

CURRICULUM VITAE

Ewa Orłowska

Present position

Professor at the National Institute of Telecommunications,
Szachowa 1, 04-894 Warsaw, Poland
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Education, degrees, and titles

1952-1957 studies in mathematics, M.S. 1957, University of Warsaw, Department of Mathematics and Physics.

1967-1970 postgraduate studies, Ph.D. 1971, with honors, University of Warsaw, Department of Mathematics, Mechanics and Computer Science, dissertation: "Theorem proving systems", supervisor: Helena Rasiowa.

1978 habilitation (D.Sc.), University of Warsaw, Department of Mathematics, Mechanics, and Computer Science, thesis: "Resolution systems and their applications".

1993 scientific title of professor.

Academic employment

1959-1966 research assistant at the Institute of Mathematical Machines and the Computation Centre of the Polish Academy of Sciences.

1971-1979 adiunkt (assistant professor) at the Section of Logic of the Department of Mathematics, University of Warsaw.

1980-1986 docent (associate professor) at the Institute of Computer Science of the Polish Academy of Sciences.

1987-1993 docent, 1993-1996 professor at the Institute of Theoretical and Applied Computer Science of the Polish Academy of Sciences.

July 1996-- professor at the National Institute of Telecommunications, Department of Advanced Information Technology, Warsaw.

Research interests

Nonclassical logics, philosophical logic, mathematical foundations of computer science, reasoning with incomplete information, automated theorem proving, duality theory.

Foreign academic visits, visiting professor

Austria: University of Salzburg 1985, 1986; University of Linz 1996.

Belgium: Universities of Gent, Brussels, Liege, and Leuven 1988.

Bulgaria: Sofia University 1985.

Canada: University of Victoria 1991, St. Francis Xavier University, Antigonish 2000 - F. W. James chair professor; Brock University 2002, 2003, 2005 .

Denmark: Aarhus University 1987.

Finland: Universities of Helsinki, Turku, and Tampere 1985; Universities of Kuopio and Oulu 1989.

France: CNRS Laboratoire Langages et Systemes Informatiques 1983; Institut National Polytechnique de Grenoble-Laboratoire d'Informatique Fondamentale et d'Intelligence Artificielle, Grenoble 1994, 1998; Universite Claude Bernard-Laboratoire Logique, Mathematiques Discretes, Informatique, Lyon 1994; Ecole Normale Superieure de Cachan, Paris 1999, 2000, 2001.

Germany: Technische Universitaet Berlin 1982; Universitaet Osnabrueck 1999; Univesitaet des Saarlandes – Max Planck Institut für Informatik, Saarbrücken 1999.

Great Britain: Oxford University 1986.

Hungary: University of Debrecen, 1992.

Italy: University of Rome 1994; University of Milan 1994, 1997.

Japan: Meji University, 1993.

Lithuania: Institute of Mathematics and Informatics, Vilnius 1988.

Northern Ireland: University of Ulster 1997, 2000.

The Netherlands: Tilburg University 2000.

Russia: Moscow University 1975, 1988.

South Africa: University of Cape Town, 1993; Witwatersrand University, Johannesburg, 2005.

Spain: Universitat de les Illes Balears, Palma de Mallorca 1991, University of Malaga, 2004.

USA: State University of New York at Stony Brook, City University of New York, 1995.

Membership of program committees of international conferences

Artificial Intelligence and Information-Control Systems of Robots, Strbske Pleso, Czechoslovakia, 1989.

Logics in Artificial Intelligence, European Workshop JELIA'90, Amsterdam, The Netherlands, 1990.

1st World Conference on the Fundamentals of Artificial Intelligence, Paris, France, 1991.

Logics in Artificial Intelligence, European Workshop JELIA'92, Berlin, Germany, 1992.

2nd International Workshop on Rough Sets and Knowledge Discovery, Banff, Canada, 1993.

6th International Conference on Artificial Intelligence: Methodology, Systems, Applications, Sofia, Bulgaria, 1994.

3rd International Workshop on Rough Sets and Soft Computing, San Jose, USA, 1994.

