Piotr Formanowicz

List of Publications by Year in descending order

77 papers	1,195 citations	489802 18 h-index	466096 32 g-index
78 all docs	78 docs citations	78 times ranked	1193 citing authors

#	Article	IF	Citations
1	Labeled Graphs in Life Sciencesâ€"Two Important Applications. Mechanisms and Machine Science, 2022, , 201-217.	0.3	0
2	Petri nets and ODEs as complementary methods for comprehensive analysis on an example of the ATMâ€"p53â€"NF-$$kappa$$B signaling pathways. Scientific Reports, 2022, 12, 1135.	1.6	7
3	Interrelations between Iron and Vitamin Aâ€"Studied Using Systems Approach. International Journal of Molecular Sciences, 2022, 23, 1189.	1.8	2
4	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.	2.2	2
5	Control of Cholesterol Metabolism Using a Systems Approach. Biology, 2022, 11, 430.	1.3	6
6	The Crosstalk between SARS-CoV-2 Infection and the RAA System in Essential Hypertensionâ€"Analyses Using Systems Approach. International Journal of Molecular Sciences, 2021, 22, 10518.	1.8	3
7	A Stochastic Petri Net-Based Model of the Involvement of Interleukin 18 in Atherosclerosis. International Journal of Molecular Sciences, 2020, 21, 8574.	1.8	10
8	A Role of Inflammation and Immunity in Essential Hypertensionâ€"Modeled and Analyzed Using Petri Nets. International Journal of Molecular Sciences, 2020, 21, 3348.	1.8	12
9	Selected Atherosclerosis-Related Diseases May Differentially Affect the Relationship between Plasma Advanced Glycation End Products, Receptor sRAGE, and Uric Acid. Journal of Clinical Medicine, 2020, 9, 1416.	1.0	6
10	Systems Approach to Study Associations between OxLDL and Abdominal Aortic Aneurysms. International Journal of Molecular Sciences, 2019, 20, 3909.	1.8	9
11	Petri netâ€"based model of the human DNA base excision repair pathway. PLoS ONE, 2019, 14, e0217913.	1.1	2
12	A method for constructing artificial DNA libraries based on generalized de Bruijn sequences. Discrete Applied Mathematics, 2019, 259, 127-144.	0.5	0
13	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.	0.9	3
14	A Control-Theoretic Model of Atherosclerosis. International Journal of Molecular Sciences, 2019, 20, 785.	1.8	12
15	Selected Aspects of Tobacco-Induced Prothrombotic State, Inflammation and Oxidative Stress: Modeled and Analyzed Using Petri Nets. Interdisciplinary Sciences, Computational Life Sciences, 2019, 11, 373-386.	2.2	6
16	The role of Fenton reaction in ROS-induced toxicity underlying atherosclerosis â€" modeled and analyzed using a Petri net-based approach. BioSystems, 2018, 165, 71-87.	0.9	27
17	Mathematical Modeling of Aortic Aneurysm Progression. , 2018, , 85-89.		1
18	An Algorithm for Sequencing by Hybridization Based on an Alternating DNA Chip. Interdisciplinary Sciences, Computational Life Sciences, 2018, 10, 605-615.	2.2	3

