

# Bibliography

- [1] M. H. ANDERSON, J. R. ENSHER, M. R. MATTHEWS, C. E. WEIMAN, AND E. A. CORNELL. Observation of Bose-Einstein condensation in a dilute atomic vapor. *Science*, 269:198, 1995.
- [2] K. B. DAVIS, M.-O. MEWES, M. R. ANDREWS, N. J. VAN DRUTEN, D. S. DURFEE, D. M. KURN, AND W. KETTERLE. Bose-Einstein condensation in a gas of sodium atoms. *Phys. Rev. Lett.*, 75:3969, 1995.
- [3] See the WWW page <http://amo.phy.gasou.edu/bec.html/>.
- [4] STEVEN CHU. The manipulation of neutral particles. *Rev. Mod. Phys.*, 70(3):685, July 1998.
- [5] CLAUDE N. COHEN-TANNOUJJI. Manipulating atoms with photons. *Rev. Mod. Phys.*, 70(3):707, July 1998.
- [6] WILLIAM D. PHILLIPS. Laser cooling and trapping of neutral atoms. *Rev. Mod. Phys.*, 70(3):721, July 1998.
- [7] C. J. MYATT, E. A. BURT, R. W. GHRIST, E. A. CORNELL, AND C. E. WIEMAN. Production of two overlapping Bose-Einstein condensates by sympathetic cooling. *Phys. Rev. Lett.*, 78(4):586, January 1997.
- [8] M. R. MATTHEWS, D. S. HALL, D. S. JIN, J. R. ENSHER, C. E. WIEMAN, E. A. CORNELL, F. DALFOVO, C. MINNITI, AND S. STRINGARI. Dynamical response of a Bose-Einstein condensate to a discontinuous change in internal state. *Phys. Rev. Lett.*, 81(2):243, July 1998.
- [9] D. S. HALL, J. R. ENSHER, D. S. JIN, M. R. MATTHEWS, C. E. WIEMAN, AND E. A. CORNELL. Recent experiments with Bose-condensed gases at JILA. *Proc. SPIE*, 3270:98, April 1998.
- [10] D. S. HALL, M. R. MATTHEWS, J. R. ENSHER, C. E. WIEMAN, AND E. A. CORNELL. The dynamics of component separation in a binary mixture of Bose-Einstein condensates. *Phys. Rev. Lett.*, 81(8):1539, August 1998.
- [11] D. S. HALL, M. R. MATTHEWS, C. E. WIEMAN, AND E. A. CORNELL. Measurements of relative phase in two-component Bose-Einstein condensates. *Phys. Rev. Lett.*, 81(8):1543, August 1998.

