**Janusz Czelakowski**



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**Biogram**

Born on May 28, 1949, in Kluczbork (Poland).
1972: graduated from the University of Wrocław in 1972 (master's degree in mathematics).
1975: PhD thesis in mathematics at the University of Warsaw.

*Work*
1972-1992: Polish Academy of Sciences in Warsaw.
1992- present: Opole University, Poland.

*Post*:
Full Professor at Opole University and the head of Chair of Algebra and Logic in the Institute of Mathematics and Informatics there.

1990/1991 and 1994/1995: Visiting Professor in the Departament of Mathematics of the Iowa State University in Ames, U.S.A.

*Main interests*:
abstract algebraic logic, universal algebra, action theory, infinitistic methods in the theory of definitions, algebraic methods in set theory.

2002: awarded Gold Cross of Merit.

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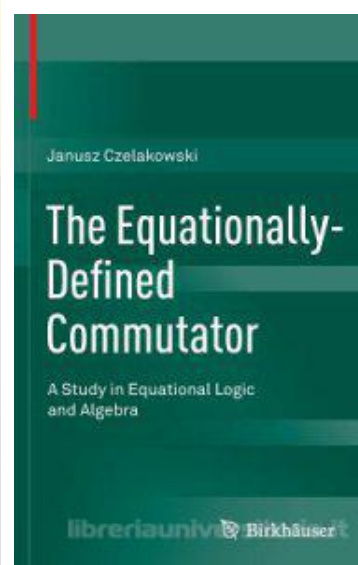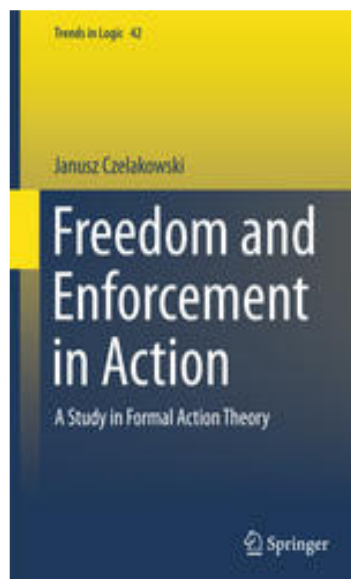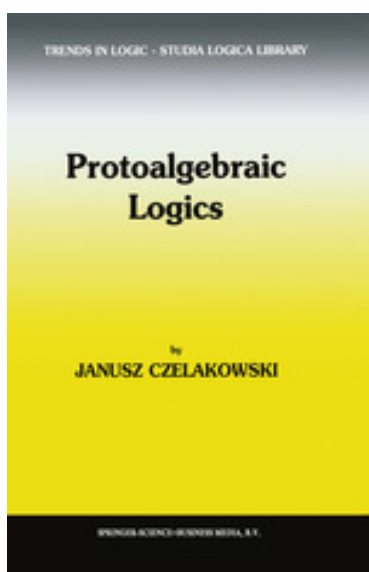email:        jczel@math.uni.opole.pl

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**List of publications of Janusz Czelakowski (in the chronological order. December 2017)**

**MONOGRAPHS**

1. *Model -Theoretic Methods in the Methodology of Propositional Calculi*, Institute of Philosophy and Sociology, Polish Academy od Sciences, Warsaw 1980.
2. *Protoalgebraic Logics*, Kluwer Academic Publishers, Dordrecht 2001, xi + 454 pages.
3. *Freedom and Enforcement in Action. Elements of Formal Action Theory*, Springer 2015, xv + 261 pages.
4. *The Equationally Defined Commutator. A Study in Equational Logic and Algebra*, Birkhäuser 2015, ix + 291 pages.

