

Piotr Formanowicz

List of Publications by Year in descending order

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77
papers

1,195
citations

430874

18
h-index

414414

32
g-index

78
all docs

78
docs citations

78
times ranked

1083
citing authors

#	ARTICLE	IF	CITATIONS
1	An improved approximation algorithm for the single machine total completion time scheduling problem with availability constraints. <i>European Journal of Operational Research</i> , 2005, 161, 3-10.	5.7	109
2	Two-machine flow shops with limited machine availability. <i>European Journal of Operational Research</i> , 2002, 136, 528-540.	5.7	105
3	An analysis of the Petri net based model of the human body iron homeostasis process. <i>Computational Biology and Chemistry</i> , 2007, 31, 1-10.	2.3	60
4	Heuristic algorithms for the two-machine flowshop with limited machine availability. <i>Omega</i> , 2001, 29, 599-608.	5.9	57
5	DNA Sequencing With Positive and Negative Errors. <i>Journal of Computational Biology</i> , 1999, 6, 113-123.	1.6	55
6	Advanced Oxidation Protein Products and Carbonylated Proteins as Biomarkers of Oxidative Stress in Selected Atherosclerosis-Mediated Diseases. <i>BioMed Research International</i> , 2017, 2017, 1-9.	1.9	53
7	Homologous Crossovers among Molecules of Brome Mosaic Bromovirus RNA1 or RNA2 Segments In Vivo. <i>Journal of Virology</i> , 2005, 79, 5732-5742.	3.4	45
8	Tabu search for DNA sequencing with false negatives and false positives. <i>European Journal of Operational Research</i> , 2000, 125, 257-265.	5.7	43
9	Usefulness of serum interleukin-18 in predicting cardiovascular mortality in patients with chronic kidney disease – systems and clinical approach. <i>Scientific Reports</i> , 2015, 5, 18332.	3.3	42
10	A heuristic managing errors for DNA sequencing. <i>Bioinformatics</i> , 2002, 18, 652-660.	4.1	36
11	Scheduling preemptable tasks on parallel processors with limited availability. <i>Parallel Computing</i> , 2000, 26, 1195-1211.	2.1	32
12	A survey of graph coloring - its types, methods and applications. <i>Foundations of Computing and Decision Sciences</i> , 2012, 37, 223-238.	1.2	32
13	Minimizing the makespan in the two-machine no-wait flow-shop with limited machine availability. <i>Computers and Industrial Engineering</i> , 1999, 37, 497-500.	6.3	31
14	The role of Fenton reaction in ROS-induced toxicity underlying atherosclerosis – modeled and analyzed using a Petri net-based approach. <i>BioSystems</i> , 2018, 165, 71-87.	2.0	27
15	Complexity results and approximation algorithms for the two machine no-wait flow-shop with limited machine availability. <i>Journal of the Operational Research Society</i> , 2001, 52, 116-121.	3.4	25
16	Hemojuvelin–hepcidin axis modeled and analyzed using Petri nets. <i>Journal of Biomedical Informatics</i> , 2013, 46, 1030-1043.	4.3	24
17	Petri net based model of the body iron homeostasis. <i>Journal of Biomedical Informatics</i> , 2007, 40, 476-485.	4.3	23
18	Selected combinatorial problems of computational biology. <i>European Journal of Operational Research</i> , 2005, 161, 585-597.	5.7	22