## BIBLIOGRAPHY

---

- [12] E. A. CORNELL, D. S. HALL, M. R. MATTHEWS, AND C. E. WIEMAN. Having it both ways: Distinguishable yet phase-coherent mixtures of Bose-Einstein condensates. *J. Low Temp. Phys.*, 113:151, 1998.
- [13] M. R. MATTHEWS, B. P. ANDERSON, P. C. HALJAN, D. S. HALL, J. E. WILLIAMS, M. J. HOLLAND, C. E. WIEMAN, AND E. A. CORNELL. Watching a superfluid untwist itself: Recurrence of Rabi oscillations in a Bose-Einstein condensate. *cond-mat/9906288*.
- [14] M. R. MATTHEWS, B. P. ANDERSON, P. C. HALJAN, D. S. HALL, C. E. WIEMAN, AND E. A. CORNELL. *unpublished*.
- [15] M. R. ANDREWS, C. G. TOWNSEND, H.-J. MIESNER, D. S. DURFEE, D. M. KURN, AND W. KETTERLE. Observation of interference between two Bose-Einstein condensates. *Science*, 275(0):637, January 1997.
- [16] A. LEGGET. Low temperature physics, superconductivity and superfluidity. In P. Davies, editor, *The New Physics*. Cambridge University Press, Cambridge, 1989.
- [17] M. O. MEWES, M. R. ANDREWS, D. M. KURN, D. S. DURFEE, C. G. TOWNSEND, AND W. KETTERLE. Output coupler for Bose-Einstein condensed atoms. *Phys. Rev. Lett.*, 78(4):582, 1997.
- [18] E. W. HAGLEY, L. DENG, M. KOZUMA, J. WEN, K. HELMERSON, S. L. ROLSTON, AND W. D. PHILLIPS. A well-collimated quasi-continuous atom laser. *Science*, 283:1706, March 1999.
- [19] I. BLOCH, T. W. HANSCH, AND T. ESSLINGER. Atom laser with a cw output coupler. *Phys. Rev. Lett.*, 82:3008, 1999.
- [20] C. W. GARDINER AND P. ZOLLER. Quantum kinetic theory: A quantum kinetic master equation for condensation of a weakly interacting Bose gas without a trapping potential. *Phys. Rev. A*, 55:2902, 1997.
- [21] C. W. GARDINER AND P. ZOLLER. Quantum kinetic theory III. Quantum kinetic master equation for strongly condensed trapped systems. *Phys. Rev. A*, 58:536, 1998.
- [22] S. GIORGINI. Damping in dilute Bose gases: A mean-field approach. *Phys. Rev. A*, 57(4):2949, April 1998.
- [23] A. MINGUZZI, M. L. CHIOFALO, AND M. P. TOSI. Generalized quantum hydrodynamics of a trapped dilute Bose gas. *Phys. Lett. A*, 236:237, 1997.
- [24] E. ZAREMBA, T. NIKUNI, AND A. GRIFFIN. Dynamics of trapped Bose gases at finite temperature. *cond-mat/9903029*.
- [25] M. RUSCH AND K. BURNETT. Mean-field theory for excitations of trapped Bose condensates at finite temperatures. *Phys. Rev. A*, 59:3851, 1999.
- [26] H. T. C. STOOFF. Coherent versus incoherent dynamics during Bose-Einstein condensation in atomic gases. *J. of Low Temp. Phys.*, 114:11, 1999.
- [27] R. WALSER, J. WILLIAMS, J. COOPER, AND M. HOLLAND. Quantum kinetic theory for a condensed bosonic gas. *Phys. Rev. A*, 59:3878, 1999.

- 
- [28] D. M. STAMPER-KURN, M. R. ANDREWS, A. P. CHIKKATUR, S. INOUE, H.-J. MIESNER, J. STENGER, AND W. KETTERLE. Optical confinement of a Bose-Einstein condensate. *Phys. Rev. Lett.*, 80(10):2027, March 1998.
- [29] T.-L. HO AND V.B. SHENOY. Binary mixtures of Bose condensates of alkali atoms. *Phys. Rev. Lett.*, 77:3276, 1996.
- [30] C.K. LAW, H. PU, N.P. BIGELOW, AND J.H. EBERLY. Stability signature in two-species dilute Bose-Einstein condensates. *Phys. Rev. Lett.*, 79:3105, 1997.
- [31] B.D. ESRY, C.H. GREENE, J.P. BURKE, AND J.L. BOHN. Hartree-Fock theory for double condensates. *Phys. Rev. Lett.*, 78:3594, 1997.
- [32] H. PU AND N.P. BIGELOW. Properties of two-species Bose-condensates. *Phys. Rev. Lett.*, 80:1130, 1998.
- [33] E. A. CORNELL, J. R. ENSHER, AND C. E. WIEMAN. Experiments in dilute atomic Bose-Einstein condensation. *Enrico Fermi summer school lectures, 1998*.
- [34] W. KETTERLE, D.S. DURFEE, AND D.M. STAMPER-KURN. Making, probing and understanding Bose-Einstein condensates. *Enrico Fermi summer school lectures, 1998*.
- [35] A. GRIFFIN. Conserving and gapless approximations for an inhomogeneous Bose gas at finite temperatures. *Phys. Rev. A*, 53:9341, 1996.
- [36] N. P. PROUKAKIS, S. A. MORGAN, S. CHOI, AND K. BURNETT. Comparison of gapless mean-field theories for trapped Bose-Einstein condensates. *Phys. Rev. A*, 58:2435, 1998.
- [37] S. CHAPMAN AND T. G. COWLING. *The Mathematical Theory of Non-Uniform Gases*. Cambridge University Press, London, 1960.
- [38] A.I. AKHIEZER AND S.V. PELETMINSKII. *Statistical Methods of Statistical Physics*. Pergamon Press, Oxford, 1996.
- [39] D. ZUBAREV, V. MOROZOV, AND G. ROPKE. *Statistical Mechanics of Nonequilibrium Processes*, volume 1. Akademie Verlag, Berlin, 1996.
- [40] J. W. KANE AND L. P. KADANOFF. Green's functions and superfluid hydrodynamics. *Journal of Mathematical Physics*, 6, 1965.
- [41] L. P. KADANOFF AND G. BAYM. *Quantum statistical mechanics: Green's function methods in equilibrium and nonequilibrium problems*. W.A. Benjamin, New York, 1962.
- [42] G.C. WICK. The evaluation of the collision matrix. *Phys. Rev.*, 80:268, 1950.
- [43] A. VAGLICA, C. LEONARDI, AND G. VETRI. Generalized Wick's theorem for a bosonic field in the squeezed vacuum. *J. of Mod. Opt.*, 37:1487, 1990.
- [44] A.K. RAJAGOPAL AND E.C.G. SUDARSHAN. Some generalizations of the Marcinkiewicz theorem and its implications to certain approximation schemes in many-particle physics. *Phys. Rev. A*, 10:1852, 1974.

