Włodzisław Duch - Curriculum Vitae December 2025. Links to PDFs: CV (this document) | list of papers and list of conferences | Biograms: short biogram | biogram po polsku i w wersji PDF Google Profile | ORCID ID | Neurotree | arxiv page | Google list of videos, and my latest podcasts. Academic Genealogy Education and degrees Positions held Invited talks and presentations Address and personal Publications Computer experience Journals and professional associations Research Fields Conferences and schools Major grants Teaching Experience Resume Resume po polsku Tematy prac dr/mgr Department of Informatics, Institute of Technical Sciences, Faculty of Physics, Astronomy and Informatics Office (Katedra Informatyki Stosowanej, Wydział Fizyki, Astronomii i Informatyki Stosowanej) Neurocognitive Laboratory, Interdisciplinary Center of Modern Technologies, Laboratory Nicolaus Copernicus University (Uniwersytet Mikołaja Kopernika) address ul. Grudziadzka 5, 87-100 Toruń, Poland E-mail id: wduch, on the server umk.pl WWW: Google "Wlodek Duch" to find it, or type https://int.umk.pl/kis/~duch Tel: (48-56) 622 1543 or 611-3267 Personal Born: 1954 in Poland Married: 1976, Children: son 1978; daughter 1980;+4 grandchildren. data Nationality: Polish male (definitely) Sex: **Education, degrees and titles** Title of a "professor of theoretical physics and informatics" 1997 Habilitation (D.Sc.) in many body physics. Thesis title: Graphical representation of model spaces, 1987 published by Springer Verlag, Berlin (1986); thesis won the Ministry of Education Award. PhD in quantum chemistry. Thesis title: Direct Configuration Interaction Method (Ministry of Education Award granted in 1981). Thesis advisor: Prof. dr 1980 hab. Jacek Karwowski. 1977-1980 Graduate study in quantum chemistry at the Nicolaus Copernicus University, Torun, Poland. Master of Science diploma (highest honors, "blue diploma"). 1977 Undergraduate study in physics at the Nicolaus Copernicus University, Torun, Poland. 1972-1977 **Academic Genealogy and my Neurotree** Positions held (one month or longer only) Head, Neuroinformatics and Artificial Intelligence group in the University Centre of Excellence Dynamics, Mathematical Analysis and Artificial 2020-now Intelligence, at the Nicolaus Copernicus University. Chairman of the Polish-U.S. Fulbright Commission Board (przewodniczący Rady Komisji Fulbrighta), from 06/2015 to 30.11.2015. 2014-2015 Undersecretary of State (Vice-minister), in the Ministry of Science and Higher Education, from 22.04.2014 to 30.11.2015. 2014-2015 Head, Neurocognitive Laboratory, Interdisciplinary Center of Modern Technologies, Nicolaus Copernicus University 2013-now Vice-President for Research and ICT Infrastructure, and Deputy President of the Nicolaus Copernicus University 2012-2014 (Prorektor ds. Badań Naukowych i Informatyzacji UMK); from 09/2012 to 05/2014. Nanyang Visiting Professor, Nanyang Technological University, School of Computer Engineering, 2010-2012 Division of Software & Information Systems, Singapore (4 month/year). Visiting Professor, Nanyang Technological University, School of Computer Engineering, 2004-2007 Department of Computer Science, Singapore (6 month each year). Senior Fellow, Nanyang Technological University, School of Computer Engineering, 2003 Department of Computer Science, Singapore (1 year sabbatical). Visiting Professor, Dept. of Biomedical Informatics, Cincinnati Children's Research Foundation, USA. 10 times, 2-4 weeks 2002-2009 President, Executive Board of the Kopernik.pl company (March 2001, the company existed till the end of 2002). 2001-2002 Professor Ordinarius (Profesor zwyczajny), Nicolaus Copernicus University (UMK), head of the Department of Informatics, Torun, Poland; 2000-now teaching, research, administration, member of countless committees. President, DuchSoft research and development company, creation of GhostMiner data mining software taken over by Fujitsu. 