

Bibliography

- [1] M. H. Anderson *et al.*, *Science* **269**, 198 (1995).
- [2] C. C. Bradley, C. A. Sackett, J. J. Tollett, and R. G. Hulet, *Phys. Rev. Lett.* **75**, 1687 (1995).
- [3] K. B. Davis *et al.*, *Phys. Rev. Lett.* **75**, 3969 (1995).
- [4] B. DeMarco and D. S. Jin, *Science* **285**, 1703 (1999).
- [5] J. Anglin and W. Ketterle, *Nature* **416**, 211 (2002).
- [6] F. Schreck *et al.*, *Phys. Rev. Lett.* **87**, 080403 (2001).
- [7] A. G. Truscott *et al.*, *Science* **291**, 2570 (2001).
- [8] S. R. Granada, M. E. Gehm, K. M. O'Hara, and J. E. Thomas, *Phys. Rev. Lett.* **88**, 120405 (2002).
- [9] Z. Hadzibabic *et al.*, *Phys. Rev. Lett.* **88**, 160401 (2002).
- [10] G. Roati, F. Riboli, G. Modugno, and M. Inguscio, *Phys. Rev. Lett.* **89**, 150403 (2002).
- [11] S. Inouye *et al.*, *Nature* **392**, 151 (1998).
- [12] P. Courteille *et al.*, *Phys. Rev. Lett.* **81**, 69 (1998).
- [13] J. L. Roberts *et al.*, *Phys. Rev. Lett.* **81**, 5109 (1998).
- [14] V. Vuletic, A. J. Kerman, C. Chin, and S. Chu, *Phys. Rev. Lett.* **82**, 1406 (1999).
- [15] T. Loftus *et al.*, *Phys. Rev. Lett.* **88**, 173201 (2002).
- [16] K. Dieckmann *et al.*, *Phys. Rev. Lett.* **89**, 203201 (2002).
- [17] T. Bourdel *et al.*, *Phys. Rev. Lett.* **91**, 020402 (2003).
- [18] S. Jochim *et al.*, *Phys. Rev. Lett.* **89**, 273202 (2002).
- [19] E. A. Donley, N. R. Claussen, S. T. Thompson, and C. E. Wieman, *Nature* **417**, 529 (2002).

- [20] S. Dürr, T. Volz, A. Marte, and G. Rempe, *Phys. Rev. Lett.* **92**, 020406 (2004).
- [21] J. Cubizolles *et al.*, *Phys. Rev. Lett.* **91**, 240401 (2003).
- [22] S. Jochim *et al.*, *Phys. Rev. Lett.* **91**, 240402 (2003).
- [23] K. E. Strecker, G. B. Partridge, and R. G. Hulet, *Phys. Rev. Lett.* **91**, 080406 (2003).
- [24] K. Xu *et al.*, *Phys. Rev. Lett.* **91**, 210402 (2003).
- [25] M. Greiner, C. A. Regal, and D. S. Jin, *Nature* **426**, 537 (2003).
- [26] M. W. Zwierlein *et al.*, *Phys. Rev. Lett.* **91**, 250401 (2003).
- [27] S. Jochim *et al.*, *Science* **302**, 2101 (2003).
- [28] C. A. Regal, M. Greiner, and D. S. Jin, *Phys. Rev. Lett.* **92**, 040403 (2004).
- [29] M. Zwierlein *et al.*, cond-mat/0403049 (unpublished).
- [30] H. Feshbach, *Ann. Phys.* **5**, 357 (1958).
- [31] H. Feshbach, *Theoretical Nuclear Physics* (Wiley, New York, 1992).
- [32] J. R. Taylor, *Scattering Theory* (Wiley, New York, 1972).
- [33] A. J. Moerdijk, B. J. Verhaar, and A. Axelsson, *Phys. Rev. A* **51**, 4852 (1998).
- [34] S. J. J. M. F. Kokkelmans, B. J. Verhaar, and K. Gibble, *Phys. Rev. Lett.* **81**, 951 (1998).
- [35] P. J. Leo, E. Tiesinga, and P. S. Julienne, *Phys. Rev. Lett.* **81**, 1389 (1998).
- [36] E. G. M. van Kempen, S. J. J. M. F. Kokkelmans, D. J. Heinzen, and B. J. Verhaar, *Phys. Rev. Lett.* **81**, 951 (1998).
- [37] S. J. J. M. F. Kokkelman *et al.*, *Phys. Rev. A* **65**, 053617 (2002).
- [38] S. Kokkelmans and B. J. Verhaar, the calculation is based on the analysis of the lithium interactions as described in [123]. An alternative analysis has been described in [124]. (unpublished).
- [39] E. A. Donley *et al.*, *Nature* **412**, 295 (2001).
- [40] R. A. Duine and H. T. C. Stoof, *Phys. Rev. Lett.* **86**, 2204 (2001).
- [41] L. Santos and G. V. Shlyapnikov, *Phys. Rev. A* **66**, 011602 (2002).
- [42] H. Saito and M. Ueda, *Phys. Rev. A* **65**, 033624 (2002).
- [43] C. M. Savage, N. P. Robins, and J. J. Hope, *Phys. Rev. A* **67**, 014304 (2003).
- [44] G. S. Jeon, S. W. Rhee, and D. J. Thouless, *Phys. Rev. A* **66**, 011603 (2002).

