

List of publications of Lech Longa

(Papers indicated with \odot have been presented at conferences or at universities abroad in form of invited seminars;

publications in conference proceedings of less than one-page are not included in the list.)

1. **A. Fuliński and L. Longa,**
“One-dimensional Model with Rotational and Liquid Crystalline Phase Transitions”
J. Stat. Phys. **21**, 635-647 (1979).
2. \odot **L. Longa and A. M. Oleś,**
“Rigorous properties of the two-dimensional Ising model with periodically distributed frustration”
J. Phys. **A13**, 1031-1042 (1980)
 - Presented at the 5th EPS General Conference : Trends in Physics, Istanbul (1981).
3. \odot **L. Longa,**
“Critical temperature for random, planar model with frustration”
Physica, **103A**, 633-635 (1980).
4. **L. Longa,**
“Phase Transitions in Simple systems with rotational Degrees of Freedom”,
Acta Phys. Pol. **A57**, 667-678 (1980).
5. **L. Longa,**
“ ”Chain Approximation for Systems with Orientational Degrees of Freedom”
PhD thesis, Jagellonian University (1981).
6. **L. Longa and J. Konior,**
“Exact Results for Some 2D- Ising models with periodically distributed impurities”
Acta Phys. Pol. **A59**, 223-225 (1981).
7. **L. Longa,**
“Chain version of molecular field approximation for systems with rotational degrees of freedom. General Theory”
Acta Phys. Pol. **A60**, 497-529 (1981).
8. **L. Longa,**
“Chain Version of Molecular Field Approximation for systems with rotational degrees of freedom. Results for some models of anisotropic liquids. II. Examples”
Acta Phys. Pol. **A60**, 513-529 (1981).

9. ⊙ **L. Longa**,
 “*On the Critical Temperature of the Two-Dimensional random planar model with frustration*”
J. Phys. **A15**, L133-137 (1982)
- Presented at the International Conference on Disordered Systems and Localization, 13-15 May, 1981, Rome, ed. : C. di Castro
 - Materials of the EPS International Conference on Trends in Physics, Istanbul, 7-11 September 1981.
10. **L. Longa**,
 “*Chain version of the Constant Coupling Theory with applications to Classical Heisenberg Model*”
Z. Phys. **B47**, 59-62 (1982).
11. ⊙ **L. Longa and W.H. de Jeu**,
 “*Microscopic One-Particle Description of Reentrant Behavior in Nematic Liquid Crystals*”
Phys. Rev. **A26**, 1632-1647 (1982)
- Presented at the Bunsen Colloquium, West Berlin (1982)
 - Presented at the Vlieland Meeting of Dutch Physical Society, Summer, 1982.
 - *Invited lecture* : Freie Universität, West Berlin (1984)
 - *Invited lecture* : Martin Luther Universität, Halle, (1983).
12. **L. Longa**,
 “*Chain Version of the Constant Coupling Theory with application to Liquid Crystals*”
Phys. Lett. **A89**, 407-410 (1982).
13. ⊙ **L. Longa and W.H. de Jeu**,
 “*Mean-field model for antiferroelectric smectic-A Liquid Crystals*”
Sol. St. Commun. **46**, 693-696 (1983).
14. ⊙ **L. Longa and W.H. de Jeu**,
 “*One - particle description of antiferroelectric Smectic A Liquid Crystals*”
Phys. Rev. **A28**, 2380-2392 (1983)
- Presented at the FOM meeting, Velthoven, 1982.
15. **L. Longa**,
 “*Equilibrium Properties of Linear, Diatomic Chain*”
Acta Phys. Pol. **A68**, 803-813 (1985).