1998-2008 Associate Professor (Profesor Nadzwyczajny), Nicolaus Copernicus University (UMK), head of the Department of Computer Methods, Torun, Poland; 1990-1999 teaching, research, administration, member of countless committees. 1996-2001 Visiting Scientist, Max-Planck-Institut für Astrophysik (MPA), Garching b. München, Germany; 1-2 month each year, research. Visiting Professor, Meiji University, Department of Computer Science, Kawasaki, Tokyo, Japan; 1 month, research. 2000 Visiting Scientist, Max-Planck-Institut für Psychological Research (MPPF), München, Germany; 1 month, research. 1997 Visiting Professor, LSIIT, Artificial Intelligence Department, Louis Pasteur Universite, Strasbourg, France, 1 month, research. Senior Research Fellow, Kyushu Institute of Technology, Faculty of Computer Science and Systems Engineering, 1996 lizuka, Fukuoka, Japan; 3 month, research. Visiting Scientist, Center for Neural Networks, King's College, London, and IUT, Université de Champagne, Reims, France, research. 1995 Senior Research Fellow, Rikkyo University, Department of Chemistry, Tokyo, Japan; 3 month, research. 1994 Visiting Scientist, Max-Planck-Institut für Astrophysik (MPA), Garching b. München, Germany; 2 month each year, research. 1992-1994 1992 Visiting Professor, Department of Chemistry, University of Alberta, Edmonton, Canada; 1 month, research. Visiting Professor, Department of Chemistry, University of Alberta, Edmonton, Canada; 5 weeks, research. 1991 Visiting Professor, Quantum Theory Project, University of Florida, Gainesville, Florida, USA; 6 weeks, research. 1990 Visiting Scientist, Max-Planck-Institut für Astrophysik (MPA), Garching b. München; 3 month each year, research. 1989-1991 Visiting Professor, Department of Chemistry, University of Southern California, Los Angeles, California; 1.5 month, research. 1988 Visiting Scientist, Max-Planck-Institut für Astrophysik (MPA), Garching b. München, Germany; 1.5 month, research. 1988-1991 Vice-president for computing, Nicolaus Copernicus University. Associate Professor (Docent), Nicolaus Copernicus University, Institute of Physics, Toruń, Poland; teaching, research, administration. 1988-1990 Visiting Scientist, Institute of Theoretical Physics, Stockholm University, Stockholm, Sweden; 1 month, research; 1987 Visiting Scientist, MPA; 3 month, research. 1985-1987 Alexander von Humboldt Fellow. Max-Planck-Institut für Astrophysik (MPA), Garching b. München, Germany; 1.5 years, research. Adiunkt (Assistant Professor), Institute of Physics, Nicolaus Copernicus University, Torun, Poland; teaching and research. 1984-1988 Visiting Scientist, Max-Planck-Institut für Astrophysik (MPA), Garching b. München, Germany; 3 months, research. 1984 Starszy Asystent (Senior Assistant), Institute of Physics, Nicolaus Copernicus University, Torun, Poland; teaching and research. 1982-1984 Postdoctoral fellow, Department of Chemistry, University of Southern California (USC), Los Angeles, California, USA; 2 years, research. 1980-1982 Asystent (Teaching Assistant), Institute of Physics, Nicolaus Copernicus University, Toruń, Poland; teaching and research. 1980 Journals - editorial boards 1. Annals of Computer Science and Information Systems, Polish Information Processing Society (2018) 2. Artificial Intelligence in Health (2023). 3. Behavioral and Brain Sciences, BBS associate, 2003-2010 4. Behaviormetrika (Springer), advisory board, since 2017 5. Cognitive Computation (Springer), since 2012 6. Cognitive Neurodynamics (Springer), since 2006, now 2019-2021 term 7. Computer Physics Communications (Elsevier, North Holland), Special Editor (1994-2007) 8. Frontiers in Human Neuroscience (Frontiers, Basel, Switzerland), Special Editor (2023). 