2nd World Conference on the Fundamentals of Artificial Intelligence, Paris, France, 1995.

Workshop on Rough Set Theory at the 2nd Annual Joint Conference on Information Sciences, Wrightsville, USA, 1995.

21st International Symposium on Mathematical Foundations of Computer Science, Krakow, Poland, 1996.

Artificial Intelligence and Symbolic Mathematical Computation, Steyr, Austria, 1996.

Mission Earth: Modeling and Computer Simulation for a Sustainable Global System, La Jolla, USA, 1996.

7th International Conference on Artificial Intelligence: Methodology, Systems, Applications, Sozopol, Bulgaria, 1996.

Logics in Artificial Inteligence, European Workshop JELIA'96, Evora, Portugal, 1996 (co-chair).

1st International Conference on Rough Sets and Current Trends in Computing, Warsaw, Poland, 1998.
Paraconsistent Logic, Logical Philosophy, Mathematics and Informatics Torun, Poland, 1998.
European Conference on Artificial Intelligence, Brighton, Great Britain, 1998.
COST 15 Conference, Ankara, Turkey, 1998.
Research for Information Society, Warsaw, Poland: 1998, 1999, 2000, 2001, 2002, 2003.
International Conference on Computational Intelligence - 6th Fuzzy Days, Dortmund, Germany, 1999.
Joint Conference of EUSFLAT (the European Society for Fuzzy Logic and Technology) and ESTYLF (Spanish Conference on Fuzzy Logic and Technology), Palma de Mallorca, Spain, 1999.
Artificial Intelligence and Symbolic Computation: Salzburg, Austria, 2000; Marseille, France 2002.
2nd International Conference on Rough Sets and Current Trends in Computing, Banff, Canada, 2000.
31st IEEE International Symposium on Multiple Valued Logic, Warsaw, Poland, 2001 (program co-chair).
Conference of the European Society for Fuzzy Logic and Technology – EUSFLAT, Leicester, England, 2001.
6th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU-2001), Toulouse, France.
International Conference on Computational Intelligence - 7th Fuzzy Days, Dortmund, Germany, 2001.
6th International Workshop on Relational Methods in Computer Science RelMiCS'6, Oisterwijk, the Netherlands, 2001.
Tarski Centenary Conference, Warsaw 2001.
3rd International Conference on Rough Sets and Current Trends in Computing, Penn State Great Valley, USA, 2002.
7th International Workshop on Relational Methods in Computer Science RelMiCS'7, Malente, Germany, 2003.
9th International Workshop on Rough Sets, Fuzzy Sets, Data Mining and Granular Computing, Chongqing, China, 2003.
4th International Conference JIM'2003 Knowledge Discovery and Discrete Mathematics, Metz, France.
4th International Conference on Rough Sets and Current Trends in Computing (RSCTC'2004), Uppsala, Sweden, 2004.
International Conference on Computational Intelligence -8th Fuzzy Days, Dortmund, Germany, 2004.
8th International Seminar on Relational Methods in Computer Science RelMiCS'8, St. Catharines, Ontario, Canada, 2005.
8th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU 2005), Barcelona, Spain.
5th International Conference on Rough Sets and Current Trends in Computing (RSCTC'2005), Regina, Canada, 2005.
International Conference on Computational Intelligence - 9th Fuzzy Days, Dortmund, Germany, 2006.
9th International Seminar on Relational Methods in Computer Science RelMiCS'9, Manchester, UK, 2006.
1st International Conference on Knowledge Science, Engineering and Management (KSEM'2006), August 5-8, 2006, Guilin City, China.
5th International Conference on Rough Sets and Current Trends in Computing (RSCTC'2006), Kobe, Japan, 5-8 November, 2006

2nd International Conference on Knowledge Science, Engineering, and Management, (KSEM'2007), Melbourne, Australia, 28-30 November, 2007.

Joint Rough Sets Symposium JRS07, Toronto, Canada, May 14-16, 2007.

9th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU-2007) 31 October – 2 November, 2007, Hammamet, Tunisia.