16. ⊙ **E. P. Gramsberger, L. Longa, and W. H. de Jeu**
 “*Landau Theory of the Nematic - Isotropic Phase Transition*”
Phys. Report **135**, No. 4, 195-257 (1986).
- *Invited lecture* : Freie Universität, West Berlin (1987).
17. ⊙ **W. H. de Jeu, L. Longa and D. Demus**
 “*Simple models of Induced Smectic Behavior in Binary Mixtures of Liquid Crystals*”
J. Chem. Phys. **84**, 6410-6420 (1986).
- Presented at the 10th International Liquid Crystal Conference, York, U.K. (1984).
18. **L. Longa,**
 “*A Systematic Approach to the Calculation of Tricritical Temperature with Application to the Nematic - Smectic-A Phase Transition*”
Z. Physik **B64**, 357-361 (1986).
19. ⊙ **L. Longa,**
 “*On the Tricritical Point of the Nematic - Smectic - A Phase Transition in Liquid Crystals*”
J. Chem. Phys. **85**, 2974-2985 (1986)
- *invited lecture*: University of Paderborn, (1987)
 - *invited lecture*: University of Bohum, (1987)
 - *invited lecture*: Technische Universität West Berlin, (1987).
20. **L. Longa, D. Monselesan and H.-R. Trebin**
 “*An Extension of Landau- Ginzburg- deGennes Theory for Liquid Crystals*”
Liquid Crystals Vol . 2, No. 6, 769-796, (1987).
21. **H. - R. Trebin, L. Longa and B. Salzgeber,**
 “*Metallic Glasses and Chiral Nematic Liquid Crystals*”
Physica Status Solidi, **144b**, 73-84 (1987).
22. ⊙ **L. Longa and H. - R. Trebin,**
 “*Integrity Basis Approach to the Elastic Free Energy Functional of Liquid Crystals. I. Classification of Basic Elastic Modes*”
Liq.Cryst. vol. 5, No. 2, 617-622, (1989)
- Presented at the 12th International Liquid Crystal Conference, Freiburg, BRD, (1988).
23. **L. Longa and H. - R. Trebin,**
 “*Structure of the Elastic Free Energy for chiral nematic Liquid Crystals*”
 a) Phys. Rev. **39A** (4), 2160-2168, (1989)

b) 8 pages of Appendix published in the AIP,
document no. **PAPS PLRAA-39-2160-08**.

24. ⊙ **L. Longa, D. Monselesan and H. - R. Trebin**
“*Phase Diagrams of Cholesteric Liquid Crystals Obtained with a Generalized Landau - de Gennes Theory*”
Liq. Cryst. vol. 5, 889, (1989)
 - Presented at the 12th International Liquid Crystal Conference, Freiburg, BRD, (1988).
25. ⊙ **L. Longa,**
“*Order Parameter Theories of Phase Diagrams for Antiferroelectric, smectic-A Phases. Role of orientational degrees of freedom*”
Liq. Cryst. vol. 5, 443-461, (1989)
 - *Invited lecture* : The 12th International Liquid Crystal Conference, Freiburg, BRD, (1988).
26. **L. Longa,**
“*Models of high - temperature liquid crystalline phases and of the related phase transitions*”
 - **Habilitation dissertation**
 - preprint IFJ No 1454 pp.1-169 PH, (1989).
27. ⊙ **L. Longa,**
“*Integrity Bases and the structure of order parameter space*”
Mol. Cryst. Liq. Cryst. vol.191, 49-60, (1990)
 - *Invited lecture*: The 8th Liquid Crystal Conference of Socialist Countries, Kraków, (1989).
28. ⊙ **L. Longa and H. - R. Trebin,**
“*Spontaneous polarization in chiral biaxial liquid crystals*”
Phys. Rev. A42 3453 - 3469, (1990).
29. ⊙ **L. Longa and J. Konior,**
“*Nematic - Smectic - A tricritical points for nonseparable interactions*”
Mol. Cryst. Liq. Cryst. vol.192, 191-196, (1990)
 - Presented at the 8th Liquid Crystal Conference of Socialist Countries, Kraków, (1989).
30. ⊙ **L. Longa and H. - R. Trebin,**
“*Symbolic computations for liquid crystals: integrity bases*”
Proceedings of the 13th World Congress on Computation and Applied Mathematics, Dublin, Ireland, 22-26 July (1991), vol 2 p.791 (*Invited lecture*).