- [45] J. N. Milstein, C. Menotti, and M. J. Holland, *New Journal of Physics* **5**, 52. 1 (2003).
- [46] S. J. J. M. F. Kokkelmans and M. J. Holland, *Phys. Rev. Lett.* **89**, 180401 (2002).
- [47] M. Mackie, K. A. Suominen, and J. Javanainen, *Phys. Rev. Lett.* **89**, 180403 (2002).
- [48] T. Köhler, T. Gasenzer, and K. Burnett, *Phys. Rev. A* **67**, 013601 (2003).
- [49] M. L. Chiofalo, S. J. J. M. F. Kokkelmans, J. N. Milstein, and M. J. Holland, *Phys. Rev. Lett.* **88**, 090402 (2002).
- [50] E. Timmermans *et al.*, *Phys. Rev. Lett.* **83**, 2691 (1999).
- [51] M. Holland, J. Park, and R. Walser, *Phys. Rev. Lett.* **86**, 1915 (2001).
- [52] J. Ranninger and S. Robaszkiewicz, *Phys. Rev. B* **53**, 468 (1985).
- [53] R. Friedberg and T. D. Lee, *Phys. Rev. B* **40**, 6745 (1989).
- [54] J. P. Blaizot and G. Ripka, *Quantum theory of finite systems* (MIT Press, Cambridge, Massachusetts, 1986).
- [55] C. W. Gardiner and P. Zoller, *Quantum noise* (Springer-Verlag, Germany, 2000).
- [56] J. Bardeen, L. N. Cooper, and J. R. Schrieffer, *Phys. Rev.* **108**, 1175 (1957).
- [57] L. N. Cooper, *Phys. Rev.* **104**, 1189 (1956).
- [58] M. Tinkham, *Introduction to superconductivity* (McGraw Hill, New York, 1980).
- [59] J. R. Schrieffer, *Theory of Superconductivity*, 3rd ed. (Perseus Books, Reading, MA, 1983).
- [60] W. P. Zhang, C. A. Sackett, and R. G. Hulet, *Phys. Rev. A* **60**, 504 (1999).
- [61] F. Weig and W. Zwerger, *Europhys. Lett.* **49**, 282 (2000).
- [62] P. Törma and P. Zoller, *Phys. Rev. Lett.* **85**, 487 (2000).
- [63] M. Farine, P. Schuck, and X. Vinas, *Phys. Rev. A* **62**, 013608 (2000).
- [64] A. Minguzzi, G. Ferrari, and Y. Castin, *Eur. Phys. J. D* **17**, 49 (2001).
- [65] A. Minguzzi and M. P. Tosi, *Phys. Rev. A* **63**, 023609 (2001).
- [66] M. A. Baranov and D. S. Petrov, *Phys. Rev. A* **62**, 041601 (2000).
- [67] H. T. C. Stoof, M. Houbiers, C. A. Sackett, and R. G. Hulet, *Phys. Rev. Lett.* **76**, 10 (1996).
- [68] M. Houbiers and H. T. Stoof, *Phys. Rev. A* **59**, 1556 (1999).
- [69] R. Combescot, *Phys. Rev. Lett.* **83**, 3766 (1999).