## BIBLIOGRAPHY

---

- [45] D. ZUBAREV, V. MOROZOV, AND G. ROPKE. *Statistical Mechanics of Nonequilibrium Processes*, volume 2. Akademie Verlag, Berlin, 1996.
- [46] K. HUANG AND C. N. YANG. Quantum-mechanical many-body problem with hard-sphere interaction. *Phys. Rev.*, 105:767, 1957.
- [47] E. W. SMITH, J. COOPER, AND C. R. VIDAL. Unified Classical Path treatment of Stark broadening in plasmas. *Phys. Rev.*, 185:140, 1969.
- [48] N. P. PROUKAKIS AND K. BURNETT. Generalized mean fields for trapped atomic Bose-Einstein condensates. *J. of Res. Natl. Inst. Stand. Technol.*, 101:457, 1996.
- [49] M.J. BIJLSMA AND H. T. C. STOOF. Collisionless modes of a trapped Bose gas. *cond-mat/9902065*.
- [50] E. P. GROSS. Structure of a quantized vortex in boson systems. *Nuovo Cimento*, 20:454, 1961.
- [51] L. P. PITAEVSKII. Vortex lines in an imperfect Bose gas. *Sov. Phys. JETP*, 13:451, 1961.
- [52] B.D. ESRY. Hartree-Fock theory for Bose-Einstein condensates and the inclusion of correlation effects. *Phys. Rev. A*, 55:1147, 1997.
- [53] F. DALFOVO, S. GIORGINI, L. P. PITAEVSKII, AND S. STRINGARI. Theory of Bose-Einstein condensation in trapped gases. *Rev. of Mod. Phys.*, 71:463, 1999.
- [54] F. DALFOVO, L. PITAEVSKII, AND S. STRINGARI. Order parameter at the boundary of a trapped Bose gas. *Phys. Rev. A*, 54:4213, 1996.
- [55] G. BAYM AND C.J. PETHICK. Ground-state properties of magnetically trapped Bose-condensed rubidium gas. *Phys. Rev. Lett.*, 76:6, 1996.
- [56] A. FETTER. Theory of a dilute low-temperature trapped Bose condensate. *Enrico Fermi summer school lectures, 1998*.
- [57] E. LUNDH, C.J. PETHICK, AND H. SMITH. Vortices in Bose-Einstein-condensed atomic clouds. *Phys. Rev. A*, 58:4816, 1998.
- [58] D. S. JIN, J. R. ENSHER, M. R. MATTHEWS, C. E. WIEMAN, AND E. A. CORNELL. Collective excitations of a Bose-Einstein condensate in a dilute gas. *Phys. Rev. Lett.*, 77(3):420, July 1996.
- [59] M.-O. MEWES, M. R. ANDREWS, N. J. VAN DRUTEN, D. S. DURFEE, C. G. TOWNSEND, AND W. KETTERLE. Collective excitations of a Bose-Einstein condensate in a magnetic trap. *Phys. Rev. Lett.*, 77(6):988, August 1996.
- [60] D. S. JIN, M. R. MATTHEWS, J. R. ENSHER, C. E. WIEMAN, AND E. A. CORNELL. Temperature-dependent damping and frequency shifts in collective excitations of a dilute Bose-Einstein condensate. *Phys. Rev. Lett.*, 78(5):764, February 1997.