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19	Theoretical Studies on the Engagement of Interleukin 18 in the Immuno-Inflammatory Processes Underlying Atherosclerosis. <i>International Journal of Molecular Sciences</i> , 2018, 19, 3476.	4.1	20
20	Some aspects of the anemia of chronic disorders modeled and analyzed by petri net based approach. <i>Bioprocess and Biosystems Engineering</i> , 2011, 34, 581-595.	3.4	19
21	Hepatitis C virus quasispecies in chronically infected children subjected to interferon+ribavirin therapy. <i>Archives of Virology</i> , 2010, 155, 1977-1987.	2.1	18
22	Holmes: a graphical tool for development, simulation and analysis of Petri net based models of complex biological systems. <i>Bioinformatics</i> , 2017, 33, 3822-3823.	4.1	17
23	Sequencing by hybridization with isothermic oligonucleotide libraries. <i>Discrete Applied Mathematics</i> , 2004, 145, 40-51.	0.9	16
24	An Algorithm for an Automatic NOE Pathways Analysis of 2D NMR Spectra of RNA Duplexes. <i>Journal of Computational Biology</i> , 2004, 11, 163-179.	1.6	15
25	Tabu search algorithm for DNA sequencing by hybridization with isothermic libraries. <i>Computational Biology and Chemistry</i> , 2004, 28, 11-19.	2.3	14
26	A tiling microarray for global analysis of chloroplast genome expression in cucumber and other plants. <i>Plant Methods</i> , 2011, 7, 29.	4.3	14
27	On the recognition of de Bruijn graphs and their induced subgraphs. <i>Discrete Mathematics</i> , 2002, 245, 81-92.	0.7	13
28	Transferrin changes in haemodialysed patients. <i>International Urology and Nephrology</i> , 2012, 44, 907-919.	1.4	12
29	A Control-Theoretic Model of Atherosclerosis. <i>International Journal of Molecular Sciences</i> , 2019, 20, 785.	4.1	12
30	A Role of Inflammation and Immunity in Essential Hypertension+Modeled and Analyzed Using Petri Nets. <i>International Journal of Molecular Sciences</i> , 2020, 21, 3348.	4.1	12
31	Petri net-based approach to modeling and analysis of selected aspects of the molecular regulation of angiogenesis. <i>PLoS ONE</i> , 2017, 12, e0173020.	2.5	11
32	A Stochastic Petri Net-Based Model of the Involvement of Interleukin 18 in Atherosclerosis. <i>International Journal of Molecular Sciences</i> , 2020, 21, 8574.	4.1	10
33	New insights into the human body iron metabolism analyzed by a Petri net based approach. <i>BioSystems</i> , 2009, 96, 104-113.	2.0	9
34	Towards Prediction of HCV Therapy Efficiency. <i>Computational and Mathematical Methods in Medicine</i> , 2010, 11, 185-199.	1.3	9
35	The study of the influence of micro-environmental signals on macrophage differentiation using a quantitative Petri net based model. <i>Archives of Control Sciences</i> , 2017, 27, 331-349.	1.7	9
36	Systems Approach to Study Associations between OxLDL and Abdominal Aortic Aneurysms. <i>International Journal of Molecular Sciences</i> , 2019, 20, 3909.	4.1	9

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37	Modeling the process of human body iron homeostasis using a variant of timed Petri nets. <i>Discrete Applied Mathematics</i> , 2009, 157, 2221-2231.	0.9	7
38	Poseidon: An information retrieval and extraction system for metagenomic marine science. <i>Ecological Informatics</i> , 2012, 12, 10-15.	5.2	7
39	Petri nets and ODEs as complementary methods for comprehensive analysis on an example of the ATM-p53-NF- κ B signaling pathways. <i>Scientific Reports</i> , 2022, 12, 1135.	3.3	7
40	The effect of cigarette smoking on endothelial damage and atherosclerosis development – modeled and analyzed using Petri nets. <i>Archives of Control Sciences</i> , 2017, 27, 211-228.	1.7	6
41	Structural analysis of a Petri net model of oxidative stress in atherosclerosis. <i>IET Systems Biology</i> , 2018, 12, 108-117.	1.5	6
42	Selected Aspects of Tobacco-Induced Prothrombotic State, Inflammation and Oxidative Stress: Modeled and Analyzed Using Petri Nets. <i>Interdisciplinary Sciences, Computational Life Sciences</i> , 2019, 11, 373-386.	3.6	6
43	Selected Atherosclerosis-Related Diseases May Differentially Affect the Relationship between Plasma Advanced Glycation End Products, Receptor sRAGE, and Uric Acid. <i>Journal of Clinical Medicine</i> , 2020, 9, 1416.	2.4	6
44	Control of Cholesterol Metabolism Using a Systems Approach. <i>Biology</i> , 2022, 11, 430.	2.8	6
45	A greedy algorithm for the DNA sequencing by hybridization with positive and negative errors and information about repetitions. <i>Bulletin of the Polish Academy of Sciences: Technical Sciences</i> , 2011, 59, 111-115.	0.8	5
46	A Petri net based model of oxidative stress in atherosclerosis. <i>Foundations of Computing and Decision Sciences</i> , 2012, 37, 59-78.	1.2	5
47	Some remarks on evaluating the quality of the multiple sequence alignment based on the BALiBASE benchmark. <i>International Journal of Applied Mathematics and Computer Science</i> , 2009, 19, 675-678.	1.5	5
48	An overall view of the process of the regulation of human iron metabolism. <i>Biotechnologia</i> , 2011, 2, 193-207.	0.9	5
49	A polynomial time equivalence between DNA sequencing and the exact perfect matching problem. <i>Discrete Optimization</i> , 2007, 4, 154-162.	0.9	4
50	The application of microarray technology to the identification of Tc1-like element sequences in fish genomes. <i>Marine Biology Research</i> , 2011, 7, 466-477.	0.7	4
51	Tabu search algorithm for DNA sequencing by hybridization with multiplicity information available. <i>Computers and Operations Research</i> , 2014, 47, 1-10.	4.0	4
52	DNA Sequencing, Eulerian Graphs, and the Exact Perfect Matching Problem. <i>Lecture Notes in Computer Science</i> , 2002, , 13-24.	1.3	4
53	DNA sequencing by hybridization with additional information available. <i>Computational Methods in Science and Technology</i> , 2005, 11, 21-29.	0.3	4
54	Scheduling jobs in open shops with limited machine availability. <i>RAIRO - Operations Research</i> , 2002, 36, 149-156.	1.8	3

