

ANDRZEJ KRASIŃSKI
LIST OF ALL PUBLICATIONS
(where no names are listed, A. K. is the sole author)

1 Textbooks and Monographs

- [1] 1. Inhomogeneous cosmological models [a monograph]. Cambridge University Press, Cambridge 1997, 317 pp, ISBN 0 521 48180 5. Paperback re-edition 2006; electronic re-edition 2010.
- [2] 2. Jerzy Plebański and A. Krasinski, An introduction to general relativity and cosmology [a textbook]. Cambridge University Press 2006.
The list of corrections to errors and typos found (by Mr. Przemysław Jacewicz) after publication of the book is available from the web page:
http://www.cambridge.org/resources/052185623X/6730_Errata.pdf
- [3] 3. Krzysztof Bolejko, A. Krasinski, Charles Hellaby and Marie-Noëlle Célérier, Structures in the Universe by exact methods – formation, evolution, interactions [a monograph]. Cambridge University Press 2009.

2 Research papers published in refereed international journals

- [4] 1. Solutions of the Einstein field equations for a rotating perfect fluid, Part 1 - Presentation of the flow-stationary and vortex- homogeneous solutions. *Acta Phys. Polon.* **B5**, 411 (1974).
- [5] 2. Solutions of the Einstein field equations for a rotating perfect fluid, Part 2 - Properties of the flow-stationary and vortex- homogeneous solutions. *Acta Phys. Polon.* **B6**, 223 (1975).
- [6] 3. Solutions of the Einstein field equations for a rotating perfect fluid, part 3 - A survey of models of a rotating perfect fluid or dust. *Acta Phys. Polon.* **B6**, 239 (1975), also published in a largely expanded form as a preprint.
- [7] 4. Some solutions of the Einstein field equations for a rotating perfect fluid distribution. *J. Math. Phys.* **16**, 125 (1975).

- [8] 5. All flow-stationary cylindrically symmetric solutions of the Einstein field equations for a rotating isentropic perfect fluid. *Rep. Math. Phys.* **14**, 225 (1978).
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- [17] 14. A. Krasinski, Stanisław Bazański and Renata Kaczyńska, Physical properties of the extended Chasles equilibrium figure. *Phys. Lett.* **A 115**, 33 (1986).
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- [19] 16. Shearfree normal cosmological models. *J. Math. Phys.* **30**, 433 (1989).
- [20] 17. A note on the uniqueness of the Wyman solution. *Rep. Math. Phys.*, **29**, 337 (1991).
- [21] 18. The program ORTOCARTAN for algebraic calculations in relativity. *Gen. Rel. Grav.* **25**, 165 (1993).
- [22] 19. Bibliography on inhomogeneous cosmological models. *Acta Cosmologica* **20**, 67 (1994).
- [23] 20. A. Krasinski, Hernando Quevedo and Roberto Sussman, On thermodynamical interpretation of perfect fluid solutions of the Einstein equations with no symmetry. *J. Math. Phys.* **38**, 2602 (1997).
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- [30] 27. A. Krasinski and Charles Hellaby, Structure formation in the Lemaitre – Tolman model. *Phys. Rev.* **D65**, 023501 (2002).
- [31] 28. Charles Hellaby and A. Krasinski, You can't get through Szekeres wormholes or regularity, topology and causality in quasi-spherical Szekeres models. *Phys. Rev.* **D66**, 084011 (2002).
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- [33] 30. A. Krasinski and Charles Hellaby, Formation of a galaxy with a central black hole in the Lemaitre – Tolman model. *Phys. Rev.* **D69**, 043502 (2004).
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- [40] 37. A. Krasinski, Charles Hellaby, Marie-Noëlle Célérier and Krzysztof Bolejko, Imitating accelerated expansion of the Universe by matter inhomogeneities – corrections of some misunderstandings. arxiv 0903.4070, submitted for publication.
- [41] 38. Marie-Noëlle Célérier, Krzysztof Bolejko and A. Krasinski, A (giant) void is not mandatory to explain away dark energy with a Lemaître – Tolman model. arxiv 0906.0905, submitted for publication.