- 
- [61] D. M. STAMPER-KURN, H.-J. MIESNER, S. INOUE, M. R. ANDREWS, AND W. KETTERLE. Collisionless and hydrodynamic excitations of a Bose-Einstein condensate. *Phys. Rev. Lett.*, 81(3):500, July 1998.
- [62] P.A. RUPRECHT, M. EDWARDS, K. BURNETT, AND C.W. CLARK. Probing the linear and nonlinear excitations of Bose-condensed neutral atoms in a trap. *Phys. Rev. A*, 54:4178, 1996.
- [63] A.L. FETTER. Nonuniform states of an imperfect Bose gas. *Annals of Physics*, 70:67, 1972.
- [64] R.J. DODD, K. BURNETT, M. EDWARDS, AND C.W. CLARK. Excitation spectroscopy of vortex states in dilute Bose-Einstein condensed gases. *Phys. Rev. A*, 56:587, 1997.
- [65] A.A. SVIDZINSKY AND A.L. FETTER. Normal modes of a vortex in a trapped Bose-Einstein condensate. *Phys. Rev. A*, 58:3168, 1998.
- [66] D. A. BUTTS AND D. S. ROKHSAR. Predicting signatures of rotating Bose-Einstein condensates. *Nature*, 397:327, 1999.
- [67] D.L. FEDER, C.W. CLARK, AND B.I. SCHNEIDER. Vortex stability of interacting Bose-Einstein condensates confined in anisotropic harmonic traps. *cond-mat/9904269*.
- [68] A.A. SVIDZINSKY AND A.L. FETTER. Stability of a vortex in a trapped Bose-Einstein condensate. *cond-mat/9811348*.
- [69] B.M. CARADOC-DAVIES, R.J. BALLAGH, AND K. BURNETT. Coherent dynamics of vortex formation in trapped Bose-Einstein condensates. *cond-mat/9902092*.
- [70] E. CORNELL. private communication.
- [71] S.C. BENJAMIN, L. QUIROGA, AND N.F. JOHNSON. Analytic results for the linear and nonlinear response of atoms in a trap with a model interaction. *Phys. Rev. A*, 54:4309, 1996.
- [72] M. BREWCZYK, K. RZAZEWSKI, AND C.W. CLARK. Strong-field driving of a dilute atomic Bose-Einstein condensate. *Phys. Rev. A*, 57:488, 1998.
- [73] S.A. MORGAN, S. CHOI, K. BURNETT, AND M. EDWARDS. Nonlinear mixing of quasiparticles in an inhomogeneous Bose condensate. *Phys. Rev. A*, 57:3818, 1998.
- [74] R. DUM, J.I. CIRAC, M. LEWENSTEIN, AND P. ZOLLER. Creation of dark solitons and vortices in Bose-Einstein condensates. *Phys. Rev. Lett.*, 80:2972, 1998.
- [75] C. COHEN-TANNOUJJI, J. DUPONT-ROC, AND G. GRYNBERG. *Atom-photon interactions*. John Wiley & Sons, Inc., New York, 1992.
- [76] T. R. GENTILE, B. J. HUGHEY, D. KLEPPNER, AND T. W. DUCAS. Experimental study of one- and two-photon Rabi oscillations. *Phys. Rev. A*, 40:5103, 1989.
- [77] P.B. BLAKIE, R.J. BALLAGH, AND C.W. GARDINER. Dressed states of a two component Bose-Einstein condensate. *cond-mat/9902110*.