31. ⊙ **L. Longa and H. - R. Trebin**,
 “Theory of liquid crystalline phases in biaxial systems”
Mol. Cryst. Liq. Cryst. **212**, 115 (1992)
- Presented at the European Conference on Liquid Crystals, Courmayeur, Italy March 10-16 (1991).
32. ⊙ **L. Longa W. Fink and H. - R. Trebin**,
 “Liquid- Crystalline blue phase III and structures of broken icosahedral symmetry”
Phys. Rev. E **48**, 2296 (1993)
- Invited lecture: The conference on Computational Problems in Liquid Crystals, November 1992, Kent State University U.S.A.
 - Presented at the European Conference on Liquid Crystals, Flims, Switzerland, 1993.
33. ⊙ **L. Longa and H. - R. Trebin**, “Bond Orientational Order in the Blue Phases of Chiral Liquid Crystals”
Phys. Rev. Letters **71**, 2757 (1993)
- Presented at the DFG Meeting, Münster 1994.
 - Presented at the International Liquid Crystal Conference in Budapest, 1994.
34. ⊙ **L. Longa, W. Fink and H. - R. Trebin**
 “Biaxiality of chiral liquid crystals”
 — ICTP preprint IC/93/338
 — Phys. Rev. E **50**, 3841 (1994).
35. ⊙ **J. Stelzer, L. Longa, and H. - R. Trebin**
 “Elastic Constants of nematic liquid crystals from molecular dynamics simulations”
Mol. Cryst. Liq. Cryst. **262** 455, (1995)
- Presented at the DFG Meeting, Münster 1994.
 - Presented at the International Liquid Crystal Conference in Budapest, 1994.
36. ⊙ **J. Stelzer, L. Longa, and H. - R. Trebin**
 “Molecular dynamics simulations of Gay - Berne nematic liquid crystal. Elastic properties from direct correlation functions”
 — ICTP preprint, (1994)
 — J. Chem. Phys. **103**, 3098 (1995); erratum: J. Chem. Phys. **107** (1997)
- Presented at the International Liquid Crystal Conference in Budapest, 1994.
37. **L. Longa, E. Curado and F. Oliveira**
 “Roundoff-induced Coalescence of Chaotic Trajectories”
Phys. Rev. (Rapid Communication), **E 54**, R2201 (1996).

38. ⊙ **L. Longa, M. Żelazna, H. - R. Trebin and J. Mościcki**
 “*Electrostriction of the cubic blue phases in the presence of bond orientational order*”
Phys. Rev. E **53** (6), 6067 (1996)
- Presented at the European Winter Liquid Crystal Conference in Bovec (Slovenia) 1995.
39. ⊙ **J. Englert, L. Longa and H. - R. Trebin**
 “*Cubic Bond Orientational Order in Liquid Crystalline Blue Phases. Role of higher stars*”
Liquid Crystals **21**, 243 (1996)
- Presented at the International Liquid Crystal Conference in Budapest, 1994.
40. ⊙ **J. Stelzer, P. Galatola, G. Barbero and L. Longa**
 “*Molecular dynamics simulations of surface ordering in a nematic liquid crystal*”
Phys. Rev. E **55**, 477 (1997).
41. ⊙ **J. Stelzer, L. Longa, and H. - R. Trebin**
 “*Homeotropic surface anchoring of a Gay-Berne nematic liquid crystal*”
Phys. Rev. E **55**, 7085 (1997)
- Presented at the XVIII Encontro Nacional de Fisica da Materia Condensada, Caxambu, June 1995 (Brasilia).
42. ⊙ **J. Englert, L. Longa, and H. R. Trebin**
 “*Blue Phases in the presence of fluctuations. A one-star analysis*”
Mol. Cryst. Liq. Cryst. **301**, 397 (1997)
- Presented at XVI International Liquid Crystal Conference, Kent USA, 1996.
43. ⊙ **J. Stelzer, L. Longa, and H. R. Trebin**
 “*Rapini - Papoular constants in a model nematic liquid crystal*”
Mol. Cryst. Liq. Cryst. **304**, 259 (1997)
- Presented at XVI International Liquid Crystal Conference, Kent USA, 1996.
44. ⊙ **J. Stelzer, P. Galatola, G. Barbero, and L. Longa,**
 “*Surface - induced order parameter profiles in a nematic liquid crystal from molecular dynamics simulations*”
Mol. Cryst. Liq. Cryst. **299**, 61 (1997)
- Presented at XVI International Liquid Crystal Conference, Kent USA, 1996.
45. ⊙ **L. Longa, M. Żelazna, and H. - R. Trebin**
 “*Nonlinear dielectric susceptibility in blue phases of chiral liquid crystals*”
Mol. Cryst. Liq. Cryst. **303**, 237 (1997)