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- [42] 1. The Universe with time-varying spatial curvature index. In: *The birth of the Universe*. Edited by J. Audouze and J. Tran Thanh Van. Proceedings of the 17-th Rencontre de Moriond 1982, vol. 34. Editions Frontieres, Gif sur Yvette 1982, p. 15.
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- [47] 6. Inhomogeneous generalizations of the Robertson-Walker cosmological models. In: *Gravitational Collapse and Relativity, Proceedings of Yamada Conference XIV*. Edited by H. Sato and T. Nakamura. World Scientific Publishing Company, Singapore 1986, p. 500.
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- [49] 8. Early inhomogeneous cosmological models in Einstein's theory. In: *Modern Cosmology in Retrospect*. Edited by B. Bertotti, R. Balbinot, S. Bergia and A. Messina. Cambridge University Press, Cambridge 1990, p. 115.
- [50] 9. User-friendly features of ORTOCARTAN. In: *Computer Algebra in Physical Research*. Edited by D. V. Shirkov, V. A. Rostovtsev and V. P. Gerdt. World Scientific, Singapore 1991, p. 66.
- [51] 10. A survey of cosmological exact solutions. In: *Proceedings of the 6th Marcel Grossman Meeting on General Relativity*. Edited by H. Sato and T. Nakamura. World Scientific, Singapore 1992, p. 642.
- [52] 11. Physics in an inhomogeneous Universe. In: *Inhomogeneous cosmological models. Proceedings of the 1994 Spanish Relativity Meeting*. Edited by J. M. M. Senovilla and A. Molina. World Scientific, Singapore, 1995, p. 27.
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- [54] 13. Physics and cosmology in an inhomogeneous Universe. In: *Black holes and high energy astrophysics. Proceedings of the 49th Yamada Conference*. Edited by H. Sato and N. Sugiyama. Universal Academy Press, Tokyo 1998, p. 133.
- [55] 14. The ultimate extension of the Bianchi classification for rotating dust models. In: *On Einstein's path: Essays in honor of Engelbert Schucking*. Edited by A. Harvey. Springer, New York 1999, p. 283.
- [56] 15. Rotating dust models in relativity. In: *Coherent states, quantization and gravity. Proceedings of the XVIIth Workshop on Geometric Methods in Physics, Białowieża (Poland) 1998*. Edited by M. Schlichenmaier, A. Strasburger, S. Twareque Ali and A. Odziejewicz. Warsaw University Press, Warsaw 2001, p. 199.
- [57] 16. Inhomogeneous cosmology – workshop report (Edited by A. Krasinski). In: *The Ninth Marcel Grossman Meeting on Recent Developments in Theoretical and Experimental General Relativity, Gravitation and Relativistic Field Theories*. Edited by V. G. Gurzadyan, R. T. Jantzen and R. Ruffini. World Scientific, New Jersey, London, Singapore, Hong Kong 2002, p. 627.
- [58] 17. Recent developments in the system Ortocartan. In: *The Ninth Marcel Grossman Meeting on Recent Developments in Theoretical and Experimental General Relativity, Gravitation and Relativistic Field Theories*. Edited by V. G. Gurzadyan, R. T. Jantzen and R. Ruffini. World Scientific, New Jersey, London, Singapore, Hong Kong 2002, p. 1701.

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- [60] 19. Charles Hellaby and A. Krasinski, Szekeres models and their wormholes. In: *The Tenth Marcel Grossman Meeting on Recent Developments in Theoretical and Experimental General Relativity, Gravitation and Relativistic Field Theories*. Edited by M. Novello, S. P. Bergliaffa and R. Ruffini. World Scientific, New Jersey, London, Singapore, Beijing, Shanghai, Hong Kong, Taipei, Chennai 2005, p. 29.
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- [62] 21. A. Krasinski and Charles Hellaby, Structure formation in the Lemaître–Tolman cosmological model (a non-perturbative approach). In: *Topics in mathematical physics, general relativity and cosmology, in honor of Jerzy Plebański*. Proceedings of 2002 international conference. Edited by H. Garcia-Compean, B. Mielnik, M. Montesinos and M. Przanowski. World Scientific, New Jersey, London, Singapore, Beijing, Shanghai, Hong Kong, Taipei, Chennai 2006, p. 279.
- [63] 22. A. Krasinski and Krzysztof Bolejko, Nonsingular collapse of spherically symmetric charged dust. In: *Proceedings of 11th Marcel Grossman Meeting*. Edited by H. Kleinert, R.T. Jantzen and R. Ruffini, World Scientific, Singapore, 2008, p. 700.