## BIBLIOGRAPHY

---

- [78] A. BARONE AND G. PATERNO. *Physics and Applications of the Josephson Effect*. Wiley, New York, 1982.
- [79] S. FUJITA AND S. GODOY. *Quantum Statistical Theory of Superconductivity*. Plenum Press, New York, 1996.
- [80] P. L. TAYLOR. *A Quantum Approach to the Solid State*. Prentice Hall, New Jersey, 1970.
- [81] V.V. SCHMIDT. *The Physics of Superconductors*. Springer, Berlin, 1997.
- [82] M. TINKHAM. *Introduction to Superconductivity*. McGraw-Hill, Inc., New York, 1996.
- [83] J. JAVANAINEN. Oscillatory exchange of atoms between traps containing Bose condensates. *Phys. Rev. Lett.*, 57:3164, 1986.
- [84] M. JACK, M. COLLETT, AND D. WALLS. Coherent quantum tunneling between two Bose-Einstein condensates. *Phys. Rev. A*, 54:R4625, 1996.
- [85] G. MILBURN, J. CORNEY, E. WRIGHT, AND D. WALLS. Quantum dynamics of an atomic Bose-Einstein condensate in a double-well potential. *Phys. Rev. A*, 55:4318, 1997.
- [86] J. RUOSTEKOSKI AND D. WALLS. Nondestructive optical measurement of relative phase between two Bose-Einstein condensates. *Phys. Rev. A*, 56:2996, 1997.
- [87] I. ZAPATA, F. SOLS, AND A. LEGGETT. Josephson effect between trapped Bose-Einstein condensates. *Phys. Rev. A*, 57:R28, 1998.
- [88] A. J. LEGGETT. How can we use low-temperature systems to shed light on questions of more general interest. *J. Low Temp. Phys.*, 110:719, 1998.
- [89] A. SMERZI, S. FANTONI, S. GIOVANAZZI, AND S. SHENOY. Quantum coherent atomic tunneling between two trapped Bose-Einstein condensates. *Phys. Rev. Lett.*, 79(25):4950, 1997.
- [90] S. RAGHAVAN, A. SMERZI, S. FANTONI, AND S.R. SHENOY. Coherent oscillations between two weakly coupled Bose-Einstein condensates: Josephson effects,  $\pi$  oscillations, and macroscopic quantum self-trapping. *Phys. Rev. A*, 59:620, 1999.
- [91] I. MARINO, S. RAGHAVAN, S. FANTONI, S. R. SHENOY, AND A. SMERZI. Bose-condensate tunneling dynamics: Momentum-shortened pendulum with damping. *Phys. Rev. A*, 60(1):487, July 1999.
- [92] P. VILLAIN AND M. LEWENSTEIN. Dephasing of Josephson oscillations between two coupled Bose-Einstein condensates. *Phys. Rev. A*, 59:2250, 1999.
- [93] P. OHBERG AND S. STENHOLM. Internal Josephson effect in trapped double condensates. *Phys. Rev. A*, 59:3890, 1999.
- [94] N.I. AKHIEZER. *Elements of the Theory of Elliptic Functions*. American Mathematical Society, Providence, 1990.

- 
- [95] P. L. WALKER. *Elliptic Functions: A Constructive Approach*. Wiley and Sons, England, 1996.
- [96] A. G. GREENHILL. *The Applications of Elliptic Functions*. Dover, New York, 1959.
- [97] P. S. JULIENNE, F. H. MIES, E. TIESINGA, AND C. J. WILLIAMS. Collisional stability of double Bose condensates. *Phys. Rev. Lett.*, 78(10):1880, March 1997.
- [98] S. J. J. M. F. KOKKELMANS, H. M. J. M BOESTEN, AND B. J. VERHAAR. Role of collisions in creation of overlapping Bose condensates. *Phys. Rev. A*, 55(3):R1589, March 1997.
- [99] JAMES P. BURKE, JR., JOHN L. BOHN, B. D. ESRY, AND CHRIS H. GREENE. Impact of the  $^{87}\text{Rb}$  singlet scattering length on suppressing inelastic collisions. *Phys. Rev. A*, 55(4):R2511, April 1997.
- [100] J. STENGER, S. INOUE, D. M. STAMPER-KURN, H.-J. MIESNER, A. P. CHIKKATUR, AND W. KETTERLE. Spin domains in ground-state Bose-Einstein condensates. *Nature*, 396:345, November 1999.
- [101] B.D. ESRY AND C. H. GREENE. Low-lying excitations of double Bose-Einstein condensates. *Phys. Rev. A*, 57:1265, 1998.
- [102] A. SINATRA, P.O. FEDICHEV, Y. CASTIN, J. DALIBARD, AND G.V. SHLYAPNIKOV. Dynamics of two interacting Bose-Einstein condensates. *Phys. Rev. Lett.*, 82:251, 1999.
- [103] N. RAMSEY. *Molecular Beams*. Clarendon Press, Oxford, 1956.
- [104] A. ESCHMANN, R.J. BALLAGH, AND B.M. CARADOC-DAVIES. Formation of Ramsey fringes in double Bose-Einstein condensates. *cond-mat/9903013*.
- [105] T.-L. HO. Vortices and instatons in ferromagnetic Bose gas and spin-1/2 Bose gas. *unpublished*.
- [106] A. MESSIAH. *Quantum Mechanics*, volume 2. John Wiley and Sons, New York, 1966.
- [107] K.-P. MARZLIN AND W. ZHANG. Vortex coupler for atomic Bose-Einstein condensates. *Phys. Rev. Lett.*, 79:4728, 1997.
- [108] E.L. BOLDA AND D.F. WALLS. Creation of vortices in a Bose-Einstein condensate by a raman technique. *Phys. Lett. A*, 246:32, 1998.
- [109] O. LUITEN, M. REYNOLDS, AND J. WALRAVEN. Kinetic theory of the evaporative cooling of a trapped gas. *Phys. Rev. A*, 53(1):382, 1996.
- [110] W. KETTERLE AND N. J. VAN DRUTEN. Evaporative cooling of trapped atoms. In *Advances in Atomic, Molecular, and Optical Physics*, vol. 37, page 181, New York, 1996. Academic Press.
- [111] R. DUM, P. ZOLLER, AND H. RITSCH. Monte-Carlo simulation of the atomic master equation for spontaneous emission. *Phys. Rev. A*, 45:4879, 1992.