9. IEEE Transactions on Neural Networks, books and media editor, appointed 2000, 2002, 2004, 2006-2008 (list of reviews) 10. International Journal of Computational Intelligence, editor (2004-2006) 11. International Journal of Information Technology and Intelligent Computing, editor, 2006-2008 12. International Journal of Neural Systems (IJNS), World Scientific, Editorial Advisory Board 2005-2010 13. International Journal of Signal Processing, editor (2004-2006) 14. International Journal of Transpersonal Studies, editor 2001-2015 15. Journal of Artificial General Intelligence (JAGI), since 2008 16. Journal of Artificial Intelligence and Soft Computing Research, since 2009 17. Journal of Mind and Behavior, assessing editor, since 2002 18. <u>Journal of Neurophilosophy</u>, editorial board, since 2022 19. Machine Graphics and Vision, 2003-2010 20. Natural Intelligence: the INNS Magazine, 2011-12 21. Neural Information Processing Letters and Reviews, since 2003-08 22. Nonlinear Biomedical Physics, Open Access journal (BioMed Central, London), since 2006, in 2012 re-launched as the European Physical Journal (EPJ) Nonlinear Biomedical Physics. 23. Scientia et Fides, Scientific Council, since 2015 24. Theoria et Historia Scientiarum, since 2014 25. Handbook of Natural Computing: Theory, Experiments, and Applications, Springer, advisory board, since 2008 In Polish: 26. Kognitywistyka i Media w Edukacji (Cognitive Science and Media in Education), scientific secretary, 1998-2012 27. Avant. Trends in Interdisciplinary Studies, head of scientific board, since 2011 28. Studia z Kognitywistyki i Filozofii Umysłu, UAM, since 2015 **Professional associations** Fellow of: 1. Asia-Pacific Artificial Intelligence Association, Fellow (since 2022) 2. European Neural Network Society; now active as past President; President 2006-2008, second term 2009-2011; President-elect 2005; member of the executive committee 2001-2004; individual ENNS member since 1993. 3. International Artificial Intelligence Industry Alliance, AIIA Fellow, elected 2/2024. 4. International Neural Network Society; INNS Board of Governors member, 2003; elected to the College of Fellows (2013) 5. World Academy of Artificial Consciousness (WAAC), Fellow (since 2025). 6. European Union COST Action BM0605: Consciousness: A Transdisciplinary, Integrated Approach, since 2008. 7. EU COST Action BM601 Neuromath, Advanced Methods for the Estimation of Human Brain Activity and Connectivity, since 2007. 8. EU COST Action B27 Electric neuronal oscillations and cognition (ENOC) working group, 2006-08. 9. EU COST IntelliCIS (Intelligent Monitoring, Control and Security of Critical Infra-structure Systems) Action IC0806, 2009. 10. EUCog II - 2nd European Network for the Advancement of Artificial Cognitive Systems, Interaction and Robotics. 11. European Union expert in the Horizon 2020 Program (FET proposals), 2014-now. 12. European Union expert in the 7th Framework Program (FET proposals), 2007-13. 13. European Union expert in the 6th Framework Program in the "Life Sciences" panel, 2003-05. 14. European Union expert in the 5th Framework Program in the "Life Sciences" panel, Marie Curie program, 2000-02. 15. Polish Committee of Scientific Research, reviewer for VIII (1994), IX (1995), X (1996) call, section (T11E) "Medical Technologies" 16. Reviewer of the Foundation for Polish Science (Homing +, MPD, Pomost, Venture, Welcome, Team, FNP Prize) | The National Centre for Research and Development (Lider) | National Science Center | and the Polish Ministry of Education. Reviewer of the Konorski Prize, Polish Academy of Sciences, Committee of Neurobiology. Reviewer of the NAWA-STER Programs, Ministry of Science and Education (2020, 2021) 17. Association for Computing Machinery (ACM) individual member since 1990. 18. <u>EIT Health</u>, high level expert group <u>Think Tank member</u> of the European Institute of Innovation & Technology (2017-2021). 19. European Physical Society, individual member since 1984. 20. IEEE Life Senior Member (2025), Senior Member since 2002, Member since 1997. 21. IEEE Computational Intelligence Society, CIS Technical Committee member since 2003; Neural Networks Pioneer Award sub-committee (2012). 