

Włodzisław Duch

List of Publications by Year in descending order

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Version: 2024-02-01

172
papers

2,820
citations

236612

25
h-index

243296

44
g-index

187
all docs

187
docs citations

187
times ranked

2212
citing authors

#	ARTICLE	IF	CITATIONS
1	Privacy-Preserving Brain-Computer Interfaces: A Systematic Review. IEEE Transactions on Computational Social Systems, 2023, 10, 2312-2324.	3.2	17
2	Improving the generalizability of infant psychological research: The ManyBabies model. Behavioral and Brain Sciences, 2022, 45, e35.	0.4	17
3	Department of Informatics, Institute of Engineering and Technology Nicolaus Copernicus University. Roczniki Psychologiczne, 2022, , .	0.0	0
4	Learnability evaluation of the markup language for designing applications controlled by gaze. International Journal of Human Computer Studies, 2022, 165, 102863.	3.7	0
5	Number line estimation strategies used by children with dyscalculia and typically developing controls. , 2022, 64, .		0
6	Early deafness leads to re-shaping of functional connectivity beyond the auditory cortex. Brain Imaging and Behavior, 2021, 15, 1469-1482.	1.1	12
7	supFunSim: Spatial Filtering Toolbox for EEG. Neuroinformatics, 2021, 19, 107-125.	1.5	7
8	Novel Methodological Tools for Behavioral Interventions: The Case of HRV-Biofeedback. Sham Control and Quantitative Physiology-Based Assessment of Training Quality and Fidelity. Sensors, 2021, 21, 3670.	2.1	2
9	Memetics and neural models of conspiracy theories. Patterns, 2021, 2, 100353.	3.1	1
10	Zagadnienie interdyscyplinarności w perspektywie polityki naukowej w Polsce. Zagadnienia Naukoznawstwa, 2021, 55, 39-45.	0.0	0
11	Strategie szacowania miejsca liczb na osi u dzieci z dyskalkulią... i typowo rozwijających się siem. , 2021, 64, 39-66.		0
12	IDyOT architecture - is this how minds operate?. Physics of Life Reviews, 2020, 34-35, 54-56.	1.5	1
13	Spatiotemporal complexity patterns of resting-state bioelectrical activity explain fluid intelligence: Sex matters. Human Brain Mapping, 2020, 41, 4846-4865.	1.9	10
14	Dynamic reconfiguration of functional brain networks during working memory training. Nature Communications, 2020, 11, 2435.	5.8	130
15	Scientists' Contribution to Science and Methods of Its Visualization. Advances in Intelligent Systems and Computing, 2020, , 159-168.	0.5	1
16	Modelling effects of consciousness disorders in brainstem computational model - Preliminary findings. Bio-Algorithms and Med-Systems, 2020, 16, .	1.0	0
17	Brain stem - from general view to computational model based on switchboard rules of operation. Bio-Algorithms and Med-Systems, 2020, 16, .	1.0	2
18	Projekty MetaLab i ManyBabies. Metaanalizy w psychologii rozwojowej. Psychologia Rozwojowa, 2020, 25, 9-27.	0.2	0