## BIBLIOGRAPHY

---

- [112] C. W. GARDINER, A. S. PARKINS, AND P. ZOLLER. Wave-function quantum stochastic differential-equations and quantum-jump simulation methods. *Phys. Rev. A*, 46:4363, 1992.
- [113] R. DUM, A. S. PARKINS, P. ZOLLER, AND C. W. GARDINER. Monte-Carlo simulations of master-equations in quantum optics for vacuum. *Phys. Rev. A*, 46:4382, 1992.
- [114] J. DALIBARD, Y. CASTIN, AND K. MØLMER. Wave-function approach to dissipative processes in quantum optics. *Phys. Rev. Lett.*, 68:580, 1992.
- [115] K. MOLMBER, Y. CASTIN, AND J. DALIBARD. Monte-Carlo wave-function method in quantum optics. *J. Opt. Soc. Am. B*, 3:524, 1993.
- [116] H. J. CARMICHAEL. *An Open Systems Approach to Quantum Optics*. Springer-Verlag, Berlin, 1993.
- [117] N. GISIN AND I. C. PERCIVAL. Wave-function approach to dissipative processes—Are there quantum jumps? *Phys. Lett. A*, 167:315, 1992.
- [118] M. HOLLAND, J. WILLIAMS, K. COAKLEY, AND J. COOPER. Trajectory simulation of kinetic equations for classical systems. *Quantum Semiclass. Opt.*, 8(3):571, 1996.
- [119] W. H. LOUISELL. *Quantum Statistical Properties of Radiation*. Wiley, New York, 1973.
- [120] J. P. BLAIZOT AND G. RIPKA. *Quantum Theory of Finite Systems*. MIT Press, Cambridge, USA, 1986.
- [121] D. JAKSCH, C. W. GARDINER, AND P. ZOLLER. Quantum kinetic theory 2. Simulation of the quantum boltzmann master equation. *Phys. Rev. A*, 56:575, 1997.
- [122] I. W. BUSBRIDGE. Some integrals involving Hermite polynomials. *London Mathematical Society Journal*, 23:135, 1948.
- [123] S. GIORGINI, L. P. PITAEVSKII, AND S. STRINGARI. Condensate fraction and critical temperature of a trapped interacting Bose gas. *Phys. Rev. A*, 54(6):R4633, December 1996.
- [124] W. KETTERLE AND N. J. VAN DRUTEN. Bose-Einstein condensation of a finite number of particles trapped in one or three dimensions. *Phys. Rev. A*, 54:656, 1996.
- [125] D.W. SNOKE AND J.P. WOLFE. Population-dynamics of a Bose-gas near saturation. *Phys. Rev. B*, 39:4030, 1989.
- [126] M. HOLLAND, J. WILLIAMS, AND J. COOPER. Bose-Einstein condensation: Kinetic evolution obtained from simulated trajectories. *Phys. Rev. A*, 55(5):3670, 1997.
- [127] C. A. SACKETT, C. C. BRADLEY, AND R. G. HULET. Optimization of evaporative cooling. *Phys. Rev. A*, 55(5):3797, 1997.
- [128] KIRSTINE BERG-SØRENSEN. Kinetics for evaporative cooling of a trapped gas. *Phys. Rev. A*, 55(2):1281, 1997.