10th International Seminar on Relational Methods in Computer Science (RelMiCS'10) and Applications of Kleene Algebra (AKA), April 6 - 11, 2008, Frauenchiemsee (near Munich, Germany).

Rough Sets and Emerging Intelligent Systems Paradigms. In memoriam Zdzisław Pawlak, 28-30 June, 2007.

3rd International Conference on Rough Sets and Knowledge Technology (RSKT'08), May 17-19, 2008, Chengdu, China.

12th International Conference on Rough Sets, Fuzzy Sets, Data Mining and Granular Computing RSFDGrC'09, 16-18 December, Delhi, India

3rd International Conference on Knowledge Science, Engineering and Management (KSEM'2009), 25-27 November 2009, Vienna, Austria.

10th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU-2009), 1-3 July 2009, Verona, Italy.

11th International Conference on Relational Methods in Computer Science (RelMiCS'11) and Applications of Kleene Algebra (AKA), 1-5 November, 2009, Doha, Qatar.

International Symposium on Logic, Reasoning, and Rationality, September 20-22, 2010, Ghent, Belgium.

11th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU-2011), 29th June -1st July, 2011, Belfast, Northern Ireland.

M4M – Methods for Modalities, November 9-12, 2011, Osuna, Spain

12th International Conference on Relational and Algebraic Methods in Computer Science (RAMiCS 12), 30 May-3 June, 2011, Rotterdam, the Netherlands.

12th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU-2013), July 7 -10, 2013, Utrecht, The Netherlands.

13th International Conference on Relational and Algebraic Methods in Computer Science (RAMiCS 13), Cambridge, UK, 17-20 September, 2012.

14th International Conference on Relational and Algebraic Methods in Computer Science (RAMiCS 14), Marienstatt im Westerwald, Germany, 28 April – 1 May 2014.

15th International Conference on Relational and Algebraic Methods in Computer Science (RAMiCS 15), Braga, Portugal, 28 September – 2 October 2015

13th European Conference on Symbolic and Quantitative Approaches to Reasoning with Uncertainty (ECSQARU-2015) Compiègne, France, 15-17 July 2015.

Membership of Advisory Boards and Steering Committees

5th International Conference on Rough Sets and Current Trends in Computing (RSCTC'2006) Kobe, Japan, November 5-8, 2006.

Relational and Algebraic Methods in Computer Science.

Invited speaker

Alternatives of Logic Programming, Kuopio, Finland, 1989.

Non-Classical Logics and Information Processing, Berlin, Germany, 1990.

Automated Theorem Proving for Non-Classical Logics, Victoria, Canada, 1991.

21st IEEE International Symposium on Multiple-Valued Logic, Victoria, Canada, 1991.

Fundamentals of Artificial Intelligence Research, Smolenice Castle, Czechoslovakia, 1991.

Logic and Information, Konstanz, Germany, 1992.

2nd International Workshop on Rough Sets and Knowledge Discovery, Banff, Canada, 1993.

Logic in Artificial Intelligence, European Workshop JELIA'94, York, Great Britain, 1994.

3rd International Workshop on Rough Sets and Soft Computing, San Jose, USA, 1994.

4th International Conference on Algebraic Methodology and Software Technology, Montreal, Canada, 1995.

Many-Valued Logics for Computer Science Applications, Lyon, France, 1995.

17th Linz Seminar on Fuzzy Set Theory: Fuzzy Sets, Logics and Artificial Intelligence, Linz, Austria, 1996.

27th IEEE International Symposium on Multiple-Valued Logic, Antigonish, Canada, 1997.

International Conference on Knowledge, Logic, Information, Darmstadt, Germany, 1998.

30th IEEE International Symposium on Multiple Valued Logic, Portland, Oregon, USA, 2000.

The Logic of Soft Computing, Gargnano, Italy, 2001.

The Logic of Soft Computing II, Anacapri, Italy, 2002.

12th International Congress of Logic, Methodology and Philosophy of Science, Oviedo, Spain, 2003.

Workshop on Constructive Negation, Dresden, Germany, 2004.

The Challenge of Semantics, Exploratory workshop of the European Science Foundation, Vienna, 2004.