- Invited Lecture: XVI International Liquid Crystal Conference, Kent USA, 1996.
46. **L. Longa, S. P. Dias and E. Curado**
 “Lyapunov exponents and Coalescence of Chaotic Trajectories”
Phys. Rev. E. 56, 259 (1997).
47. ⊙ **J. Stelzer, M. Bates, L. Longa, and G. R. Luckhurst**
 “Computer simulation studies of anisotropic systems XXVII. The direct pair correlation function of a Gay-Berne discotic nematic and estimates of its elastic constants”
J. Chem. Phys. 107, 7483 (1997)
- Presented at the European Conference on Liquid Crystals, Zakopane, Poland, 1997.
48. ⊙ **G. Cholewiak, J. Stelzer and L. Longa,**
 “Antiferroelectric smectic ordering of dipolar molecules from Monte Carlo simulations”
SPIE- The International Society for Optical Engineering, 3318, 179 (1998)
- Presented at the European Conference on Liquid Crystals, Zakopane, Poland, 1997.
49. ⊙ **M. Żelazna, L. Longa, H. - R. Trebin and H. Stark,**
 “Electrostriction of the cubic blue phases”
SPIE- The International Society for Optical Engineering, 3318, 182 (1998)
- Presented at the European Conference on Liquid Crystals, Zakopane, Poland, 1997.
50. ⊙ **J. Stelzer, M. Bates, L. Longa and G. R. Luckhurst**
 “Elastic constants of Gay-Berne discotic nematic liquid crystal”
SPIE- The International Society for Optical Engineering, 3318, 175 (1998)
- Presented at the European Conference on Liquid Crystals, Zakopane, Poland, 1997.
51. **L. Longa, H. - R. Trebin and M. Żelazna**
 “Phenomenological Approach to phase transitions in complex fluids”
 in “Phase transitions in Complex Fluids” A. Figueredo-Neto, P. Toledano, eds.; by World Scientific Publishing Co., p. 219 (1998).
52. ⊙ **L. Longa, J. Stelzer and D. Dunmur,**
 “Density functional approach to study elastic constants of biaxial nematic liquid crystals”
J. Chem. Phys. 109, 1555 (1998).

53. ⊙ **M. Żelazna, L. Longa, H.-R. Trebin and H. Stark**
 “*Electrostriction tensor of the cubic blue phases: The role of amplitudes*”
Physical Review E **57**(6), 6711 (1998).
54. ⊙ **J. Englert L. Longa, H. Stark and H. R. Trebin**
 “*Fluctuations Dominate the Phase Diagram of Chiral Nematics*”
Phys. Rev. Lett. **81**, 1457 (1998).
- *Invited plenary lecture at 58 Durham Meeting: Mathematical Models of Liquid Crystals and Polymers, Durham, July, 1995 (Proceedings)*
 - *Invited lecture at the XVIII Encontro Nacional de Física da Materia Condensada, Caxambu, June 1995 (Brasilia) (Proceedings).*
55. ⊙ **L. Longa, J. Stelzer and D. Dunmur**
 “*Elastic constants of biaxial nematic liquid crystals*”
Mol. Cryst. Liq. Cryst. **323**, 191, (1998).
- Presented at the European Workshop on Biaxial Nematics, Oxford, 1996
 - Presented at the European Conference on Liquid Crystals, Zakopane, Poland, 1997.
56. ⊙ **L. Longa, G. Cholewiak and J. Stelzer**
 “*Structures and correlations in polar Gay- Berne systems*”
Acta Physica Polonica B **31**, 801,(2000).
 —Presented at the Smoluchowski Conference, Zakopane, Poland, 1997
 — *Presented at the XXII Encontro Nacional de Física da Materia Condensada, São Lorentzo, June 1998 (Brasilia) (Proceedings).*
57. **K. Praefcke, D. W. Bruce, D. A. Dunmur, G. R. Luckhurst, S. Chandrasekhar, M. Osipov, Y. Galerne, C. Zannoni, D. J. Photinos, G. Jackson, S. Romano, R. Berardi, P. L. Nordio, S. Fan, A. Chrzanowska, L. Longa, S. C. McGrother, S. Sarman, N. Usol'tseva, and A. F. Martins**
 “*Discussion. Oxford Workshop on Biaxial Nematic Liquid Crystals December 1996*”
 ”
Mol. Cryst. Liq. Crys. A **323**, 261,(1998).
58. ⊙ **J. Englert, H. Stark, L. Longa, and H. R. Trebin**
 “*Influence of Fluctuations on the Phase Diagram of Chiral Nematics Liquid Crystals*”,
Phys. Rev. E **61**, 2759 (2000).
- *Presented at the XXII Encontro Nacional de Física da Materia Condensada, São Lorenzo, May 1999 (Brasilia) (Proceedings)*