4 Communications printed in conference volumes (Note: short conference abstracts are not included in this list at all)

- [64] 1. A class of rotating and expanding Universes. In: *8th International Conference on General Relativity and Gravitation*. University of Waterloo 1977, p. 216.
- [65] 2. Ellipsoidal spacetimes. In: *8th International Conference on General Relativity and Gravitation*. University of Waterloo 1977, p. 217.
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- [70] 7. The system ORTOCARTAN for algebraic calculations - new developments. In: *10th International Conference on General Relativity and Gravitation*. University of Padua 1983, p. 433.
- [71] 8. The Universe with varying topology of spatial slices. In: *10th International Conference on General Relativity and Gravitation*. University of Padua 1983, p. 841.
- [72] 9. The program ORTOCARTAN - developments since 1983. In: *11th International Conference on General Relativity and Gravitation*. University of Stockholm 1986, p. 58.
- [73] 10. Spacetimes with conformally flat flow-orthogonal sections. In: *11th International Conference on General Relativity and Gravitation*. University of Stockholm 1986, p. 327.
- [74] 11. A unified representation of the shearfree normal models. In: *12th International Conference on General Relativity and Gravitation*. University of Colorado at Boulder 1989, p. 341.
- [75] 12. Cosmological exact solutions. In: *12th International Conference on General Relativity and Gravitation*. University of Colorado at Boulder 1989, p. 340.
- [76] 13. The program ORTOCARTAN - now available on Atari. In: *13th International Conference on General Relativity and Gravitation*. University of Cordoba 1992, p. 305.
- [77] 14. Cosmology in an inhomogeneous Universe. In: *13th International Conference on General Relativity and Gravitation*. University of Cordoba 1992, p. 378.

5 Technical reports (distributed as preprints or electronic recordings; not otherwise published)

- [78] 1. A. Krasinski, Marek Perkowski and Zdzisław Otwinowski, The system ORTOCARTAN for analytic calculations. Detailed description. Preprint (1979), documentation to the program.

- [79] 2. A. Krasieński and Marek Perkowski, The system ORTOCARTAN - user's manual. Preprint (1st issue 1979, 2nd issue 1980), documentation to the program.
- [80] 3. A. Krasieński and Marek Perkowski, The system ORTOCARTAN - user's manual. Third edition, Cologne 1983. Updated documentation to the program, stored and distributed on a magnetic tape.
- [81] 4. A. Krasieński, Marek Perkowski, Zdzisław Otwinowski and Marek Kwaśniewski, The system ORTOCARTAN for analytic calculations. Detailed description. Second edition, Warsaw 1984. Updated documentation to the program, stored and distributed on a magnetic tape.
- [82] 5. The system ORTOCARTAN - user's manual. Supplement to the second edition. Preprint (1984), documentation to the program (included in later updates).
- [83] 6. A. Krasieński and Marek Perkowski, The system ORTOCARTAN - user's manual. Fourth edition, Warsaw 1992. Revised and extended documentation to the program, stored and distributed on diskettes.
- [84] 7. A. Krasieński and Marek Perkowski, The system ORTOCARTAN - user's manual. Fifth edition, Warsaw 2000. Revised and extended documentation to the program, stored on disk, distributed by email only.

6 Notes of lecture courses given at research schools (those given in Poland are marked with PPP)

- [85] 1. A survey of cosmological models. *Acta Cosmologica* **7**, 101 (1978). (PPP)
- [86] 2. Rotational motion of matter in general relativity. *Acta Cosmologica* **7**, 119 (1978). (PPP)
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- [88] 4. Symmetries of manifolds and tensor fields and the Bianchi classification. In: *Proceedings of the Instructional Workshop on Advanced Aspects of General Relativity, vol. I*. Edited by A. Banerjee. Jadavpur University and the Indian Association for the Cultivation of Science, Calcutta 1989, p. 6.