8th International Workshop on Relational Methods in Computer Science RelMiCS'8, St. Catharines, Ontario, Canada, 2005.

The Logic of Soft Computing, Malaga, Spain, 12-16 September, 2006

9th Fuzzy Days, Dortmund, Germany, 18-20 September, 2006

International Workshop on Similarity and Preferences, Udine, Italy, 5-7 October, 2006.

Rough Sets and Emerging Intelligent Systems Paradigms. In memoriam Zdzisław Pawlak, 28-30 June, 2007.

3rd Workshop on Rough Set Theory, 14-16 September, 2011, Milan, Italy.

Organisation of conferences and seminars

Seminar 'Soft Computing and Telecommunications', National Institute of Telecommunications, Warsaw, 1997.

4th International Seminar RelMiCS'4: Relational Methods in Logic, Algebra and Computer Science, Stefan Banach International Mathematical Centre and National Institute of Telecommunications, Warsaw, 1998.

COST Action 15 seminar, National Institute of Telecommunications, Warsaw, 1998.

Seminar of the Polish Association of Logic and Philosophy of Science dedicated to the memory of Jerzy Łoś, Warsaw, 1998.

Affiliated Symposium 'Many-Valued Logics for Computer Science Applications' at the 11th International Congress of Logic, Methodology and Philosophy of Science, Kraków, 1999.

Workshop 'Theory and Applications of Multiple Valued Logic' accompanying the 31st IEEE International Symposium on Multiple Valued Logic, Warsaw, 2001.

Awards

Ministry of Science and Education award for the doctoral dissertation, 1972.

Award for the best paper on knowledge representation at the European Conference on Artificial Intelligence, Pisa, Italy, 1984, for the paper "DAL-a logic for data analysis" (joint with L.Farinas del Cerro).

Membership of scientific organizations

Association for Symbolic Logic 1973-1978.

Foundation of Logic, Language, Information 1992--, 1994-1996 member of the Nominating Committee.

Polish Association of Logic and Philosophy of Science 1993--t, 1993-1995 member of the Council, 1996-1999 President, 1999-2002 member of the Executive Committee, 2003-2006 chair of the Council.

Assessor in the Council of the Division of Logic, Methodology and Philosophy of Science of the International Union of History and Philosophy of Science, assessor 1999-2003.

Membership of editorial boards

Bulletin of the Section of Logic 1972-1975.

Studia Logica 1989--, 1989-1991 chair of the editorial board.

Computerized Logic Teaching Bulletin 1988-1991.

Applied Non-Classical Logics Bulletin 1987-1990.

Journal of Applied Non-Classical Logics 1989--

Logic Journal of the Interest Group in Pure and Applied Logics 1993-2009.

Multiple-Valued Logic and Soft Computing 1997-2015.

Journal of Telecommunications and Information Technology, 2000--.

Transactions on Rough Sets, LNCS Journal Subline, 2011--.

Trends in Logic, Springer book series, 2002--.

Participation in national and international projects

Governmental project 'Problem węzłowy' 05.1.1, and 06.1.1, project 04.4.01 'Mathematical foundations of the theory of algorithms, algebraic methods in the theory of algorithms and mechanisation of building models of theories', 1971-1976.

Ministry of Science and Education project RPBP III.24 'Logical systems and algorithms for computer verification of proofs', 1986-1990, member of the Coordinating Council, 1989-1990 chair of the Coordinating Council.

Grant of the State Committee for Scientific Research (KBN) No 8S50300705, July 1993 - June 1995, for the project 'Relational proof systems for information logics', team leader.

Grant of the State Committee for Scientific Research (KBN) No 8T11C04010, 1996-1998, for the project 'Knowledge representation: Many-valuedness of information and non-monotonicity of inferences in logics of artificial intelligence and in rough set theory', team leader.

Grant of the State Committee for Scientific Research (KBN) No 8T11C01617, July 1999-June 2002, for the project 'Methods of reasoning for hybrid fuzzy – rough systems', team leader.

