

Bibliography

- [1] B. Alberts, D. Bray, J. Lewis, M. Raff, K. Roberts and J. D. Watson, *Molecular Biology of the Cell* (Garland Publishing Comp., New York, 1983).
- [2] S. Leibler in *Statistical Mechanics of Membranes and Surfaces* (World Scientific, Singapore, 1989).
- [3] S.J. Singer and G. L. Nicolson, *Science* **175**, 720 (1972).
- [4] J. des Cloizeaux and G. Jannink, *Polymers in Solution* (Clarendon Press, Oxford, 1990).
- [5] P. G. de Gennes, *Scaling Concepts in Polymer Physics* (Cornell University Press, Ithaca, NY, 1979).
- [6] M. J. Bowick and A. Travesset, *The Statistical Mechanics of Membranes*, arXiv:cond-mat/0002038 (2000).
- [7] M. Kardar and D. R. Nelson, *Phys. Rev. Lett.* **58**, 12 (1987); *Phys. Rev. A* **38**, 966 (1988).
- [8] J. A. Aronowitz and T. C. Lubensky, *Europhys. Lett.* **4**, 395 (1987).
- [9] S. F. Edwards, *Proc. Phys. Soc. London* **85**, 613 (1965).
- [10] J. des Cloizeaux, *J. Phys. France* **42**, 635 (1981).
- [11] B. Duplantier, *J. Stat. Phys.* **54**, 581 (1989).
- [12] P. G. de Gennes, *Phys. Lett.* **38 A**, 339 (1972).
- [13] K. J. Wiese, *Polymerized Membranes, a Review*, Habilitations-Schrift Universität Essen (1999).

- [14] D. Nelson in *Statistical Mechanics of Membranes and Surfaces* (World Scientific, Singapore, 1989).
- [15] J. M. Kosterlitz and D. J. Thouless, *J. Phys. C* **5**, 124 (1972); *J. Phys. C* **6** 1181 (1973).
- [16] D. R. Nelson and L. Peliti, *J. Physique* **48**, 1085 (1987).
- [17] H. S. Seung and D. R. Nelson, *Phys. Rev. A* **38**, 1005 (1988).
- [18] L. Peliti and S. Leibler, *Phys. Rev. Lett.* **56**, 1609 (1985).
- [19] P. B. Canham, *J. Theor. Biol.* **26**, 61 (1970).
- [20] W. Helfrich, *Z. Naturforsch.* **28c**, 693 (1973).
- [21] F. David, E. Gutter and L. Peliti, *J. Physique* **48**, 2059 (1987).
- [22] F. David in *Statistical Mechanics of Membranes and Surfaces* (World Scientific, Singapore, 1989).
- [23] E. A. Evans, *Biophys. J.* **14**, 923 (1974).
- [24] E. Evans and D. Needham, *J. Phys. Chem.* **91**, 4219 (1987).
- [25] P. G. de Gennes and C. Taupin, *J. Phys. Chem.* **86**, 2294 (1982).
- [26] H. P. Duwe, J. Käs and E. Sackmann, *J. Phys. France* **51**, 945 (1990).
- [27] M. Mutz and W. Helfrich, *J. Phys. France* **51**, 991 (1990).
- [28] D. A. Huse and S. Leibler, *J. Phys. (Paris)* **49**, 605 (1988).
- [29] E. Browicz, *Zbl. Med. Wiss.* **28**, 625 (1890).
- [30] B. A. Dubrovin, A. T. Fomenko and S. P. Novikov, *Modern Geometry - Methods and Applications - Part I* (Springer Verlag, NY, 1985).
- [31] M. P. do Carmo, *Differential Geometry of Curves and Surfaces* (Prentice Hall, 1976).
- [32] A. M. Polyakov, *Gauge Fields and Strings* (Harwood Academic Publishers, Chur, 1987).