#	ARTICLE	IF	CITATIONS
19	Mind as a shadow of neurodynamics. <i>Physics of Life Reviews</i> , 2019, 31, 28-31.	1.5	7
20	Perception of non-native phoneme contrasts in 8-13 months infants: tensor-based analysis of EEG signals. , 2019, , .		1
21	Autism Spectrum Disorder and Deep Attractors in Neurodynamics. <i>Springer Series in Cognitive and Neural Systems</i> , 2019, , 135-146.	0.1	3
22	Hylomorphism Extended: Dynamical Forms and Minds. <i>Philosophies</i> , 2018, 3, 36.	0.4	0
23	Moveye. , 2018, , .		0
24	Brain stem modeling at a system level – chances and limitations. <i>Bio-Algorithms and Med-Systems</i> , 2018, 14, .	1.0	2
25	Multi-level Explanations in Neuroscience I: From Genes to Subjective Experiences. <i>Acta Physica Polonica B</i> , 2018, 49, 1981.	0.3	0
26	Multi-level Explanations in Neuroscience II: EEG Spectral Fingerprints and Tensor Decompositions for Understanding Brain Activity – Initial Results. <i>Acta Physica Polonica B</i> , 2018, 49, 2011.	0.3	0
27	Transition of the functional brain network related to increasing cognitive demands. <i>Human Brain Mapping</i> , 2017, 38, 3659-3674.	1.9	81
28	Why minds cannot be received, but are created by brains. <i>Scientia Et Fides</i> , 2017, 5, 171.	0.3	4
29	Neural network modelling of the influence of channelopathies on reflex visual attention. <i>Cognitive Neurodynamics</i> , 2016, 10, 49-72.	2.3	7
30	Recent Advances in Learning Theory. <i>Computational Intelligence and Neuroscience</i> , 2015, 2015, 1-4.	1.1	3
31	Intelligent emotions stabilization system using standardized images, breath sensor and biofeedback - new concept. , 2014, , .		1
32	Multiple Inheritance Problem in Semantic Spreading Activation Networks. <i>Lecture Notes in Computer Science</i> , 2014, , 252-265.	1.0	4
33	Braingene: Computational creativity algorithm that invents novel interesting names. , 2013, , .		1
34	Autism and ADHD – Two Ends of the Same Spectrum?. <i>Lecture Notes in Computer Science</i> , 2013, , 623-630.	1.0	5
35	Meta-Learning. , 2013, , 1293-1296.		2
36	Computational Creativity. , 2013, , 464-468.		5

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37	Make it cheap: Learning with O(nd) complexity. , 2012, , .		14
38	Information retrieval with semantic memory model. Cognitive Systems Research, 2012, 14, 84-100.	1.9	19
39	Self Organizing Maps for Visualization of Categories. Lecture Notes in Computer Science, 2012, , 160-167.	1.0	12
40	Annotating Words Using WordNet Semantic Glosses. Lecture Notes in Computer Science, 2012, , 180-187.	1.0	6
41	Recursive Similarity-Based Algorithm for Deep Learning. Lecture Notes in Computer Science, 2012, , 390-397.	1.0	1
42	COMPUTATIONAL APPROACH TO UNDERSTANDING AUTISM SPECTRUM DISORDERS. Computer Science, 2012, 13, 47.	0.4	17
43	Extraction of Prototype-Based Threshold Rules Using Neural Training Procedure. Lecture Notes in Computer Science, 2012, , 255-262.	1.0	0
44	Locally Optimized Kernels. Lecture Notes in Computer Science, 2012, , 412-420.	1.0	0
45	Feature Ranking Methods Used for Selection of Prototypes. Lecture Notes in Computer Science, 2012, , 296-304.	1.0	0
46	LVQ algorithm with instance weighting for generation of prototype-based rules. Neural Networks, 2011, 24, 824-830.	3.3	15
47	Machine learning competition in immunology â€“ Prediction of HLA class I binding peptides. Journal of Immunological Methods, 2011, 374, 1-4.	0.6	53
48	Visualization for understanding of neurodynamical systems. Cognitive Neurodynamics, 2011, 5, 145-160.	2.3	27
49	Neurodynamics and the mind. , 2011, , .		1
50	Optimal Support Features for Meta-Learning. Studies in Computational Intelligence, 2011, , 317-358.	0.7	1
51	Attractors in Neurodynamical Systems. , 2011, , 157-161.		1
52	Fast Projection Pursuit Based on Quality of Projected Clusters. Lecture Notes in Computer Science, 2011, , 89-97.	1.0	0
53	Induction of the Common-Sense Hierarchies in Lexical Data. Lecture Notes in Computer Science, 2011, , 726-734.	1.0	0
54	Detection of Structural Features in Biological Signals. Journal of Signal Processing Systems, 2010, 60, 115-129.	1.4	8