TEMPUS project JEP 4323 'Advanced Didactic Environments for Higher Information Technology Education', August 1992-August 1994, representative of the Institute of Theoretical and Applied Computer Science of the Polish Academy of Sciences.

COST Action No 15 'Many-Valued Logics for Computer Science Applications', 1994-1999, member of the Management Committee.

Polish-French Joint Research Collaboration Programme POLONIUM:

Joint project with Laboratoire LEIBNIZ, Institut National Polytechnique de Grenoble, project No 9704 'Rough set-based reasoning with incomplete information: some aspects of mechanisation', 1997-1998, Polish team leader.

Polish-British Joint Research Collaboration Programme:

Joint projects with the University of Ulster, No WAR/992/151 1998, No WAR/992/174 1999 - 2001 'Uncertainty Management in Information Systems: Foundations and Applications of Non-invasive Methods', Polish team leader.

COST Action No 274 'Relational Structures as Knowledge Instruments', 2001- 2004, member of the Management Committee, coordinator of the Working Group 1 on 'Logical and Algebraic Foundations of Real Life Relations'.

NATO Cooperative Linkages Grant: NATO-PST-CLG 977641 'Relational Models and Associated Deduction Mechanisms for Multimedia Information', April 2001-April 2003, host institution St. Francis Xavier University, Antigonish, Nova Scotia, Canada.

INTAS project 04-77-7080 'Algebraic and Deduction Methods in Non-classical Logic and their Applications to Computer Science, May 2005 – April 2007.

Scientific and Technological Cooperation joint project with the Republic of South Africa, Department of Mathematics, University of Witwatersrand and Department of Mathematics and Statistics, Rand Afrikaans University, 'Logical and Algebraic Methods in Formal Information Systems', 2004-2005.

Scientific and Technological Cooperation joint project with the Republic of South Africa, Department of Mathematics, University of Stellenbosch, 'Duality Theory as a Tool for Relational Knowledge Representation', 2006-2008.

Polish Ministry of Science and Higher Education grant N N206 399134, May 2008 – April 2010, for the project 'Semantic issues in non-classical logics for approximate reasoning', host institution Department of Mathematics, Informatics and Mechanics of the University of Warsaw.

Project of the National Centre for Science 'Logics for Qualitative Reasoning', June 2002-May 2017, host institution Institute of Philosophy and Sociology of the University of Warsaw.

Membership of Scientific Councils and Committees

Institute of Theoretical and Applied Computer Science of the Polish Academy of Sciences 1986-1998;
National Institute of Telecommunications, Warsaw, Poland, 1997--2006, 2011;
International Committee of the E. W. Beth Dissertation Prize (dissertations in the fields of Logic, Language, and Information), 2005, 2006, 2007.

Expert for

Research Executive Agency of the European Commission, 2008, 2009, 2010, 2011.

Monographs

Incomplete Information: Structure, Inference, Complexity (with S. Demri). EATCS Monographs in Theoretical Computer Science, Springer, 2002.

Dual Tableaux: Foundation, Methodology, Case Studies (with Joanna Golinska-Pilarek). Trends in Logic vol.33, Springer, 2011.

Dualities for Structures of Applied Logics (with Anna Maria Radzikowska and Ingrid Rewitzky). Studies in Logic, Mathematical Logic and Foundations vol. 56, College Publications, London, 2015.

Edited special issues of journals, conference proceedings and books.

Automated Reasoning in Non-Classical Logic. Special issue of *Logique et Analyse*, No 110-111, 1985, edited by L. Farinas del Cerro and E. Orłowska.

Reasoning with incomplete information. Special issue of *Studia Logica*, vol. 58 No 1, 1997, edited by H. Rasiowa and E. Orłowska

Journal of Applied Non-Classical Logics vol. 8 No 1-2, 1998, Special issue dedicated to the memory of Helena Rasiowa, edited by E. Orłowska.

Logics in Artificial Intelligence. Proceedings of the European Workshop JELIA'96, Lecture Notes in Artificial Intelligence 1126, Springer, 1996, edited by J. Alferes, L. Pereira and E. Orłowska.

