997)
 16. 'Multielectron response to intense laser fields', Philosophical Transactions of the Royal Society of London Series a-Mathematical Physical and Engineering Sciences **356**(1736), 317-328, (1998) with J B Watson, A Sanpera and P L Knight.
 17. 'The theory of Bose-Einstein condensation of dilute gases'. Physics Today **52**(12): 37-42 (1998) with M Edwards and C W Clark.
 18. 'Ultracold interactions and mean-field theory of Bose-Einstein condensates' Bose-Einstein Condensation in Atomic Gases **140**: 265-285 (1999).

19. 'Finite-temperature effects in Bose-Einstein condensates', (2000), Modern Physics Letters B **14**: 117-151.
20. 'Laser-matter interactions - It takes two electrons to tango', Nature **405**(6787): 631-633, (2000).
21. 'Prospects for atom interferometry' Contemporary Physics, 42 (2), 77-95, (2001), with R M Godun, M B D'Arcy, and G S Summy (Review).
22. 'Quantum Encounters of the Cold Kind' with P S Julienne P D Lett and C J Williams, Nature Insight article Vol 416, no 6877 (2002).
23. " From Pedigree Cats to Fluffy Bunnies" . Einstein's Legacy edition Science 7th February 2005.