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55	Understanding neurodynamical systems via Fuzzy Symbolic Dynamics. <i>Neural Networks</i> , 2010, 23, 487-496.	3.3	31
56	Support Feature Machines: Support vectors are not enough. , 2010, , .		4
57	Improving Accuracy of LVQ Algorithm by Instance Weighting. <i>Lecture Notes in Computer Science</i> , 2010, , 257-266.	1.0	3
58	Discovering Data Structures Using Meta-learning, Visualization and Constructive Neural Networks. <i>Studies in Computational Intelligence</i> , 2010, , 467-484.	0.7	7
59	Pruning Classification Rules with Reference Vector Selection Methods. <i>Lecture Notes in Computer Science</i> , 2010, , 347-354.	1.0	4
60	Infosel++: Information Based Feature Selection C++ Library. <i>Lecture Notes in Computer Science</i> , 2010, , 388-396.	1.0	6
61	Representation of Hypertext Documents Based on Terms, Links and Text Compressibility. <i>Lecture Notes in Computer Science</i> , 2010, , 282-289.	1.0	3
62	Triangular Visualization. <i>Lecture Notes in Computer Science</i> , 2010, , 445-452.	1.0	0
63	Support Feature Machine for DNA Microarray Data. <i>Lecture Notes in Computer Science</i> , 2010, , 178-186.	1.0	0
64	Almost Random Projection Machine with Margin Maximization and Kernel Features. <i>Lecture Notes in Computer Science</i> , 2010, , 40-48.	1.0	1
65	Some Computational Aspects of the Brain Computer Interfaces Based on Inner Music. <i>Computational Intelligence and Neuroscience</i> , 2009, 2009, 1-9.	1.1	14
66	Challenges for Computational Intelligence (Duch, W. and Mandziuk, J., Eds.; 2007) [Book reviews]. <i>IEEE Transactions on Neural Networks</i> , 2009, 20, 542-543.	4.8	11
67	Almost Random Projection Machine. <i>Lecture Notes in Computer Science</i> , 2009, , 789-798.	1.0	6
68	Constructive Neural Network Algorithms That Solve Highly Non-separable Problems. <i>Studies in Computational Intelligence</i> , 2009, , 49-70.	0.7	6
69	Universal Learning Machines. <i>Lecture Notes in Computer Science</i> , 2009, , 206-215.	1.0	7
70	Constrained Learning Vector Quantization or Relaxed k-Separability. <i>Lecture Notes in Computer Science</i> , 2009, , 151-160.	1.0	1
71	Neurocognitive Approach to Creativity in the Domain of Word-Invention. <i>Lecture Notes in Computer Science</i> , 2009, , 88-96.	1.0	1
72	Architektury kognitywne, czyli jak zbudowaÅ‡ sztuczny umysÅ‡, .. , 2009, , .		5