Relational Methods in Logic, Algebra and Computer Science. Proceedings of the 4th International Seminar RelMiCS'98, edited by A. Szalas and E. Orłowska.

Incomplete Information: Rough Set Analysis. Springer-Physica Verlag, Heidelberg, 1997, edited by E. Orłowska.

Logic at Work. Physica Verlag, Heidelberg, 1998, edited by E. Orłowska.

Relational Methods for Computer Science Applications, Springer-Physica Verlag, Heidelberg, 2001, edited by E. Orłowska and A. Szalas.

Beyond Two: Theory and Applications of Multiple Valued Logic, Springer-Physica Verlag, Heidelberg, 2003, edited by M. Fitting and E. Orłowska.

Theory and Applications of Relational Structures as Knowledge Instruments, Lecture Notes in Computer Science 2929, Springer, 2003, edited by H.C. M. de Swart, E. Orłowska, M. Roubens, and G. Schmidt.

Journal of Applied Non-classical Logics 16, No 3-4, 2006, edited by E. Orłowska, A. Policriti, and A. Szalas.

Transactions on Rough Sets VI, Springer, 2007, edited by J. Peters, A. Skowron, I. Düntsch, J. Grzymala-Busse, E. Orłowska, and L. Polkowski.

Transactions on Rough Sets VII, Springer, 2007, edited by J. Peters, A. Skowron, W. Marek, E. Orłowska, R. Slowinski, and W. Ziarko.

Publications, book chapters, papers in conference proceedings, technical reports

Mechanical proof procedure for propositional calculus (with A. Ehrenfeucht).
Bulletin PAS XV, 1967, 25-35.

Mechanical proof procedure for the n-valued propositional calculus.
Bulletin PAS XV, 1967, 537-541.

Automatic theorem proving in a certain class of formulae of the predicate calculus.
Bulletin PAS XVII, 1969, 117-119.

Mechanical theorem proving in a certain class of formulae of the predicate calculus.
Studia Logica XXV, 1969, 17-29.

Theorem proving systems.
Proceedings of International Symposium and Summer School on Mathematical Foundations of Computer Science, CCPAS Reports, 1972, 1-6.

Threshold logic.
Bulletin of the Section of Logic 1, 1972, 20-27.
Studia Logica XXXIII, 1974, 1-9.

Theorem proving systems.
Dissertationes Mathematicae CIII. Polish Scientific Publishers, Warsaw, 1973, 55 pp.

On Jaskowski's method of suppositions.
Proceedings of the XX Conference on History of Logic, Krakow, Poland, 1974, 10-12.
Studia Logica XXXIV, 1975, 187-200.

Threshold Logic II.
Studia Logica XXXV, 1976, 243-247.

The Gentzen-style axiomatization of ω^+ -valued logic.
Studia Logica XXXV, 1976, 433-445.

An elimination of iteration quantifiers in a certain class of algorithmic formulas (with G. Mirkowska).
Fundamenta Informaticae I, 1977, 347-355.

On the problem posed by Horn.
Bulletin PAS XXV, 1977, 1067-1068.

Herbrand theorem for ω^+ -valued logic.
Bulletin PAS XXV, 1977, 1069-1071.

The resolution principle for ω^+ -valued logic.
Fundamenta Informaticae II, 1978, 1-15.

Resolution system for ω^+ -valued logic.
Bulletin of the Section of Logic VII, 1978, 68-74.

A generalization of the resolution principle.
Bulletin PAS XXVII, 1979, 227-234.

Systemy Herbranda automatycznego dowodzenia twierdzen (Herbrand style systems of automated theorem proving).
COPAN Polish Scientific Publishers Warsaw, 1979, 27 pp.

Resolution systems and their applications.
Part I. Fundamenta Informaticae III, 1980, 235-268. Part II. Ibidem III, 1980, 333-361.

Dependency of attributes in information systems.
ICS PAS Reports 425, 1980, 16 pp.

Expressive power of knowledge representation systems (with Z. Pawlak).
ICS PAS Reports 432, 1981, 31 pp.
International Journal of Man-Machine Studies 20, 1984, 485-500.