- [33] K. Fujikawa, Phys. Rev. D **23** 2262 (1981); S. Hawking, Comm. Math. Phys. **55** 133 (1987).
- [34] O. Alvarez, Nucl. Phys. B **216** 125 (1983).
- [35] A. M. Polyakov, Phys. Lett. B **103** 207 (1981).
- [36] D. Friedan, in *Recent Advances in Field Theory and Statistical Mechanics*, Les Houches 1982, ed. J. B. Zuber and R. Stora (North-Holland, Amsterdam, 1984).
- [37] W. Helfrich, J. Phys. (Paris) **46**, 1263 (1985).
- [38] W. Helfrich, J. Phys. (Paris) **48**, 285 (1987).
- [39] D. Förster, Europhys. Lett. **4**, 65 (1987).
- [40] L. Peliti and S. Leibler, Phys. Rev. Lett. **54**, 1690 (1985).
- [41] D. Förster, Phys. Lett. A **114**, 115 (1986).
- [42] H. Kleinert, Phys. Lett. A **114**, 263 (1986).
- [43] H. Kleinert, J. Stat. Phys. **56**, 227 (1989).
- [44] G. Gompper and D. M. Kroll, J. Phys. I France **6**, 1305 (1996).
- [45] W. Helfrich, Eur. Phys. J B **1**, 481 (1998); H. A. Pinnow and W. Helfrich, *Effect of Thermal Undulations on the Bending Elasticity and Spontaneous Curvature of Fluid Membranes*, Berlin preprint (1998).
- [46] S. Ami and H. Kleinert, Phys. Lett. A **120**, 207 (1987).
- [47] F. David and S. Leibler, J. Phys. II France **1**, 959 (1991).
- [48] W. Cai, T. C. Lubensky, P. Nelson, and T. Powers, J. Phys. II France **4**, 931 (1994).
- [49] T. Y. Cao and S. S. Schweber, Synthese **97** (1993); in *Renormalization*, edited by L. M. Brown (Springer-Verlag, Berlin, 1993).
- [50] J. F. Donoghue, Phys. Rev. D **50**, 3874 (1994); e-print gr-qc/9512024 (1995).

- [51] F. David, *Europhys. Lett.* **6**, 603 (1988).
- [52] M. E. S. Borelli, *Estudo de Flutuações Térmicas em Membranas Utilizando Teoria de Campos*, Ms. Thesis, Universidade de São Paulo (1996).
- [53] C. M. Fraser, *Z. Phys. C* **28**, 101 (1985).
- [54] R. P. Feynman, *Rev. Mod. Phys.* **20**, 367 (1948).
- [55] H. Kleinert, *Path Integrals in Quantum Mechanics, Statistics and Polymer Physics* (World Scientific, Singapore, 1995).
- [56] M. E. S. Borelli and H. Kleinert, *Self-consistent effective action for quantum particle with space-dependent mass*, Berlin preprint, arXiv:quant-ph/0006135 (2000).
- [57] K. Goeke and P.-G. Reinhard, *Ann. of Phys.* **112** 328 (1978).
- [58] M. E. S. Borelli, H. Kleinert and A. M. J. Schakel, *Phys. Lett. A* **253** 239 (1999).
- [59] J. A. M. Vermaseren, FORM Version 1, software freely available from [ftp.nikhef.nl](ftp://ftp.nikhef.nl/pub/form) in `/pub/form`.
- [60] F. David, *Phys. Lett. B* **102**, 193 (1981).
- [61] M. E. S. Borelli, H. Kleinert and A. M. J. Schakel, *Phys. Lett. A* **267**, 201 (2000).
- [62] A. T. van Urk, W. H. Keeson and H. K. Onnes, *Proc. K. Akad. Amsterdam* **28** 958(1925); J. F. Allen and A. D. Misener, *Proc. Cambridge Phil. Soc.* **34** 299 (1938); D. R. Lovejoy, *Canad. J. Phys.* **33** 49 (1955); F. Dafolvo, A. Latri, L. Pricaupenko, S. Stringari and J. Treiner, *Phys. Rev. B* **52** 1193 (1995).
- [63] B. N. Eselson, V. G. Ivantsov and A. D. Shvets, *Soviet Phys. JETP* **17** 330 (1963); K. R. Atkins and Y. Narahara, *Phys. Rev. A* **138** 437 (1965); A. F. Andreev, *Soviet Phys. JETP* **23** 939 (1966).
- [64] S. V. Pereverzev, A. Loshak, S. Backhaus, J. C. Davis, and R. E. Packard, *Nature* **388**, 449 (1997).