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73	Neurocognitive Approach to Clustering of PubMed Query Results. Lecture Notes in Computer Science, 2009, , 70-79.	1.0	1
74	Neurolinguistic approach to natural language processing with applications to medical text analysis. Neural Networks, 2008, 21, 1500-1510.	3.3	39
75	Preface. Neural Networks, 2008, 21, 797-798.	3.3	0
76	Variable step search algorithm for feedforward networks. Neurocomputing, 2008, 71, 2470-2480.	3.5	32
77	Knowledge representation and acquisition for large-scale semantic memory. , 2008, , .		0
78	Comparison of Shannon, Renyi and Tsallis Entropy Used in Decision Trees. Lecture Notes in Computer Science, 2008, , 643-651.	1.0	62
79	Prototype Rules from SVM. Studies in Computational Intelligence, 2008, , 163-182.	0.7	4
80	Support Vector Machines for Visualization and Dimensionality Reduction. Lecture Notes in Computer Science, 2008, , 346-356.	1.0	15
81	Fuzzy Symbolic Dynamics for Neurodynamical Systems. Lecture Notes in Computer Science, 2008, , 471-478.	1.0	1
82	Projection Pursuit Constructive Neural Networks Based on Quality of Projected Clusters. Lecture Notes in Computer Science, 2008, , 754-762.	1.0	12
83	A Comparison of Methods for Learning of Highly Non-separable Problems. Lecture Notes in Computer Science, 2008, , 566-577.	1.0	2
84	Building Localized Basis Function Networks Using Context Dependent Clustering. Lecture Notes in Computer Science, 2008, , 482-491.	1.0	0
85	Artificial Intelligence Approaches for Rational Drug Design and Discovery. Current Pharmaceutical Design, 2007, 13, 1497-1508.	0.9	152
86	Creativity and the Brain. , 2007, , 507-530.		5
87	General CIDM Co-chairs' Welcome Letter. , 2007, , .		0
88	Computational Models of Dementia and Neurological Problems. Methods in Molecular Biology, 2007, 401, 305-336.	0.4	21
89	Neurolinguistic Approach to Vector Representation of Medical Concepts. Neural Networks (IJCNN), International Joint Conference on, 2007, , .	0.0	3
90	Influence of a priori Knowledge on Medical Document Categorization. , 2007, , .		4

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91	Semantic Memory Knowledge Acquisition Through Active Dialogues. , 2007, , .		10
92	Intuition, Insight, Imagination and Creativity. IEEE Computational Intelligence Magazine, 2007, 2, 40-52.	3.4	35
93	A Kolmogorov-Smirnov Correlation-Based Filter for Microarray Data. Lecture Notes in Computer Science, 2007, , 285-294.	1.0	4
94	Towards Comprehensive Foundations of Computational Intelligence. Studies in Computational Intelligence, 2007, , 261-316.	0.7	25
95	Learning Highly Non-separable Boolean Functions Using Constructive Feedforward Neural Network. Lecture Notes in Computer Science, 2007, , 180-189.	1.0	15
96	Synchronicity, Mind, and Matter. NeuroQuantology, 2007, 1, .	0.1	3
97	A shared task involving multi-label classification of clinical free text. , 2007, , .		173
98	Towards Understanding of Natural Language: Neurocognitive Inspirations. Lecture Notes in Computer Science, 2007, , 953-962.	1.0	5
99	Selection of Prototype Rules: Context Searching Via Clustering. Lecture Notes in Computer Science, 2006, , 573-582.	1.0	9
100	K-Separability. Lecture Notes in Computer Science, 2006, , 188-197.	1.0	20
101	Robot Space Exploration Using Peano Paths Generated by Self-Organizing Maps. , 2006, , .		0
102	Nonambiguous Concept Mapping in Medical Domain. Lecture Notes in Computer Science, 2006, , 941-950.	1.0	6
103	Prototype-Based Threshold Rules. Lecture Notes in Computer Science, 2006, , 1028-1037.	1.0	5
104	Filter Methods. Studies in Fuzziness and Soft Computing, 2006, , 89-117.	0.6	70
105	Preparing Clinical Text for Use in Biomedical Research. Journal of Database Management, 2006, 17, 1-11.	1.0	17
106	Rules, similarity, and threshold logic. Behavioral and Brain Sciences, 2005, 28, 23-23.	0.4	4
107	Uncertainty of Data, Fuzzy Membership Functions, and Multilayer Perceptrons. IEEE Transactions on Neural Networks, 2005, 16, 10-23.	4.8	50
108	Concept Description Vectors and the 20 Question Game. , 2005, , 41-50.		7