Knowledge representation systems (with E. Konrad and Z. Pawlak).
ICS PAS Reports 433, 1981, 44 pp.

Dynamic information systems.
ICS PAS Reports 434, 1981, 27 pp.
Fundamenta Informaticae V, 1982, 101-118.

Logic approach to information systems.
ICS PAS Reports 437, 1981, 34 pp.
Fundamenta Informaticae VIII, 1985, 359-378.

Logic with nondeterministic worlds semantics.
ICS PAS Reports 444, 1981, 19 pp.

Representation of nondeterministic information (with Z. Pawlak).
ICS PAS Reports 450, 1981, 23 pp.
Theoretical Computer Science 29, 1984, 27-39.

On approximate concept learning (with E. Konrad and Z. Pawlak).
Technische Universitaet Berlin, Bericht Nr.81/87, 1981, 21 pp.
Proceedings of the European Conference on AI, Orsay, France, 1982.

On some extensions of dynamic logic.
Lecture Notes in Computer Science 148, Springer, 1983, 205-212.

Logiki programow (Logics of programs).
Ruch Filozoficzny XL, 1982, 17-25.

Semantics of vague concepts.
ICS PAS Reports 450, 1982, 20 pp.
Abstracts of the 7th International Congress of Logic, Methodology and Philosophy of Science, Salzburg, Austria, 1983 vol.2, 127-130.
In: Dorn, G. and Weingartner, P.(eds) Foundations of Logic and Linguistics. Problems and Solutions. Selected contributions to the 7th International Congress of Logic, Methodology and Philosophy of Science, Salzburg 1983. Plenum Press, London/New York, 465-482.

Logic of vague concepts.
ICS PAS Reports 474, 1982, 16 pp.
Bulletin of the Section of Logic 11 No 3/4, 1982, 115-126.

Languages of approximate information.
ICS PAS Reports 479, 1982, 23pp.

Representation of temporal information.
ICS PAS Reports 484, 1982, 19 pp.
International Journal of Computer and Information Sciences 11, 1982, 397-408.

Tense logic for nondeterministic time.
Bulletin of the Section of Logic 11, 1982, 127-133.

Representation of vague information.
ICS PAS Reports 503, 1983, 28 pp.
Information Systems 13, 1988, 167-174.

Measurement and indiscernibility (with Z. Pawlak).
ICS PAS Reports 509, 1983, 16 pp.
Bulletin PAS 32, 1984, 617-624.

Algebraic approach to database constraints.
Langages et Systemes Informatiques, Report 182, 1983, 19pp
Fundamenta Informaticae X, 1987, 57-68.

DAL-a logic for data analysis (with L. Farinas del Cerro).
Langages et Systemes Informatiques, Report 183, 1983, 26 pp.
Proceedings of the European Conference on AI, Pisa, Italy, 1984, 285-294.
Proceedings of the International Congress on Fifth Generation Computer Systems, Tokyo, Japan, 1984,
254-261.
Theoretical Computer Science 36, 1985, 251-264. Corrigendum: ibidem 47, 1986 p. 345.

Dependencies of attributes in Pawlak's information systems.
Fundamenta Informaticae VI No 3/4, 1983, 247-256.

Logika Montague-semantyka języka naturalnego (Montague logic-semantics of natural language).
Ruch Filozoficzny XLII No 1/2, 1985, 25-36.

Modal logics in the theory of information systems.
Zeitschrift für Mathematische Logik und Grundlagen der Mathematik 30, 1984, 213-222.

Logical foundations of knowledge representation (with Z. Pawlak).
ICS PAS Reports 537, 1984, 106 pp.

Logic of nondeterministic information.
ICS PAS Reports 545, 1984, 18 pp.
Studia Logica XLIV, 1985, 93-102.

Reasoning about database constraints.
ICS PAS Reports 543 (1984), 19 pp.

Semantic analysis of inductive reasoning.
ICS PAS Reports 547 (1984), 20 pp.
In: Perzanowski, J.(ed) Essays on Logic and Philosophy.Proceedings of the XXX International
Conference on the History of Logic, Kraków, Poland.
Theoretical Computer Science 43, 1986, 81-89.