- Invited lecture at EUROMECH Meeting
- Seminar lecture, University of Pavia (2003)

59. **L. Longa, M. Bachteler, A. M. Figueredo Neto, G. Cholewiak and F. A. Oliveira**
 “*Micellar shape dependence of Cholesteric pitch in lyotropic liquid crystals*”
Liquid Crystals, **27**, 1669 (2000).
60. ⊙ **M. Żelazna, J. Stelzer and L. Longa**
 “*Phase Transitions in a Cholesteric close to a disordering surface*”
Mol. Cryst. Liq. Cryst. **350**, 169 (2000).
 —Presented at the International Liquid Crystal Conference in Strassbourg.
61. ⊙ **L. Longa, G. Cholewiak, H. - R. Trebin and G. R. Luckhurst**
 “*Representation of Pair Correlations in Nematics*”
European Journal of Phys. E **4**, 51 (2001).
 — Presented at Erice Summer School on Liquid Crystals (2000)
 —Presented at the International Liquid Crystal Conference in Sendai (2000).
62. **A. M. Maroja, F. Oliveira, L. Longa and M. Cieřła**
 “*Polymer fragmentation in extensional flow* ”
Phys. Rev. E **63**, 061801 (2001).
63. ⊙ **M. Cieřła, S. P. Dias, L. Longa and F. Oliveira**
 “*Synchronization induced by Langevin Dynamics*”
Phys. Rev. E, Rapid Communication **63**, 065202(R) (2001).
64. ⊙ **L. Longa**
 “*Defect mediated phases of liquid crystals*”
 Chapter in “Structured Media”, Ed. B. T. Maruszewski, Publishing House
 of Poznań University of Technology, 2002, p.169
- Invited Lecture: TRECOP’01, Structured Media, September 16-21, Poznań, Poland, 2001.
65. ⊙ **L. Longa, M. Cieřła, and H-R. Trebin,**
 “*Correlations in the isotropic phases of chiral liquid crystals: the role of helicity modes*”
Phys. Rev. E **67**,061705 (2003).
 —Invited seminars: University of Stuttgart (Germany,2002), University of Metz (France,2003),Case Western University (USA,2005), University of Georgia (USA,2005); Kent State University (USA,2005).
66. ⊙ **L. Longa, H.-R. Trebin and G. Cholewiak,**
 “*Computer Simulations of Liquid Crystals with Dipole Moments*”

—Chapter in ”**Relaxation Phenomena: Liquid Crystals, Magnetic Systems, Polymers, High- T_c Superconductors, Metallic Glasses**”, pp. 204-233, 2003, Springer-Verlag Heidelberg, Eds. W. Haase and S. Wróbel

- Invited Lecture: Relaxation Phenomena, October 4-9, Zakopane, Poland, 2001.

67. **M. Cieřła and L. Longa,**

“*Self-consistent model of blue phase III to isotropic phase transition*”

Phys. Rev. E **70**, 012701 (2004).

— Seminar lecture, University of Brasilia, International Center of Condensed Matter Physics (2001); Technical University Darmstadt (2001); University of Metz (2003).

68. ⊙ **L. Longa and W. Józefowicz,**

“*High temperature chiral phases - a role of fluctuations*”

—Invited lecture, International Liquid Crystal Conference, Zakopane, October 2003; Proc. of SPIE - The International Society for Optical Engineering, XV Conf on Liquid Crystals, Vol.**5565**, 52-58 (2004) .

69. ⊙ **W. Józefowicz, G. Cholewiak, and L. Longa,**

“*Nematic-Smectic A phase boundary of ideally oriented Gay-Berne system: density functional vs isothermal-isobaric MC simulation*”

Phys. Rev. E **71**, 077503 (2005).