**ARTICLES**

1. *Some remarks on transitive partial Boolean algebras*, Bulletin of the Section of Logic, Vol. 2, No. 3 (1973), 166-174.
2. *Another approach to partial Boolean algebras*, Bulletin of the Section of Logic, Vol. 2, No. 3 (1973), 175-177.
3. *On imbeding of partial Boolean algebras into Boolean algebras*, Bulletin of the Section of Logic, Vol. 2, No. 3 (1973), 178-181.
4. *A local property of imbeddings for partial Boolean algebras*, Bulletin of the Section of Logic, Vol. 2, No. 3 (1973), 182-184.
5. *Partial Boolean $\sigma$- algebras*, Bulletin of the Section of Logic, Vol. 3, No. 1 (1974), 45-50.
6. *Logics based on partial Boolean $\sigma$- algebras*, Bulletin of the Section of Logic, Vol. 3, No. 2 (1974), 31-37.
7. *The identity relation and partial Boolean algebras*, Bulletin of the Section of Logic, Vol. 3, Nos. 3-4 (1974), 34-36.
8. *Correction to my note "Partial Boolean $\sigma$- algebras"*, Bulletin of the Section of Logic, Vol. 3, Nos. 3-4 (1974), 47-49.
9. *Logics based on partial Boolean algebras. Part* 1., Studia Logica, Vol. 34, No. 4 (1974), 371-396.
10. *Logics based on partial Boolean algebras. Part* 2., Studia Logica, Vol. 35, No. 1 (1975), 69-86.
11. *On extending of partial Boolean algebras to partial \*-algebras*, Colloquium Mathematicum, Vol. 40, No. 1 (1978), 13-21.
12. *Partial Boolean algebras in the broader sense*, Studia Logica, Vol. 38, No. 1 (1979), 1-16.
13. *On σ-orthodistributivity*, Colloquium Mathematicum, Vol. 41, No. 1 (1979), 13-24.
14. *A note on countable algebraic models*, Bulletin of the Section of Logic, Vol. 8, No. 1 (1979), 2-6.
15. *A purely algebraic proof of the Omitting Type Theorem*, Bulletin of the Section of Logic, Vol. 8, No. 1 (1979), 7-9.
16. *"Large" matrices which induce finite consequence operations*, Bulletin of the Section of Logic, Vol. 8, No. 2 (1979), 79-82.
17. *A characterization of **Matr**(C)*, Bulletin of the Section of Logic, Vol. 8, No. 2 (1979), 83-86.
18. *ω-Saturated matrices*, Bulletin of the Section of Logic, Vol. 8, No. 3 (1979), 120-123.
19. *Equivalential logics* (I), Bulletin of the Section of Logic, Vol. 9, No. 2 (1980), 88-92.
20. *Equivalential logics* (II), Bulletin of the Section of Logic, Vol. 9, No. 3 (1980), 108-114.
21. *A remark on free products*, Bulletin of the Section of Logic, Vol. 9, No. 3 (1980), 125-130.
22. *Reduced products of logical matrices*, Studia Logica, Vol. 39, No. 1 (1980), 19-43.
23. *Partial Boolean algebras in the broader sense as a semantics for quantum logic*, Reports on Mathematical Logic, Vol. 11, 49-56.
24. *Partial referential matrices for quantum logics*, in: E. Beltrametti and Bas C. Van Fraassen (eds.), *Current Issues in Quantum Logic*, Plenum Press, London/New York 1981, 131-146.

25. *Equivalential logics. Part* 1, Studia Logica, Vol. 40, No. 3 (1981), 227-236. (This is an extended version of 19.)

26. *Equivalential logics. Part* 2, Studia Logica, Vol. 40, No. 4 (1981), 355-372. (This is an extended version of 20.)

27. *Partial Boolean algebras in the broader sense and Bollean embeddings*, Colloquium Mathematicum, Vol. 45, No. 2 (1981), 171-180.

28. *Logical matrices and the amalgamation property*, Studia Logica, Vol. 41, No. 4 (1982), 329-341.

29. *Another proof that $ISP_R(\mathbf{K})$ is the least quasivariety containing* $\mathbf{K}$, Studia Logica, Vol. 41, No. 4 (1982), 343-345. Coauthor: Wiesław Dziobiak.

30. *Algebraic aspects of Deduction Theorems*, Bulletin of the Section of Logic, Vol. 12, No. 3 (1983), 111-116.

31. *Matrices, primitive satisfaction and finitely based logics*, Studia Logica, Vol. 42, No. 1 (1983), 89-104.

32. *Some theorems on structural entailment relations*, Studia Logica, Vol. 42, No. 4 (1983), 417-429.

33. *Filter-distributive sentential logics*, in: Abstracts of Sections 5 and 12 of the 7th International Congress of Logic, Methodology and Philosophy of Science, Salzburg, Austria, July 11th –17th, 1983, J. Huttergger Ohg., Salzburg 1983, 39-42.

34. *Filter-distributive logics*, Studia Logica, Vol. 43, No. 4 (1983), 359-377.

35. *Some remarks on finitely based logics*, in: G.H. Müller and M.M. Richter (eds.), Models and Sets. Proceedings of the Logic Colloquium held in Aachen, July 18-23, 1983, Lecture Notes in Mathematics, Vol. 1103, Springer-Verlag, Berlin/Heidelberg 1984, 147-168.