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109	Semantic memory for avatars in cyberspace. , 2005, , .		1
110	Support Vector Neural Training. Lecture Notes in Computer Science, 2005, , 67-72.	1.0	6
111	Feature Selection for High-Dimensional Data: A Kolmogorov-Smirnov Correlation-Based Filter. Advances in Soft Computing, 2005, , 95-103.	0.4	35
112	Minimum Spanning Trees Displaying Semantic Similarity. , 2005, , 31-40.		0
113	Computational intelligence methods for rule-based data understanding. Proceedings of the IEEE, 2004, 92, 771-805.	16.4	166
114	Fuzzy Rule-Based Systems Derived from Similarity to Prototypes. Lecture Notes in Computer Science, 2004, , 912-917.	1.0	20
115	Visualization of Hidden Node Activity in Neural Networks: I. Visualization Methods. Lecture Notes in Computer Science, 2004, , 38-43.	1.0	7
116	Visualization of Hidden Node Activity in Neural Networks: II. Application to RBF Networks. Lecture Notes in Computer Science, 2004, , 44-49.	1.0	5
117	Development of a Pediatric Text-Corpus for Part-of-Speech Tagging. , 2004, , 219-226.		6
118	QUO VADIS, COMPUTATIONAL INTELLIGENCE?. Advances in Fuzzy Systems, 2004, , 3-28.	8.7	8
119	Just bubbles?. Behavioral and Brain Sciences, 2003, 26, 410-411.	0.4	0
120	Feature Selection Based on Information Theory Filters. , 2003, , 173-178.		9
121	Transformation Distances, Strings and Identification of DNA Promoters. , 2003, , 620-625.		1
122	Competent Undemocratic Committees. , 2003, , 412-417.		4
123	Visualization of Large Data Sets Using MDS Combined with LVQ. , 2003, , 632-637.		2
124	Heterogeneous Forests of Decision Trees. Lecture Notes in Computer Science, 2002, , 504-509.	1.0	17
125	Meta-learning via Search Combined with Parameter Optimization. , 2002, , 13-22.		8
126	A new methodology of extraction, optimization and application of crisp and fuzzy logical rules. IEEE Transactions on Neural Networks, 2001, 12, 277-306.	4.8	181

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127	Facing the hard question. Behavioral and Brain Sciences, 2001, 24, 187-188.	0.4	1
128	Ensembles of Similarity-Based Models. Advances in Intelligent and Soft Computing, 2001, , 75-85.	0.2	3
129	Optimization and Interpretation of Rule-Based Classifiers. , 2000, , 1-13.		3
130	SBL-PM: A Simple Algorithm for Selection of Reference Instances in Similarity Based Methods. , 2000, , 99-107.		7
131	Fuzzy and Crisp Logical Rule Extraction Methods in Application to Medical Data. Studies in Fuzziness and Soft Computing, 2000, , 593-616.	0.6	6
132	Neural Networks in Non-Euclidean Spaces. Neural Processing Letters, 1999, 10, 201-210.	2.0	5
133	SGA derivation of matrix elements between spin-adapted perturbative wave functions. International Journal of Quantum Chemistry, 1999, 74, 123-133.	1.0	0
134	Hybrid Neural-global Minimization Method of Logical Rule Extraction. Journal of Advanced Computational Intelligence and Intelligent Informatics, 1999, 3, 348-356.	0.5	8
135	Extraction of Logical Rules from Neural Networks. Neural Processing Letters, 1998, 7, 211-219.	2.0	39
136	Artificial Intelligence Support for Computational Chemistry. Advances in Quantum Chemistry, 1997, , 329-343.	0.4	0
137	Computational physics of the mind. Computer Physics Communications, 1996, 97, 136-153.	3.0	9
138	Feature space mapping as a universal adaptive system. Computer Physics Communications, 1995, 87, 341-371.	3.0	52
139	Neural networks as tools to solve problems in physics and chemistry. Computer Physics Communications, 1994, 82, 91-103.	3.0	38
140	On multireference superdirect configuration interaction in third order. International Journal of Quantum Chemistry, 1994, 50, 243-271.	1.0	8
141	Quantitative measures for self-organizing topographic maps. Open Systems and Information Dynamics, 1994, 2, 295-302.	0.5	6
142	Sizeâ€extensivity corrections in configuration interaction methods. Journal of Chemical Physics, 1994, 101, 3018-3030.	1.2	94
143	Perturbation theory in multireference spaces. Physical Review A, 1992, 46, 95-104.	1.0	11
144	Configuration interaction method: the past and future perspectives. Computational and Theoretical Chemistry, 1991, 234, 27-49.	1.5	10