70. **L. Longa, P. Grzybowski, S. Romano and E. Virga,**

“*Minimal coupling model of biaxial nematic phase.*”

Phys. Rev. E **71**, 051714 (2005).

—Invited seminar lecture: Kent State University (USA,2005)

—Invited lecture: Gordon Conference on Liquid Crystals, (New England,2005,USA).

71. ⊙ **W. Józefowicz, M. Cieřła and L. Longa,**

“*Structure of chiral isotropic phases*”

Mol. Cryst. Liq. Cryst.,**438**, **9**, (2005).

—Presented at the 20th International Liquid Crystal Conference, Ljubljana, Slovenia, July 2004.

72. ⊙ **L. Longa and G. Pająk,**

“*Luckhurst – Romano model of biaxial nematic*”

Liq. Cryst., **32**, **1409**, (2005).

—Invited lecture: Conference on Chemical Physics Approach to Liquid Crystals, Southampton, England, 2004.

73. **R. Morgado, M. Cieřła, L. Longa and F. Oliveira,**

“*Synchronization in the presence of memory*”

Europhys. Lett. **79**, 10002 (2007).

74. **M. Cieřła and L. Longa**,
 “*Noise-Induced Synchronization in the Fahy-Hamman Model*”
Acta Physica Polonica, **38**, 1719, (2007).
 —presented at the 19th Marian Smoluchowski Symposium on Statistical Physics,
 Kraków, Poland, May 2006.
75. **M. Cieřła, J. Pawłowicz and L. Longa**,
 “*Molecular Dynamics Simulation of the Lennard-Jones polymers in a good solvent*”
Acta Physica Polonica, **38**, 1727, (2007).
 —Presented at the 19th Marian Smoluchowski Symposium on Statistical Physics,
 Kraków, Poland, May 2006.
76. **P. Góra, E. Gudowska-Nowak, K. Lindenberg, L. Longa and L. Schimansky-Geier, Editors**
 “*Proceedings of the Centennial Marian Smoluchowski Symposium on Statistical Physics*”, *Acta Phys. Pol. B* **38**, 2007.
77. ⊙ **L. Longa, G. Pająk, and T. Wydro**,
 “*Stability of Biaxial Nematic Phase for Systems with Variable Molecular Shape Anisotropy*”
Phys. Rev. E **76**, 011703, (2007).
 — Presented at the 9th European Conference on Liquid Crystals, Lisbon, Portugal,
 July 2007.
78. **R. M. Silva, M. Cieřła, L. Longa and F. Oliveira**,
 “*Synchronization in the presence of memory*”
InterSciencePlace **79**, 10002 (2007).
79. ⊙ **W. Józefowicz and L. Longa**,
 “*Frustration in Smectic Layers of polar Gay-Berne systems*”
Phys. Rev. E **76**, 011701 (2007).
 —Invited talk: U.S.A.-Poland Workshop on Nanoscience and Nano-Structured Materials, Poznan, June, 2006;
 —Invited talk (presented by W. Józefowicz): Great Lakes Photonics Symposium, GLPS2006, (Dayton, OH,USA), June 2006
 — seminar lecture, University of Metz (2006)
 — talk presented at the 9th European Conference on Liquid Crystals, Lisbon, Portugal, July 2007.
80. ⊙ **W. Józefowicz and L. Longa**,
 “*Simulations of the elastic bent-core molecules*”
Mol. Cryst. Liq. Cryst., **478**, 115/871 2007.
 —Presented at the 21st International Liquid Crystal Conference, Keystone, USA,
 July 2006.