36. *Sentential logic and the Maehara interpolation property*, Studia Logica, Vol. 44, No. 3, (1985), 265-283.

37. *Key notions of Tarski's methodology of deductive sciences*, Studia Logica, Vol. 44, No. 4, (1985), 321-351. Coauthor: Grzegorz Malinowski.

38. *Algebraic aspects of Deduction Theorems*, Studia Logica, Vol. 44, No. 4 (1985), 369-387. (This is an extended version of 30.)

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40. *Algebraic aspects of Deduction Theorems*, The Journal of Symbolic Logic, Vol. 51, No. 2 (1986), 484-485.

41. *Remarks on Boolean extensions of models*, Acta Universitatis Wratislaviensis. Vol. 35, Logika 11 (1987), 13-37.

42. *Uniform proof schemes*, Acta Universitatis Wratislaviensis. Vol. 57, Logika 11 (1988), 33-40.

43. *Logiki równoważnościowe* (in Polish), Edukacja Filozoficzna, Vol. 5 (1988).

44. *Relatively point-regular quasivarieties*, Bulletin of the Section of Logic, Vol. 18, No. 4 (1989), 138-145.

45. *Congruence-distributive quasivarieties whose finitely subdirectly irreducible members form a universal class*, Algebra Universalis, Vol. 27, No. 1 (1990), 128-149. Coauthor: Wiesław Dziobiak.

46. *Relatively congruence-distributive subquasivarieties of filtral varieties*, Bulletin of the Section of Logic, Vol. 19, No. 2 (1990), 66-70.

47. *Prakseologia formalna i formalna teoria działania* (in Polish), Prakseologia, Nr 1-2 (110-111) (1991), 221-255.

48. *A Deduction Theorem scheme for deductive systems of propositional logics*, Studia Logica, Vol. 50 (1991), 385-396, in: Wim J. Blok and Don Pigozzi (eds.), *Special Issue on Algebraic Logic*. Coauthor: Wiesław Dziobiak.
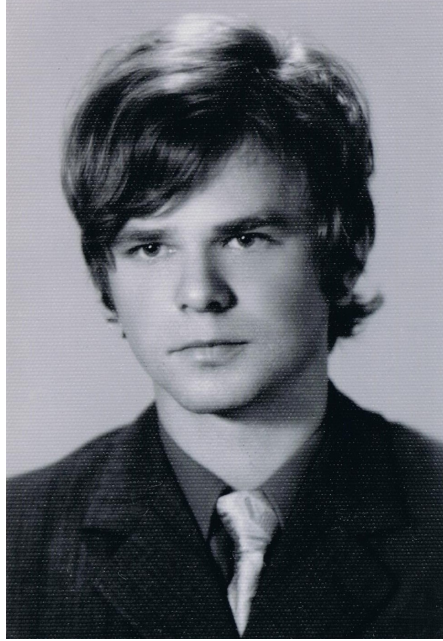
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50. *A note on the extension property for relatively congruence-distributive quasivarieties*, Bulletin of the Section of Logic, Vol. 21, No. 3 (1992), 92-96.
51. *A single quasi-identity for a quasivariety with the Fraser-Horn property*, Algebra Universalis, Vol. 29, No. 1 (1992), 10-15. Coauthor: Wiesław Dziobiak.
52. *Probabilistyczne teorie działania* (in Polish), Prakseologia, Nr 1-1 (118-119) (1993), 25-54.
53. *Działanie i deontologia* (in Polish), in: Jerzy Pogonowski (ed.), *Eufonia i Logos. Księga pamiątkowa ofiarowana Profesor Marii Stefen-Batogowej oraz Profesorowi Tadeuszowi Batogowi*, Wydawnictwo UAM, Poznań 1995, 147-168.
54. *Logics and operators*, Logic and Logical Philosophy, Vol. 3 (1995), 87-100.
55. *Elements of formal action theory*, in: Andre Fuhrmann and Hans Rott (eds.), *Logic, Action and Information. Essays on Logic and Artificial Intelligence*, Walter de Gruyter, Berlin/New York 1996, 3-62.
56. *Filtered subdirect products*, Bulletin of the Section of Logic, Vol. 25, No. 2 (1996), 103-111.
57. *The Parameterized Local Deduction Theorem for quasivarieties of algebras and its application*, Algebra Universalis, Vol. 35, No. 2 (1996), 373-419. Coauthor: Wiesław Dziobiak.
58. *Logic and Deontology*, in: Eva Ejerhed and Sten Lindström (eds.), *Logic, Action and Cognition – Essays in Philosophical Logic*, Kluwer, Dordrecht/Boston/London 1997, 47-87.
59. *The Fregean axiom and Fregean logics*, in: Mieczysław Omyła (ed.), *Skłonność metafizyczna. Bogusławowi Wolniewiczowi w darze*, Uniwersytet Warszawski, Warszawa 1997, 33-55.
60. *Freedom and action. The closure principle*, Acta Unversitatis Wratislaviensis, Vol. 1890, Logika 17 (1998), 103-123.
61. *On the classification of deductive systems*, Workshop on Abstract Algebraic Logic, CRM, Bellaterra 1998, 15-22.
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63. *Amalgamation and interpolation in Abstract Algebraic Logic*, in: Xavier Caicedo and Carlos H. Montenegro (eds.), *Models, Algebras, Proofs*, Marcel Dekker, Inc., New York/Basel 1999, 187-265. Coauthor: Don Pigozzi.
64. *Deduction Theorems within **RM** and its extensions*, The Journal of Symbolic Logic, Vol. 64, No.1 (1999), 279-290. Coauthor: Wiesław Dziobiak.
65. *Local characterization theorems for some classes of structures*, Acta Scientiarum Mathematicarum (Szeged), Vol. 65 (1999), 19-32. Coauthor: Raimon Elgueta.
66. *Weakly algebraizable logics*, The Journal of Symbolic Logic, Vol. 65, No. 1 (2000), 641-668. Coauthor: Ramon Jansana.
67. *Operator Suszki* (in Polish), in: Mieczysław Omyła (ed.), *Idee logiczne Romana Suszki*, Uniwersytet Warszawski, Warszawa 2001, 175-181.
68. *Uwagi o teorii mnogości* (*na marginesie dyskusji o książce prof. Ryszarda Wójcickiego*) (in Polish), Filozofia Nauki, Rok 10, Nr 2(38) (2002), 73-76.
69. *John F. Horthy. Agency and Deontic Logic* (a review), Erkenntnis, Vol. 58, No.1 (2003), 116-125.
70. *J. Michael Dunn and Gary M. Hardegree. Algebraic Methods in Philosophical Logic*, (a review), The Bulletin of Symbolic Logic, Vol. 9, No. 2 (2003), 231-234.
71. *The Suszko operator. Part* I, Studia Logica, Vol. 74, Nos. 1-2 (2003), 181-231.