## BIBLIOGRAPHY

---

- [129] M. HOLLAND, K. BURNETT, C. GARDINER, J. I. CIRAC, AND P. ZOLLER. Theory of an atom laser. *Phys. Rev. A*, 54:R1757, 1996.
- [130] H. WISEMAN, A. MARTINS, AND D. WALLS. An atom laser based on evaporative cooling. *Quantum Semiclass. Opt.*, 8:737, 1996.
- [131] R. J. BALLAGH, K. BURNETT, AND T. F. SCOTT. Theory of an output coupler for Bose-Einstein condensed atoms. *Phys. Rev. Lett.*, 78(9):1607, 1997.
- [132] J. J. HOPE. Theory of input and output of atoms from an atomic trap. *Phys. Rev. A*, 55(4):R2531, 1997.
- [133] W. KETTERLE AND HANS-JOACHIM MIESNER. Coherence properties of Bose condensates and atom lasers.
- [134] E. CORNELL, C. MONROE, AND C. WIEMAN. Multiply loaded, ac magnetic trap for neutral atoms. *Phys. Rev. Lett.*, 67(18):2439, 1991.
- [135] C. J. MYATT, N. R. NEWBURY, R. W. GHRIST, S. LOUTZENHISER, AND C. E. WIEMAN. Multiply loaded magneto-optical trap. *Opt. Lett.*, 21:290, 1996.
- [136] C. G. TOWNSEND, N. H. EDWARDS, C. J. COOPER, K. P. ZETIE, C. J. FOOT, A. M. STEANE, P. SZRIFTGISER, H. PERRIN, AND J. DALIBARD. Phase-space density in the magneto-optical trap. *Phys. Rev. A*, 52(2):1423, 1995.
- [137] E. A. BURT, R. W. GHRIST, C. J. MYATT, M. J. HOLLAND, E. A. CORNELL, AND C. E. WIEMAN. Coherence, correlations, and collisions: What one learns about Bose-Einstein condensates from their decay. *Phys. Rev. Lett.*, 79(3):337, 1997.
- [138] C. W. GARDINER, P. ZOLLER, R. J. BALLAGH, AND M. J. DAVIS. Kinetics of Bose-Einstein condensation in a trap. *Phys. Rev. Lett.*, 79(10):1793, September 1997.
- [139] A. L. GARCIA. *Numerical Methods for Physics*. Prentice Hall, New Jersey, 1994.
- [140] N. J. GIORDANO. *Computational Physics*. Prentice Hall, New Jersey, 1997.
- [141] W. H. PRESS, S. A. TEUKOLSKY, W. T. VETTERLING, AND B. P. FLANNERY. *Numerical Recipes in C*. Cambridge University Press, Cambridge, 1992.
- [142] F. J. VESELY. *Computational Physics: An Introduction*. Plenum Press, New York, 1994.
- [143] A. ROUHI AND J. WRIGHT. Spectral implementation of a new operator splitting method for solving partial differential equations. *Computers in Physics*, 9:554, 1995.
- [144] M. R. HERMANN AND J. A. FLECK. Split-operator spectral method for solving the time-dependent schrodinger equation in spherical coordinates. *Phys. Rev. A*, 38:6000, 1988.
- [145] M.J. HOLLAND, D.S. JIN, M.L. CHIOFALO, AND J. COOPER. Emergence of interaction effects in Bose-Einstein condensation. *Phys. Rev. Lett.*, 78:3801, 1997.

## BIBLIOGRAPHY

---

- [146] B. D. ESRY. *Many-Body Effects in Bose-Einstein Condensates of Dilute Atomic Gases*. PhD thesis, University of Colorado, 1997.
- [147] G. ARFKEN. *Mathematical Methods for Physicists, 3rd ed.* Academic Press, San Diego, 1985.