The Montague formalization of natural language.

ICS PAS Reports 548, 1984, 31 pp.

Mechanical proof methods for Post logics.

ICS PAS Reports 557, 1984, 36 pp.

Logique et Analyse 110-111, 1985, 173-192.

Mechanical reasoning in fuzzy logics (with S. Wierzchon).

ICS PAS Reports 551, 1984, 24 pp.

Logique et Analyse 110-111 (1985), 193-207.

Logic for structured states.

Fundamenta Informaticae VII, 1984, 349-355.

The Montague logic and its extensions.

In: Buszkowski, W., Marciszewski, W. and Van Benthem, J. (eds) *Categorical Grammar*. John Benjamins, Amsterdam/Philadelphia, 1988, 301-323.

Logic of indiscernibility relations.

ICS PAS Reports 546, 1985, 20 pp.

Lecture Notes in Computer Science 208, Springer, 1985, 177- 186.

Bulletin PAS 33, 1985, 475-485.

Relative induction.

Bulletin PAS 33, 1985, 469-473.

Semantics of nondeterministic possible worlds.

Bulletin PAS 33, 1985, 453-458.

A program logic with quantifiable propositional variables.

ICS PAS Reports 422, 1980, 24 pp.

Bulletin PAS 33, 1985, 459-467.

On the logic of database dependencies (with W. Buszkowski).

Proceedings of the 4th Hungarian Computer Science Conference, Gyor, Hungary, 1985, 373-383.

Bulletin PAS 34, 1986, 345-354.

Kripke models with relative accessibility.

ICS PAS Reports 569, 1985, 19 pp.

Relational calculus and data dependencies (with W. Buszkowski).

ICS PAS Reports 578, 1986, 42 pp.

Semantic considerations on relevance (with P. Weingartner).

ICS PAS Report 582, 1986, 17 pp.

In: Lenzen, W. (ed) *Das weite Spektrum der analytischen Philosophie. Festschrift fuer Franz von Kutschera*. Walter de Gruyter, Berlin/New York, 1997, 250-261.

Logic for reasoning about knowledge.

ICS PAS Report 594, 1986, 19 pp.

Bulletin of the Section of Logic 16, No 1, 1987, 26-38.

Proceedings of the European Workshop on Logical Methods in Artificial Intelligence, Roskoff, France, June 1988, 100-104.

Zeitschrift fur Mathematische Logik und Grundlagen der Mathematik 35, 1989, 559-572.

Logical aspects of learning concepts.

Proceedings of AI workshop Inductive Reasoning: Managing Empirical Information in AI Systems, Roskilde, Denmark, 1987.

Journal of Approximate Reasoning 2, 1988, 349-364.

Semantics of knowledge operators.

Abstracts of the 8th International Congress of Logic, Methodology and Philosophy of Science, Moscow, USSR, 1987, vol. 5, part 3, 266-269.

Bulletin PAS 35, 1987, 255-263.

A logic with relevant implication.

Bulletin of the Section of Logic 16, 1987, 39-45.

Bulletin PAS 35, 1987, 265-271.

Formalne aspekty analizy pojec (Formal aspects of concept analysis).

Studia Filozoficzne (Philosophical Studies) 6-7 (271-272), 1988, 295-307.

Three aspects of verisimilitude.

Bulletin of the Section of Logic 16, 1987, Part I No 3, 96-106, Part II No 4, 140-150.

Relational interpretation of modal logics.

Bulletin of the Section of Logic 17 No 1, 1988, 2-14.

Proceedings of the Workshop on Alternatives of Logic Programming, Kuopio, Finland 1989, 75-105.

In: Andreka, H., Monk, D. and Nemeti, I. (eds) Algebraic Logic. Colloquia Mathematica Societatis Janos Bolyai 54, North Holland, Amsterdam, 1988, 443-471.

Abstract in the Journal of Symbolic Logic 57, 1992, p.322.

Reasoning about vague concepts.

Bulletin PAS 35, 1987, 643-652.

Entailment based on semantic relevance criteria.

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