22. IEEE Neural Network Society (previously NN Council), active member since 6/1997, current NN Technical Committee and previous NNTC member 23. IEEE Signal Processing Society, since 2015. 24. IEEE Towards Human-like Intelligence, Computational Intelligence Society Task Force, vice-president (since 2012) 25. Interdisciplinary Centre for Mathematical and Computational Modelling (ICM), Scientific Council (2017-2022). 26. International Association for Information and Management Sciences (IMS), vice-president 2010-2013. 27. International Brain Research Foundation, member of the International Advisory Board. 28. Brain-Mind Institute, USA, Program Committee (since 2011) 29. Lifeboat Foundation, member of the Scientific Advisory Board 30. Open Systems and Information Dynamics Society, initially "Polish-Japanese-Italian Society"; member of the board, 1992-1995 and 1999-2003 (elections are every year); OSID journal now published by World Scientific. 31. Polish Academy of Sciences, Computational Physics Section, Sekcja Nauk Obliczeniowych, Founding member (1997), vice-president (2001-05). 32. Polish Academy of Sciences, Committee on Automatics and Robotics, Neural Networks and Fuzzy Logic, Sekcja Automatyki, Robotyki, Sieci Neuronowych i Logiki Rozmytej, member (since 2000). 33. Polish Academy of Sciences, Komitet Informatyki, Sekcja Nauk Obliczeniowych (Computational Science Section), member of the board, 2009-2010. 34. Polish Academy of Sciences, Committee on Informatics, member 2020-23; ; 2024-26 Computational, Bio and Neuro-informatics Subgroup. 35. Polish Academy of Sciences, Komitet Neurobiologii (Committee of Neurobiology), member of the board, 2007-10; 2011-15; 2015-19; 2020-23; 2024-26 36. Polish Academy of Sciences, Komitet Naukoznawstwa (Committee on Science Studies), 2015-19; 2020-23; 2024-26. 37. Polish Chemical Society; Quantum Chemistry section, Sekcja Chemii Kwantowej, 1980-1990. 38. Polish Cognitive Science Society, Polskie Towarzystwo Kognitywistyczne; founding member, on the executive board 2002-2004. 39. Polish Academy of Arts and Sciences (Polska Akademia Umiejętności, PAU), Committee on Complex Systems (Komisja Układów Złożonych); since 2019, . 40. Polish Neural Network Society, Polskie Towarzystwo Sieci Neuronowych; founding member, on the board since 1995, last election in 2019. 41. Polish Artificial Intelligence Society; Polskie Stowarzyszenie Sztucznej Inteligencji, founding member, 2010, Scientific Committee member 42. Rada Koordynująca Polskiego Porozumienia na Rzecz Rozwoju sztucznej Inteligencji (PP-RAI) (Coordination Council of the Polish Initiative for the Advancement of Artificial Intelligence) 2018 43. Polish Physical Society, Polskie Towarzystwo Fizyczne; member since 1977, secretary of the Torun chapter 1989-91; member of the board 1988-1992. 44. Polish Transpersonal Society, Polskie Towarzystwo Transpersonalne; founding member 1993. 45. Societas Humboldiana Polonorum, member since 1993, president of the Toruń branch 2016-2018 46. Nicolaus Copernicus University, member of the Professor's Club, since 2001, vice-president 2012-16. **Advisory Boards, Scientific Councils** 47. Sapiens Lab, member of the International Advisory Board 2018. Mission: to accelerate insights into the spectrum of brain dynamics across the breadth of humanity. 48. SRM Deemed University, Chennai, India, member of the International Advisory Board, 2004-2012. 49. INEB-Instituto de Engenharia Biomédica, Porto, Portugal, external advisory council, 2008-13. 50. ABM Space Education, Chief Creative Officer (2011). 51. Scientific Committee of the Institute for Child Development in Gdańsk (2018). 52. CLAIR Green Member Lab 53. Nominator: Nobel Prize in Physics 54. Nominator: VinFuture Prize 55. Kujawsko-Pomorskie Centrum Badawczo-Technologiczne, sp. z o.o., member of Scientific Council (12/2021). 56. Medical University of Łodź, member of the "Drzewo Pokoleń" competition council, 2016-2018. 57. Polska Unia Edukacyjna, członek Rady Centrum doskonałości dydaktycznej i naukowej (2024). **Awards for inventions:**