81. ⊙ **D. Allender and L. Longa**,
 “*Landau-deGennes Theory of Biaxial Nematics Re-examined*”
 arXiv: 0712.3055v [cond-mat.soft] 18 Dec 2007;
Phys. Rev. E **78**, 011704 (2008).
 —Invited talk: 2nd U.S.A.-Poland Workshop on Nanoscience and Nano-Structured Materials, Gdańsk, June, 2008.
82. ⊙ **L. Longa, G. Pająk and T. Wydro**,
 “*Chiral Symmetry Breaking in Bent-Core Liquid Crystals*”
Phys. Rev. E **79** Rapid Communication, 040701(R) (2009);
 arXiv:0902.0671v1 [cond-mat.soft] 4 Feb. 2009.
 — Presented at the 22nd International Liquid Crystals Conference, Jeju, South Korea, July 2008;
 — Presented at the 12th International Conference on Ferroelectric Liquid Crystals, Zaragoza, Spain, September, 2008.
83. **F. Bisi, L. Longa, G. Pająk, and R. Rosso**
 “*Excluded-Volume Short-Range Repulsive Potential for Tetrahedral Molecules*”
Mol. Cryst. Liq. Cryst. **525**, 12 (2010).
84. ⊙ **W. Józefowicz and L. Longa**,
 “*Monte-Carlo Simulations for model bent-core molecules with fluctuating opening angle*”
 arXiv:0904.0666v1 (2009)
Mol. Cryst. Liq. Cryst. , **545**, 204/[1428] (2011).
 —Invited talk (presented by W. Józefowicz) at the Meeting of British Liquid Crystal Society, England, March 2008;
 — *Seminar lecture* : Nancy University, Nancy, (2008).
 — presented at the 23rd International Liquid Crystals Conference, Kraków, Poland, July 2010.
85. ⊙ **P. Grzybowski and L. Longa**,
 “*Stability of Biaxial Nematic Phase in Model Bent-Core Systems* ”
 arXiv:0911.4174 (2009); Physical Review Letters **107**, 027802 (2011).
 — Presented at the 9th European Conference on Liquid Crystals, Lisbon, Portugal, July 2007;
 — presented at the 22nd International Liquid Crystals Conference, Jeju, South Korea, July 2008;
 — invited talk at the International Symposium on Biaxial Nematic Liquid Crystals, Kent State University, October 2008;
 — invited talk at the 22 International Liquid Crystals Conference, Augustow, September 2009;
 — Colloquium lecture, Strathclyde University (2010);

— *Seminar lecture*: Nancy University, Nancy, (2011).

86. **K. Trojanowski, D. W. Allender, L. Longa, and L. Kuśmierz,**
“*Theory of Phase Transitions of a Biaxial Nematogen in an External Field*
Mol. Cryst. Liq. Cryst. , 540, 59 (2011).
—Presented at the 23rd International Liquid Crystal Conference, June 6-10, 2010, Cracow, Poland;
— *Seminar lecture (presented by K. Trojanowski)*: Nancy University, Nancy, (2011);
—Presented at the 24th Marian Smoluchowski Symposium on Statistical Physics, 2011, Cracow, Poland.
87. **L. Longa, and G. Pająk,**
“*Generalized Dispersion Model of Orientationally Ordered Phases of Bent-Core Liquid Crystals*
Mol. Cryst. Liq. Cryst. , 541, 152/[390] (2011).
—Presented at the 23rd International Liquid Crystal Conference, June 6-10, 2010, Cracow, Poland.
88. **M. Cieśla, and L. Longa,**
“*Landau-Degennes Theory Of Thermotropic Biaxial Nematics: A Role Of Fluctuations*
Mol. Cryst. Liq. Cryst. , 545, 214/[1438] (2011).
—Presented at the 23rd International Liquid Crystal Conference, June 6-10, 2010, Cracow, Poland.
89. **L. Longa, M. Marzec, and S. Wróbel, Eds.**
“*Liquid Crystal Phases, Structures, Defects and Ordering*
(Mol. Cryst. Liq. Cryst. vol. 540, (2011).
Proceedings of the 23rd International Liquid Crystal Conference, June 6-10, 2010, Cracow, Poland.
90. **L. Longa, M. Marzec, and S. Wróbel, Eds.**
“*Liquid Crystal Phases, Structures, Defects and Ordering (Cont.) Dielectric Spectroscopy.*
(Mol. Cryst. Liq. Cryst. vol. 541, (2011).
Proceedings of the 23rd International Liquid Crystal Conference, June 6-10, 2010, Cracow, Poland.
91. **L. Longa, M. Marzec, and S. Wróbel, Eds.**
“*Molecular Design, Synthesis and New Materials. Non-Display Applications*

(Mol. Cryst. Liq. Cryst. vol. **542**, (2011).

Proceedings of the 23rd International Liquid Crystal Conference, June 6-10, 2010, Cracow, Poland.

92. **L. Longa, M. Marzec, and S. Wróbel, Eds.**

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