7 Semi-popular texts for physicists + review papers (all in Polish)

- [89] 1. Models of the Universe in general relativity. *Postępy Astronomii* **23**, 97 (1975).
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- [98] 10. What is space and what space do we live in? (the point of view of a nonquantum physicist). In: *Space in Contemporary Science*. Edited by S. Symotiuk and G. Nowak. Publishing House of the Maria Curie-Skłodowska University, Lublin 2000, p. 11.
- [99] 11. How the theory of relativity had been taking shape. *Postępy Fizyki* **54**, 95 (2003).
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8 Short notes correcting errors in published papers by other authors

- [102] 1. [Comment on the paper by Li, JMP **33**, 3506 (1992)], *J. Math. Phys.* **35**, 527 (1994).

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9 Editorial notes about classic papers on relativity

- [105] 1. [The Lanczos 1924 paper on rotating dust] *Gen. Rel. Grav.* **29**, 359 (1997).
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- [111] 7. [The Bonnor 1956 paper on the formation of “nebulae”] *Gen. Rel. Grav.* **30**, 1111 (1998).
- [112] 8. [The Shirokov-Fisher 1962 paper on averaging out spatial inhomogeneities in cosmological models] *Gen. Rel. Grav.* **30**, 1407 (1998).
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- [114] 10. [The Vaidya papers on his radiating metric] *Gen. Rel. Grav.* **31**, 115 (1999).
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- [121] 17. [The Novikov paper on properties of the Schwarzschild solution] *Gen. Rel. Grav.* **33**, 2255 (2001).
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- [123] 19. A. Krasinski, Christoph G. Behr, Engelbert Schücking, Frank B. Estabrook, Hugo D. Wahlquist, George F. R. Ellis, Robert Jantzen and Wolfgang Kundt, The Bianchi classification in the Schücking–Behr approach. *Gen. Rel. Grav.* **35**, 475 (2003).
- [124] 20. Jürgen Ehlers and A. Krasinski, Comment on the paper by J. T. Jebsen reprinted in *Gen. Rel. Grav.* **37**, 2253 - 2259 (2005). *Gen. Rel. Grav.* **38**, 1329 (2006).
- [125] 21. Golden Oldies – a reactivation (editorial). *Gen. Rel. Grav.* **39**, 1043 (2007).
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- [138] 9. Edward Kasner *Gen. Rel. Grav.* **40**, 868 (2008).
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11 Popular articles for open public (all in Polish)

- [144] 1. What is relativity theory; part 1: Geometrical foundations. *Delta* no 5 (1978), p. 6.
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- [146] 3. Relativity of simultaneity. *Delta* no 12 (1979), p. 10.
- [147] 4. Inertial forces. *Delta* no 3 (1980), p. 10.
- [148] 5. The Archimedes law. *Delta* no 5 (1980), p. 8.
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- [150] 7. How the chemical elements came into being; part 1. *Urania* **60** no 9, 258 (1989).
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- [153] 10. Physics in an inhomogeneous Universe. *Urania - Postępy Astronomii* **41** no 1, 29 (1993).
- [154] 11. Gravitational lenses. *Delta* no 7 (1995), p. 1.

- [155] 12. More on gravitational lenses. *Urania - Postępy Astronomii* **43** no 3, 124 (1995).
- [156] 13. Gravitational radiation. *Urania - Postępy Astronomii* **44** no 1, 124 (1996).
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12 Other popular texts

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13 Short popular notes (all in Polish)

- [161] 1. Praise to precision. *Delta* no 1 (1980), p. 2.
- [162] 2. Nobel for the diligent. *Delta* no 1 (1980), p. 4.
- [163] 3. Praise to imprecision. *Delta* no 1 (1980), p. 6.
- [164] 4. What do we like less. *Delta* no 1 (1980), p. 9.
- [165] 5. Praise to restraint. *Delta* no 1 (1980), p. 11.
- [166] 6. [A problem to solve]. *Delta* no 1 (1980), p. 13.
- [167] 7. [Three problems to solve]. *Delta* no 3 (1980), p. 4.
- [168] 8. When I was a fish. *Delta* no 8 (1980), p. 17.

14 Book reviews

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