- [65] R. W. Simmonds, A. Loshak, A. Marchenkov, S. Backhaus, S. Pereversev, S. Vitale, J. C. Davis, and R. E. Packard, *Phys. Rev. Lett.* **81**, 1247 (1998).
- [66] H. Kleinert, *Smectic-Nematic Phase Transition as Wrinkling Transition in a Stack of Membranes*, Berlin preprint (1989), <http://www.physik.fu-berlin.de/~kleinert/173>.
- [67] G. Foltin, *Phys. Rev. E* **49** 5243 (1994).
- [68] K. G. Wilson, *Rev. Mod. Phys.* **47**, 773 (1975).
- [69] N. D. Mermin and H. Wagner, *Phys. Rev. Lett.* **17**, 1133 (1969).
- [70] I. Gradshteyn and I. M. Ryzhik, *Table of Integrals, Series and Products* (Academic Press, Boston, 1980).
- [71] D. Schmeltzer, *Phys. Rev. B* **32**, 7512 (1985).
- [72] D. O'Connor and C. R. Stephens, *Nucl. Phys. B* **360**, 297 (1991).
- [73] M. E. S. Borelli and H. Kleinert, *Decrumpling Membranes by Quantum Effects*, Berlin preprint, arXiv:cond-mat/0003362 (2000).
- [74] A. M. Polyakov, *Nucl. Phys. B* **268**, 406 (1987).
- [75] F. Alonso and D. Espriu, *Nucl. Phys. B* **283**, 393 (1987).
- [76] P. Olesen and S. Yang, *Nucl. Phys. B* **283**, 73 (1987).
- [77] H. Kleinert, *Phys. Lett. B* **189**, 187 (1987); *Phys. Rev. Lett.* **58**, 1915 (1987).
- [78] F. David and E. Gitter, *Nucl. Phys. B* **295**, 332 (1988).
- [79] M. C. Diamantini and H. Kleinert *Smoothing Transition of Rough Surfactant Surfaces*, Berlin preprint, arXiv:cond-mat/9806077 (1998).
- [80] M. C. Diamantini, H. Kleinert and C. A. Trugenberger, *Phys. Rev. Lett.* **82**, 267 (1999).
- [81] M. C. Diamantini, H. Kleinert and C. A. Trugenberger, *Floppy Membranes*, Berlin preprint, arXiv:cond-mat/9903021 (1999).

- [82] W. Helfrich, *Z. Naturforsch.* **33a**, 305 (1978).
- [83] M. E. S. Borelli, H. Kleinert and A.M.J. Schakel, *Vertical Melting of a Stack of Membranes*, Berlin preprint, arXiv:cond-mat/0004432 (2000).
- [84] P. G. de Gennes, *J. Phys. (Paris), Colloque* **4**, 65 (1969).
- [85] W. Janke and H. Kleinert, *Phys. Rev. Lett.* **58**, 145 (1987).
- [86] F. Nallet, D. Roux, and J. Prost, *Phys. Rev. Lett.* **62** 276 (1989); *J. Phys. France* **50** 3147 (1989).
- [87] H. Kleinert, *Phys. Lett. A* **53**, 130 (1988); S. Ami and H. Kleinert, *Phys. Lett. A* **120**, 207 (1987), <http://www.physik.fu-berlin.de/~kleinert/157>.
- [88] M. E. S. Borelli and H. Kleinert, *Phases of a stack of membranes in a large number of dimensions of configuration space*, Berlin preprint, arXiv:cond-mat/0005084 (2000).
- [89] P. G. de Gennes, *The Physics of Liquid Crystals* (Oxford University Press, London, 1974).
- [90] R. Lipowsky, in *Structure and Dynamics of Membranes*, Vol. 1B of *Handbook of Biological Physics*, ed. by R. Lipowsky and E. Sackmann (North-Holland, Amsterdam, 1995).
- [91] A. Caillé, *C. R. Acad. Sci. Ser. B* **274**, 981 (1972).
- [92] P. M. Chaikan and T. C. Lubensky, *Principles of Condensed Matter Physics*. (Cambridge Press, New York, 1995).
- [93] C. R. Safinya, D. Roux, G. S. Smith, S. K. Sinha, P. Dimon, N. A. Clark, and A. M. Bellocq, *Phys. Rev. Lett.* **57**, 2718 (1986).
- [94] M. Abramowitz and I. A. Segun, *Handbook of Mathematical Functions* (Dover Publications Inc., New York, 1965).