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55	Multistage isothermic sequencing by hybridization. Computational Biology and Chemistry, 2005, 29, 69-77.	2.3	3
56	On a generalized model of labeled graphs. Discrete Applied Mathematics, 2013, 161, 1818-1827.	0.9	3
57	An Algorithm for Sequencing by Hybridization Based on an Alternating DNA Chip. Interdisciplinary Sciences, Computational Life Sciences, 2018, 10, 605-615.	3.6	3
58	Factors Influencing Essential Hypertension and Cardiovascular Disease Modeled and Analyzed using Stochastic Petri Nets. Fundamenta Informaticae, 2018, 160, 143-165.	0.4	3
59	Advanced Oxidation Protein Products and Carbonylated Proteins Levels in Endovascular and Open Repair of an Abdominal Aortic Aneurysm: The Effect of Pre-, Intra-, and Postoperative Treatment. BioMed Research International, 2019, 2019, 1-9.	1.9	3
60	The Crosstalk between SARS-CoV-2 Infection and the RAA System in Essential Hypertension – Analyses Using Systems Approach. International Journal of Molecular Sciences, 2021, 22, 10518.	4.1	3
61	Tabu Search Method for Determining Sequences of Amino Acids in Long Polypeptides. Lecture Notes in Computer Science, 2005, , 22-32.	1.3	2
62	Genetic and Tabu search algorithms for peptide assembly problem. RAIRO - Operations Research, 2010, 44, 153-166.	1.8	2
63	Reference Alignment Based Methods for Quality Evaluation of Multiple Sequence Alignment - A Survey. Current Bioinformatics, 2014, 9, 44-56.	1.5	2
64	A multilevel ant colony optimization algorithm for classical and isothermic DNA sequencing by hybridization with multiplicity information available. Computational Biology and Chemistry, 2016, 61, 109-120.	2.3	2
65	Petri net – based model of the human DNA base excision repair pathway. PLoS ONE, 2019, 14, e0217913.	2.5	2
66	DNA computing. Computational Methods in Science and Technology, 2005, 11, 11-20.	0.3	2
67	EDITORIAL On the border between biology, mathematics and computer science. Biotechnologia, 2011, 3, 217-220.	0.9	2
68	Interrelations between Iron and Vitamin A – Studied Using Systems Approach. International Journal of Molecular Sciences, 2022, 23, 1189.	4.1	2
69	The Mutual Contribution of 3-NT, IL-18, Albumin, and Phosphate Foreshadows Death of Hemodialyzed Patients in a 2-Year Follow-Up. Antioxidants, 2022, 11, 355.	5.1	2
70	Adaptive memory programming: local search parallel algorithms for phylogenetic tree construction. Annals of Operations Research, 2011, 183, 75-94.	4.1	1
71	The Fan – Raspaud conjecture: A randomized algorithmic approach and application to the pair assignment problem in cubic networks. International Journal of Applied Mathematics and Computer Science, 2012, 22, 765-778.	1.5	1
72	Mathematical Modeling of Aortic Aneurysm Progression. , 2018, , 85-89.		1

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73	DNA Based Algorithms for Some Scheduling Problems. Lecture Notes in Computer Science, 2003, , 673-683.	1.3	1
74	A method for constructing artificial DNA libraries based on generalized de Bruijn sequences. Discrete Applied Mathematics, 2019, 259, 127-144.	0.9	0
75	Labeled Graphs in Life Sciences – Two Important Applications. Mechanisms and Machine Science, 2022, , 201-217.	0.5	0
76	Parallel Algorithms for Evolutionary History Reconstruction. Lecture Notes in Computer Science, 2004, , 1138-1145.	1.3	0
77	Dedicated Heuristic for Peptide Assembly Problem. Current Bioinformatics, 2018, 13, 120-126.	1.5	0