Gold medal: Médailles d'Or du Concours Lêpine & Prix Chambre et Sênat – Systeme de soutien au dêveloppement perceptivo-cognitif

and Danielle S. Bassett. <u>Dynamic reconfiguration of functional brain network during working memory training</u>. <u>Nature Communications</u> 11, 2435 (2020)

symbolic algebra languages Mathematica, Maple, Reduce, HTML, SPEAKEAZY, dBase IV and older, Lotus 123, Framework IV and older.

MS Office, Lotus Smartsuite, TeX and LaTeX typesetting systems, various DOS shells, many statistical and other application packages.

Cognitive science, introductory courses, including philosophy of mind, neurobiology, brain and behavior, computational neuropsychology.

Physics, basic and advanced quantum mechanics, field theory (classical), foundations of physics, elementary and advanced quantum chemistry,

Computer science, introductory courses, introductory programming courses in Fortran, Pascal, Logo, applications and networking.

technology, brain research, psychology, artificial intelligence, cognitive science, science-fiction, Hi-Fi and digital sound/video.

psychology, large scale simulations of brain functions, human-computer interaction, humanized software interfaces.

• Philosophy of mind, foundations of physics, quantum computing, philosophical problems of physics, history of physics.

Informational dynamics: concept of information, brain-mind transition, theory of complex systems.

SINTELNET, EU FET Coordination Project in Social Intelligence

Argumentation as cognitive process, UMK - Rutgers University

Beyond the Horizon, EU FP7 FET Proactive Consultation Panel

Rikkyo University, Tokyo, Research Award, 3 month, about 13.000 \$.

Confluence of humans and computers, EU FP7 FET Proactive Consultation Panel

Similarity-based reasoning systems with applications in science and medicine.

COST Action BM0605 "Consciousness: A Transdisciplinary, Integrated Approach", EU COST Project

COST Action B27 Group, "Electric neuronal oscillations and cognition (ENOC)", EU COST Project

Kyushu Institute of Technology, Heiwa Nakajima Foundation Research Award, 3 month, about 18.000 \$.

Alexander von Humboldt Stiftung, Germany; "Application of symmetric group methods in quantum chemistry",

Participant, large multidisciplinary collaborative grant, , Nicholas Copernicus University. PI: Jacek Matulewski.

Participant, large multidisciplinary collaborative grant, Nicholas Copernicus University. PI: Jarosław Meller.

research support for 18 months, additional support (around 20.000 DM) for equipment and books.

University Centre of Excellence. Thoughtful Heart 4.0: A holistic approach to the health crisis.

Universal meta-learning algorithms in computational intelligence. MNiSW, PI - N. Jankowski

Prototype-based logical rules with applications for data exploration. MNiSW, PI - M. Blachnik

Heterarchical methods of information search supported by lexical networks. MNiSW, PI - J. Szymanski

Theory and applications of computational intelligence. KBN, principal investigator, no. 8 T11C 006 19

Adaptive systems in applications to analysis of medical and psychometrical data, KBN, principal investigator

Grant from KBN to build Local Area Network in the Institute of Physics and Department of Informatics building,

KBN (State Committee for Scientific Research), "Development of configuration interaction method", principal investigator.

Application of similarity based methods to analysis of medical images. KBN, PhD grant for Karol Grudziński, no. 8 T11E 042 19

Sieci ontogeniczne - badania nad kontrolą złożoności sieci neuronowych, KBN, PhD grant for Norbert Jankowski, 19 750 zl

• Google Profile | Semantic Scholar | Research Gate | LinkedIn | Top H-index in Computer Science, Poland | Stanford Top 2%

Application of the neurofuzzy FSM system to analysis of experimental data. KBN, PhD grant for Rafał Adamczak, no. 8 T11F 019 19