- [70] G. Bruun, Y. Castin, and R. Dum, *Eur. Phys. J. D.* **7**, 433 (1999).
- [71] H. Heiselberg, C. J. Pethick, H. Smith, and L. Viverit, *Phys. Rev. Lett.* **85**, 2418 (2000).
- [72] M. Holland, S. J. J. M. F. Kokkelmans, R. Walser, and M. L. Chiofalo, *Phys. Rev. Lett.* **87**, 120406 (2001).
- [73] J. L. Bohn, *Phys. Rev. A* **61**, 053409 (2000).
- [74] L. P. Gorkov and T. K. Melik-Barkhudarov, *J. Exptl. Theoret. Phys.* **40**, 1452 (1961).
- [75] V. Bagnato, D. E. Pritchard, and D. Kleppner, *Phys. Rev. A* **35**, 4534 (1987).
- [76] K. Molmer, *Phys. Rev. Lett.* **80**, 1804 (1998).
- [77] M. R. Schafroth, J. M. Blatt, and S. T. Butler, *Helv. Phys. Acta.* **30**, 93 (1957).
- [78] M. R. Schafroth, *Phys. Rev.* **111**, 72 (1958).
- [79] J. M. Blatt, *Prog. Theoret. Phys. (Kyoto)* **27**, 1137 (1962).
- [80] D. M. Eagles, *Phys. Rev.* **186**, 456 (1969).
- [81] A. J. Leggett, in Modern Trends in the Theory of Condensed Matter (Springer-Verlag, Berlin, 1980), pp. 13–27.
- [82] P. Nozières and S. Schmitt-Rink, *J. Low Temp. Phys.* **59**, 195 (1985).
- [83] M. Randeria, in Bose Einstein Condensation, edited by A. Griffin, D. Snoke, and S. Stringari (Cambridge Univ. Press, Cambridge, 1995), pp. 355–92.
- [84] J. N. Milstein, S. J. J. M. F. Kokkelmans, and M. J. Holland, *Phys. Rev. A* **66**, 043604 (2002).
- [85] A. A. Abrikosov, L. P. Gorkov, and I. E. Dzyaloshinski, Methods of quantum field theory in statistical physics (Dover Publications, New York, 1963).
- [86] V. N. Popov, Functional integrals and collective excitations (Cambridge University Press, New York, NY, 1987).
- [87] G. D. Mahan, Many-particle physics (Plenum Press, New York, 1990).
- [88] C. A. R. S. de Melo, M. Randeria, and J. R. Engelbrecht, *Phys. Rev. Lett.* **71**, 3202 (1993).
- [89] R. G. Newton, Scattering theory of waves and particles (McGraw-Hill, New York, 1996).
- [90] J. O. Sofo and C. A. Balseiro, *Phys. Rev. B* **45**, 8197 (1992).
- [91] J. Serene, *Phys. Rev. B* **40**, 10873 (1989).
- [92] L. P. Kadanoff and P. C. Martin, *Phys. Rev.* **124**, 670 (1961).