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145	CI calculation on the Rydberg spectrum of H ₃ . Chemical Physics Letters, 1990, 168, 69-74.	1.2	10
146	Towards a configuration interaction method with flexible spaces. International Journal of Quantum Chemistry, 1990, 38, 683-692.	1.0	4
147	Method for locating errors in Hamiltonian matrices. Physical Review A, 1990, 41, 3503-3510.	1.0	10
148	Operator algebra for the many-body problem in the spin eigenfunction basis. Journal of Chemical Physics, 1989, 91, 2452-2456.	1.2	8
149	The superdirect configuration interaction method. Chemical Physics Letters, 1989, 162, 56-60.	1.2	9
150	Schrödinger's Thoughts on Perfect Knowledge. , 1989, , 5-14.		2
151	The dipole polarizability of Li ⁺ . Chemical Physics Letters, 1988, 147, 435-442.	1.2	41
152	A comment on several results of CI calculations for H ₂ O. Chemical Physics Letters, 1988, 144, 421-422.	1.2	8
153	Visualisation of many-particle model spaces with application to the shell-model calculations. Journal of Physics A, 1987, 20, 1633-1643.	1.6	2
154	A multireference direct CI program based on the symmetric group graphical approach. Theoretica Chimica Acta, 1987, 71, 187-199.	0.9	32
155	Microphysical Reality. Physics Today, 1986, 39, 13-15.	0.3	1
156	Calculation of the one-electron coupling coefficients in the configuration interaction method. Chemical Physics Letters, 1986, 124, 442-446.	1.2	14
157	From determinants to spin eigenfunctions? a simple algorithm. International Journal of Quantum Chemistry, 1986, 30, 799-807.	1.0	5
158	Matrix elements of a spin-adapted reduced Hamiltonian. Physical Review A, 1986, 33, 2254-2261.	1.0	48
159	On the number of spin functions in the first order interaction space. Theoretica Chimica Acta, 1985, 67, 263-269.	0.9	2
160	Efficient method for computation of representation matrices of the unitary group generators. International Journal of Quantum Chemistry, 1985, 27, 59-70.	1.0	18
161	Symmetric group approach to configuration interaction methods. Computer Physics Reports, 1985, 2, 93-170.	2.3	137
162	Graphical representation of Salter determinants. Journal of Physics A, 1985, 18, 3283-3307.	1.6	17

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163	Matrix elements of X_k and $\epsilon^{\pm} X_k$ in the harmonic oscillator basis. Journal of Physics A, 1983, 16, 4233-4236.	1.6	15
164	Theoretical calculation of the absorption and magnetic circular dichroism spectrum of a Jahn-Teller distorted excited state: The $1E_g$ excited state of cyclopropane. Journal of Chemical Physics, 1983, 79, 2951-2963.	1.2	16
165	Symmetric group graphical approach to the direct configuration interaction method. International Journal of Quantum Chemistry, 1982, 22, 783-824.	1.0	71
166	Large scale N-fermion calculations. Computer Physics Communications, 1980, 20, 49-52.	3.0	0
167	The direct configuration interaction method for general multireference expansions: Symmetric group approach. Theoretica Chimica Acta, 1980, 57, 299-313.	0.9	8
168	Coupling constants in the direct configuration interaction method. Theoretica Chimica Acta, 1979, 51, 175-188.	0.9	21
169	Extraction of crisp logical rules using constructive constrained backpropagation networks. , 0, , .		5
170	Neural optimization of linguistic variables and membership functions. , 0, , .		5
171	Feature selection based on information theory, consistency and separability indices. , 0, , .		7
172	Comparison of feature ranking methods based on information entropy. , 0, , .		30