72. *Fregean logics*, Annals of Pure and Applied Logic (Tarski Centenary Volume), Vol. 127 (2004), 17-76. Coauthor: Don Pigozzi.

73. *Equivalential logics (after 25 years of investigations)*, Reports on Mathematical Logic, Vol. 38 (2004), 23-36.

74. *Fregean Logics with the Multiterm Deduction Theorem and their algebraization*, Studia Logica, Vol. 78, Nos. 1-2 (2004), 171-212. Coauthor: Don Pigozzi.

75. *Towards the algebraization of set theory. Set-theoretic domains*, Bulletin of the Section of Logic, Vol. 33, No. 3 (2004), 157 – 178.

76. *A general theory of the commutator for deductive systems. Part 1. Basic facts*, Studia Logica, Vol. 80 (2006).

77. *Truth-schemes for intensional logics*, Reports on Mathematical Logic, Vol. 41 (2006), 151-171. Coauthor: Wiesław Dziobiak.

78. *Fixed-points for relations and the back and forth method*, Bulletin of the Section of Logic, Vol. 35, Nos.2-3 (2006), 63-71.

79. *Induction principles for sets*, in: Grażyna Mirkowska (ed.), *Memorial Book Dedicated to Professor Andrzej Grzegorczyk,* Fundamenta Informaticae, Vol. 81 (2007), 97-122.

80. *Fregean logics and the strong amalgamation property*, Bulletin of the Section of Logic, Vol. 36, Nos.3-4 (2007), 105-116. (Special issue dedicated to Professor Hiroakira Ono.)

81. *Additivity of the commutator and residuation*, Reports on Mathematical Logic, Vol. 43 (2008), 109-132.

82. *AC is equivalent to the coherence principle. Corrigendum to my paper "Induction principles for sets"*, Fundamenta Informaticae, Vol. 93 (2009), 353-356.

83. *Monotone relations, fixed points and recursive definitions*, in: David Makinson, Jacek Malinowski, Heirich Wansing (eds.), *Towards Mathematical Philosophy*, Trends in Logic, Vol. 28, Springer, Berlin 2009, 125-164.