- [93] B. Janko, J. Maly, and K. Levin, *Phys. Rev. B* **56**, R11407 (1997).
- [94] Q. J. Chen, I. Kosztin, B. Janko, and K. Levin, *Phys. Rev. Lett.* **81**, 4708 (1998).
- [95] J. Maly, B. Janko, and K. Levin, *Phys. Rev. B* **59**, 1354 (1999).
- [96] R. Haussmann, *Phys. Rev. B* **49**, 12975 (1994).
- [97] J. Stajic *et al.*, cond-mat/0309329 (unpublished).
- [98] A. L. Fetter and J. D. Walecka, Quantum theory of Many-Particle Systems (Dover Publications, New York, 2003).
- [99] U. Fano, *Phys. Rev.* **124**, 1866 (1961).
- [100] J. Maly, B. Janko, and K. Levin, *Physica C* **321**, 113 (1999).
- [101] Y. Ohashi and A. Griffin, *Phys. Rev. Lett.* **89**, 130402 (2002).
- [102] L. Viverit, S. Giorgini, L. Pitaevskii, and S. Stringari, *Phys. Rev. A* **69**, 013607 (2004).
- [103] K. von Klitzing, G. Dorda, and M. Pepper, *Phys. Rev. Lett.* **45**, 494 (1980).
- [104] Z. F. Ezawa, Quantum Hall Effects (World Scientific, River Edge, NJ, 2000).
- [105] D. C. Tsui, H. L. Stormer, and A. C. Gossard, *Phys. Rev. Lett.* **48**, 1559 (1982).
- [106] R. B. Laughlin, *Phys. Rev. Lett.* **50**, 1395 (1983).
- [107] J. K. Jain, *Phys. Rev. Lett.* **63**, 199 (1989).
- [108] S. C. Zhang, T. H. Hansson, and S. Kivelson, *Phys. Rev. Lett.* **62**, 82 (1989).
- [109] M. R. Matthews *et al.*, *Phys. Rev. Lett.* **83**, 2498 (1999).
- [110] J. R. Abo-Shaeer, C. Raman, J. M. Vogels, and W. Ketterle, *Science* **292**, 476 (2001).
- [111] P. Engels, I. Coddington, P. C. Haljan, and E. A. Cornell, *Phys. Rev. Lett.* **89**, 100403 (2002).
- [112] N. K. Wilkin, J. M. F. Gunn, and R. A. Smith, *Phys. Rev. Lett.* **80**, 2265 (1998).
- [113] N. K. Wilkin and J. M. F. Gunn, *Phys. Rev. Lett.* **84**, 6 (2000).
- [114] B. Paredes, P. Fedichev, J. I. Cirac, and P. Zoller, *Phys. Rev. Lett.* **87**, 010402 (2001).
- [115] F. D. M. Haldane and E. H. Rezayi, *Phys. Rev. Lett.* **60**, 956 (1988).
- [116] S. Bhongale, J. N. Milstein, and M. J. Holland, *Phys. Rev. A* (2004).
- [117] P. A. M. Dirac, The Principles of Quantum Mechanics (Clarendon Press, Oxford, 1958).

- [118] T. Morinari, Phys. Rev. B **62**, 15903 (2000).
- [119] N. Read, Phys. Rev. Lett. **62**, 86 (1989).
- [120] G. Moore and N. Read, Nucl. Phys. B **360**, 362 (1991).
- [121] J. Goldwin, S. B. Papp, B. DeMarco, and D. S. Jin, Phys. Rev. A **65**, (2002).
- [122] K. M. O'Hara *et al.*, Science **298**, 2179 (2002).
- [123] F. A. van Abeelen, B. J. Verhaar, and A. J. Moerdijk, Phys. Rev. A **55**, 4377 (1997).
- [124] E. R. I. Abraham *et al.*, Phys. Rev. A **55**, R3299 (1997).
- [125] M. E. Peskin and D. V. Schroeder, An introduction to quantum field theory (Perseus Books, Cambridge, MA, 1995).
- [126] S. Hassani, Foundations of mathematical physics (Allyn and Bacon, Needham Heights, MA, 1991).