Resortowy Program Badawczo-Rozwojowy RRI.14: "Budowa systemów oprogramowania profesjonalnego dla potrzeb nauki i dydaktyki:

symulacje komputerowe w fizyce" (computer simulations in physics; software development); local coordinator of the program supervising about 10

(computer methods in teaching and research); local coordinator of large program, planning and creation of 6 computer laboratories at the Nicolaus

Resortowy Program Badawczo-Rozwojowy RRI.14: "Informatyzacja procesów dydaktycznych i naukowo badawczych w szkołach wyższych"

BrainHeart. The influence of HRV-biofeedback training on dynamics of attentional processes and divergent thinking, NCN Preludium, PhD grant for Ewa

Mathematical Analysis and Artificial Intelligence, Nicholas Copernicus University.

intelligence, selection of relevant information, visualization of multidimensional data and relations, meta-learning techniques.

Distinction in the Jerzy Konorski Team Award 2020 competition, for the best study in neurobiology conducted in Poland, initiative of the Polish Neuroscience Society and

Committee of Neurobiology of the Polish Academy of Sciences. Paper by Karolina Finc, Kamil Bonna, Xiaosong He, David Lydon-Staley, Simone Kühn, Włodzisław Duch

UNIX (Standard, AIX, Sun OS/Solaris), MS Windows 3.1/95/NT/2000, MS-DOS, CP/M, TSO, CMS, IBM 360/370 systems JCL and utilities, CRAY system, VMS.

In no particular order: music of all kinds; musical instruments (collection of flutes, Electronic Wind Instrument - AkaiPro and Sylphyo EWIs with several synthesizers); scuba

• Neurocognitive informatics, or algorithms that are inspired by brain functions, including imagination, intuition, insight and creativity; neuroinformatics, analysis of brain

• Theory and applications of computational intelligence, including neural networks, similarity-based systems, relations with fuzzy systems, pattern recognition, artificial

• Natural language processing, computer linguistics, information retrieval and extraction, connections with human memory models, word games, medical informatics,

• Education: infant learning and development, testing cognitive, motor and perceptual functions, new educational programs, application of computers in education,

• Older research areas I was working on: Computer physics, computational methods of quantum chemistry, electron correlation problem, in particular variational

• Software engineering tools and methods, object-oriented programming; numerical analysis: partial diagonalization of very large sparse matrices.

• Group theory, including the symmetric and the unitary group theory, properties of non-abelian symmetry groups; theory of graphs, graphical representations of tensor

<u>EUCog</u> 1, 2, 3 - European Network for the Advancement of Artificial Cognitive Systems, Interaction and Robotic, FP7 coordination action

COST Action BM0601 NeuroMath "Advanced Methods For The Estimation Of Human Brain Activity And Connectivity", EU COST Project

2nd European Network for the Advancement of Artificial Cognitive Systems, Interaction and Robotics, FP7 EU Networks Project

Development of electron correlation methods based on intermediate hamiltonians. (principal investigator on the Polish side, with

CHIST-ERA Consortium "Beyond consciousness", EU FET Project consultant, Consciousness and Creativity in Brain-Inspired Cognitive Architectures

IBMBF-KBN POL-040-98, principal investigator on Polish side (IBMBF, Internationale Büro (IB) das Bundesministerium für Bildung und Forschung)

prof. J-P. Malrieu on the French side). Cooperation scientifique entre la France et la Pologne, KBN/Le ministre Francais des affaires etrangeres, No. 114

European Union COST project "Intelligent software for chemistry", W. Duch, first co-investigator, in collaboration with Max-Planck-Institut für Astrophysik

coordinator of the program. Participating institutions: Nicolaus Copernicus University (main beneficiary), University of Cambridge and University of Leeds

Paul Sabatiér University and Universite de Champagne in Reims (France), Max-Planck-Institut für Astrophysik and the Technical University of Munich

(Garching b. München, prof. Diercksen, principal investigator), Belfast (Ireland), Bratyslawa (Slovakia), Groningen (Holland), Leeds (UK) and Espoo

CEC TEMPUS Office, "Computer Based Education", 3 years; budget 196.000 ECU in 1992/3, 279.000 ECU in 1993/4 and 310.000 in 1994/5;