84. *Foreword*, Studia Logica, Vol. 99 (2011), 1-8. Coauthor: Wiesław Dziobiak. (Special issue dedicated to Professor Ryszard Wójcicki).

85. *O probabilistycznej interpretacji predykatów* (in Polish), in: Joanna Golińska-Pilarek, Anna Wójtowicz (eds.), *Identyczność znaku, czy znak identyczności*, Wydawnictwo Uniwersytetu Warszawskiego, Warszawa 2012, 195-204.

86. *Normy z perspektywy teorii działania* (in Polish), in: Jerzy Juchnowski, Robert Wiszniowski (eds.), *Współczesna teoria i praktyka badań społecznych i humanistycznych*, Tom 2. Logika, Wydawnictwo Adam Marszałek, Toruń 2013, 11-33.

87. *Triangular irreducibility of congruences*, Algebra Universalis, Vol. 71 (2014), 261-283.

88. *Logika i algebra w Opolu* (*Logic and Algebra in Opole*) (in Polish), in: Włodzimierz Bąk, Janusz Czelakowski, Tadeusz Nadzieja, Andrzej Spakowski (eds.), *60 lat matematyki w Opolu*, Instytut Matematyki i Informatyki, Uniwersytet Opolski, Opole 2014.

89. *Probabilistic Interpretations of Predicates*, in: Katalin Bimbó (ed.), *J. Michael Dunn on Information Based Logics*, Outstanding Contributions to Logic, Vol. 8, Springer 2016, 247-278.

90. *Abstrakcyjna logika algebraiczna pomostem między algebrą a logiką* (*Abstract algebraic logic as a bridge between algebra and logic*) (in Polish), Wiadomości Matematyczne 52(2) (2016), Polskie Towarzystwo Matematyczne, 201-217.

91. *Garść uwag o metodach niefinitystycznych w matematyce* (*A handful of remarks on infinitistic methods in mathematics*) (in Polish), in: Anna Brożek, Alicja Chybińska,

Marcin Tkaczyk, Mariusz Grygianiec (eds.), *Księga pamiątkowa dedykowana prof. Jackowi Jadackiemu, Myśli o języku, nauce i wartościach*, Wydawnictwo Semper, ISBN 978-83-7507-203-7, Warszawa 2016, 107-138.

92. *Reguły działania a argumentacja* (*Rules of action and argumentation*), (in Polish), Zagadnienia Naukoznawstwa, Tom III, Special Issue ArgDiaP 2015, Zeszyt 209 (2016), 331-355.

93. *Rasiowa-Sikorski Sets and Forcing*, in: Sergei Odintsov (ed.), *Larisa Maksimova on Implication, Interpolation, and Definability*, Outstanding Contributions to Logic, Vol. 15, Springer 2018, 117-153.

94. *Forcing for First-Order Languages from the Perspective of Rasiowa-Sikorski Lemma*, in: Damian Niwiński (ed.), *Memorial Book Dedicated to Professor Helena Rasiowa,* Fundamenta Informaticae 156 (2017), 255-280.

95. *The Equationally-Defined Commutator in Quasivarieties Generated by Two-Element Algebras*, in: Janusz Czelakowski (ed.), *Don Pigozzi on Abstract Algebraic Logic*, *Universal Algebra and Computer Science*, Outstanding Contributions to Logic, Springer 2018, 131-165, in print.

96. *The infinitely-valued Łuaksiewicz logic and probability*, Bulletin of the Section of Logic, in print.

97. *On the conflict of obligatory actions*. Submitted.

98. *Performability of actions*. Submitted.

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## MORE IMPORTANT REPORTS FROM RESEARCH PROJECTS

1. *Consequence Operations. Foundational Studies*, Institute of Philosphy and Sociology, Polish Academy od Sciences, Warsaw 1992. (An extended and modified version published as monograph 2.)

2. *Amalgamation and Interpolation in Abstract Algebraic Logic*, CRM, Bellaterra (Spain) 1996, 84 pages. Coauthor: Don Pigozzi. Preprint (published as 64).

3. Research project KBN 2H01A 00725. *Metody nieskończone w teorii definicji* (*Infinitistic methods in the theory of definitions*), Opole University, Opole 2004-2006.
   Part I. *Infinitistic definitions*, 130 pages (restricted ciculation)
   Part II. *Set-theoretic domains*, 155 pages (restricted circulation).

Janusz in 1972