#	Article	IF	Citations
19	Theoretical Studies on the Engagement of Interleukin 18 in the Immuno-Inflammatory Processes Underlying Atherosclerosis. International Journal of Molecular Sciences, 2018, 19, 3476.	1.8	20
20	Factors Influencing Essential Hypertension and Cardiovascular Disease Modeled and Analyzed using Stochastic Petri Nets. Fundamenta Informaticae, 2018, 160, 143-165.	0.3	3
21	Structural analysis of a Petri net model of oxidative stress in atherosclerosis. IET Systems Biology, 2018, 12, 108-117.	0.8	6
22	Dedicated Heuristic for Peptide Assembly Problem. Current Bioinformatics, 2018, 13, 120-126.	0.7	0
23	The effect of cigarette smoking on endothelial damage and atherosclerosis development â€“ modeled and analyzed using Petri nets. Archives of Control Sciences, 2017, 27, 211-228.	1.7	6
24	Holmes: a graphical tool for development, simulation and analysis of Petri net based models of complex biological systems. Bioinformatics, 2017, 33, 3822-3823.	1.8	17
25	The study of the influence of micro-environmental signals on macrophage differentiation using a quantitative Petri net based model. Archives of Control Sciences, 2017, 27, 331-349.	1.7	9
26	Advanced Oxidation Protein Products and Carbonylated Proteins as Biomarkers of Oxidative Stress in Selected Atherosclerosis-Mediated Diseases. BioMed Research International, 2017, 2017, 1-9.	0.9	53
27	Petri net-based approach to modeling and analysis of selected aspects of the molecular regulation of angiogenesis. PLoS ONE, 2017, 12, e0173020.	1.1	11
28	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.	1.1	2
29	Usefulness of serum interleukin-18 in predicting cardiovascular mortality in patients with chronic kidney disease â€“ systems and clinical approach. Scientific Reports, 2015, 5, 18332.	1.6	42
30	Reference Alignment Based Methods for Quality Evaluation of Multiple Sequence Alignment - A Survey. Current Bioinformatics, 2014, 9, 44-56.	0.7	2
31	Tabu search algorithm for DNA sequencing by hybridization with multiplicity information available. Computers and Operations Research, 2014, 47, 1-10.	2.4	4
32	Hemojuvelinâ€“hepcidin axis modeled and analyzed using Petri nets. Journal of Biomedical Informatics, 2013, 46, 1030-1043.	2.5	24
33	On a generalized model of labeled graphs. Discrete Applied Mathematics, 2013, 161, 1818-1827.	0.5	3
34	A survey of graph coloring - its types, methods and applications. Foundations of Computing and Decision Sciences, 2012, 37, 223-238.	0.5	32
35	The Fanâ€“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
36	A Petri net based model of oxidative stress in atherosclerosis. Foundations of Computing and Decision Sciences, 2012, 37, 59-78.	0.5	5

#	Article	IF	Citations
37	Poseidon: An information retrieval and extraction system for metagenomic marine science. Ecological Informatics, 2012, 12, 10-15.	2.3	7
38	Transferrin changes in haemodialysed patients. International Urology and Nephrology, 2012, 44, 907-919.	0.6	12
39	A greedy algorithm for the DNA sequencing by hybridization with positive and negative errors and information about repetitions. Bulletin of the Polish Academy of Sciences: Technical Sciences, 2011, 59, 111-115.	0.8	5
40	A tiling microarray for global analysis of chloroplast genome expression in cucumber and other plants. Plant Methods, 2011, 7, 29.	1.9	14
41	Some aspects of the anemia of chronic disorders modeled and analyzed by petri net based approach. Bioprocess and Biosystems Engineering, 2011, 34, 581-595.	1.7	19
42	Adaptive memory programming: local search parallel algorithms for phylogenetic tree construction. Annals of Operations Research, 2011, 183, 75-94.	2.6	1
43	The application of microarray technology to the identification of Tc1-like element sequences in fish genomes. Marine Biology Research, 2011, 7, 466-477.	0.3	4
44	An overall view of the process of the regulation of human iron metabolism. Biotechnologia, 2011, 2, 193-207.	0.3	5
45	EDITORIAL On the border between biology, mathematics and computer science. Biotechnologia, 2011, 3, 217-220.	0.3	2
46	Hepatitis C virus quasispecies in chronically infected children subjected to interferonâ€“ribavirin therapy. Archives of Virology, 2010, 155, 1977-1987.	0.9	18
47	Towards Prediction of HCV Therapy Efficiency. Computational and Mathematical Methods in Medicine, 2010, 11, 185-199.	0.7	9
48	Genetic and Tabu search algorithms for peptide assembly problem. RAIRO - Operations Research, 2010, 44, 153-166.	1.0	2
49	New insights into the human body iron metabolism analyzed by a Petri net based approach. BioSystems, 2009, 96, 104-113.	0.9	9
50	Modeling the process of human body iron homeostasis using a variant of timed Petri nets. Discrete Applied Mathematics, 2009, 157, 2221-2231.	0.5	7
51	Some remarks on evaluating the quality of the multiple sequence alignment based on the BAliBASE benchmark. International Journal of Applied Mathematics and Computer Science, 2009, 19, 675-678.	1.5	5
52	An analysis of the Petri net based model of the human body iron homeostasis process. Computational Biology and Chemistry, 2007, 31, 1-10.	1.1	60
53	A polynomial time equivalence between DNA sequencing and the exact perfect matching problem. Discrete Optimization, 2007, 4, 154-162.	0.6	4
54	Petri net based model of the body iron homeostasis. Journal of Biomedical Informatics, 2007, 40, 476-485.	2.5	23