University Centre of Excellence. AI4MEDICINE: Artificial Intelligence (AI) and Machine Learning (ML) Approaches for Biomedical Data Analysis,

In the quest of sources of brain cognitive activity (W poszukiwaniu źródeł aktywności poznawczej mózgu). National Science Centre, Poland,

Development of phonematic hearing and working memory in infants and children (NeuroPerKog). NCN, principal investigator,

Large multidisciplinary collaborative grant, Leader of the Neuroinformatics and Artificial Intelligence Group. University Centre of Excellence. Dynamics,

Co-principal investigator, large multidisciplinary collaborative grant (over 1 mln Euro, consortium with Nencki Institute, PAS and World Hearing Center,

Hilbert spaces, nuclear physics theory, shell-model methods in nuclear physics; spin functions, construction, properties, spin-dependent problems; Jahn-Teller effect in

• Computational cognitive neuroscience, cognitive sciences, behavioral sciences, cognitive robotics, cognitive informatics, cognitive psychology, developmental

diving (holding Advanced Open Water Diver certificate), oriental philosophy (Chinese, Indian, Japanese, Korean), especially meditation schools, frontiers of science and

• Gold medal and Jury Cup: International Exhibition of Economic and Scientific Innovations INTARG, Krakow, June 2015

FORTRAN (Fortran 77 and 90) and WATFIVE interactive, various dialects of PASCAL, LOGO, BASIC; Matlab;

Artificial intelligence, computational intelligence, neural networks, machine learning, fuzzy and rough logic.

des nourrissons et des jeunes enfants. May 2015

Other awards:

Programming:

Applications:

List of PhD students.

Languages:

Popularization of science

My YouTube channel and my blog.

• Polish - mother language

signals, neuromodulation.

semantic internet.

Major Grants

2006-2014

2009-2012

2008-2012

2008-2012

2008-2010

2005-2007

1999-2001

2005

1996

1995

1995

1994

1992-1995

1986-1987

2026-2029

2026-2029

2019-2026

2017-2025

2013-2020

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2017

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2001

1998-

2000

1998-

1999

1992-

1993

1991-

1992

1990-

1991

National grants (minor):

Ratajczak

1995

National grants:

(Finland).

(UK),

(Germany)

Warsaw)

Thoughtful Heart 4.0: A holistic approach to the health crisis

Integration and Outcome Prediction.

about 25.000 \$ (with physics).

investigators.

Copernicus University.

<u>Med-Uni project</u>, Stefan Batory Foundation, grant director

UMK, local grant, What can you teach neural networks?, principal investigator.

UMK, local grant, *Models of neural networks*", principal investigator.

UMK, local grant, *Parallel data processing*, principal investigator.

• Publications (topics) or publications (years) | old list of Cl Lab projects.

• Invited Talks, direct Web link + local list of talks and presentations.

• Conferences and Schools Attended or local list.

• WD info in Ludzie Nauki | in Wikipedia.

large multidisciplinary collaborative grant (about 1 mln \$)

Autism: comprehensive approach. MNiSW, principal investigator

Selection of information. KBN, principal investigator, no. T11C-07128

Neurofuzzy systems, KBN, 133.000 PLN, principal investigator

Meta-learning in Computational Intelligence. KBN, co-principal investigator

2012

2012

2010

Over 300 popular articles in many journals.

Hobbies and other major interests

• English - fluent (written and spoken)

Research fields, in order of present interest

methods of the configuration interaction type.

molecules, vibronic couplings, harmonic oscillators.

Two major awards for popularization of science (1983, 1984).

Computer systems:

Teaching experience

Computer experience

• Gold medal: <u>INNOVA EUREKA</u> 2015, Brussels, November 2015.

atomic and molecular physics, group theory, computer methods in physics.

• Russian - used to be fluent, now a bit rusty (written and spoken)

• German - used to be fluent, now a bit rusty (written and spoken)

development of computational science educational programs.

Involvement in international projects (see also <u>professional associations</u>):

• Gold medal: INPEX, Pittsburg, USA, June 2015, America's largest invention trade show.