#	Article	IF	Citations
55	Multistage isothermic sequencing by hybridization. Computational Biology and Chemistry, 2005, 29, 69-77.	1.1	3
56	An improved approximation algorithm for the single machine total completion time scheduling problem with availability constraints. European Journal of Operational Research, 2005, 161, 3-10.	3.5	109
57	Selected combinatorial problems of computational biology. European Journal of Operational Research, 2005, 161, 585-597.	3.5	22
58	Homologous Crossovers among Molecules of Brome Mosaic Bromovirus RNA1 or RNA2 Segments In Vivo. Journal of Virology, 2005, 79, 5732-5742.	1.5	45
59	Tabu Search Method for Determining Sequences of Amino Acids in Long Polypeptides. Lecture Notes in Computer Science, 2005, , 22-32.	1.0	2
60	DNA computing. Computational Methods in Science and Technology, 2005, 11, 11-20.	0.3	2
61	DNA sequencing by hybridization with additional information available. Computational Methods in Science and Technology, 2005, 11, 21-29.	0.3	4
62	Sequencing by hybridization with isothermic oligonucleotide libraries. Discrete Applied Mathematics, 2004, 145, 40-51.	0.5	16
63	Tabu search algorithm for DNA sequencing by hybridization with isothermic libraries. Computational Biology and Chemistry, 2004, 28, 11-19.	1.1	14
64	An Algorithm for an Automatic NOE Pathways Analysis of 2D NMR Spectra of RNA Duplexes. Journal of Computational Biology, 2004, 11, 163-179.	0.8	15
65	Parallel Algorithms for Evolutionary History Reconstruction. Lecture Notes in Computer Science, 2004, , 1138-1145.	1.0	0
66	DNA Based Algorithms for Some Scheduling Problems. Lecture Notes in Computer Science, 2003, , 673-683.	1.0	1
67	A heuristic managing errors for DNA sequencing. Bioinformatics, 2002, 18, 652-660.	1.8	36
68	Scheduling jobs in open shops with limited machine availability. RAIRO - Operations Research, 2002, 36, 149-156.	1.0	3
69	Two-machine flow shops with limited machine availability. European Journal of Operational Research, 2002, 136, 528-540.	3.5	105
70	On the recognition of de Bruijn graphs and their induced subgraphs. Discrete Mathematics, 2002, 245, 81-92.	0.4	13
71	DNA Sequencing, Eulerian Graphs, and the Exact Perfect Matching Problem. Lecture Notes in Computer Science, 2002, , 13-24.	1.0	4
72	Heuristic algorithms for the two-machine flowshop with limited machine availability. Omega, 2001, 29, 599-608.	3.6	57

#	Article	IF	Citations
73	Complexity results and approximation algorithms for the two machine no-wait flow-shop with limited machine availability. Journal of the Operational Research Society, 2001, 52, 116-121.	2.1	25
74	Scheduling preemptable tasks on parallel processors with limited availability. Parallel Computing, 2000, 26, 1195-1211.	1.3	32
75	Tabu search for DNA sequencing with false negatives and false positives. European Journal of Operational Research, 2000, 125, 257-265.	3.5	43
76	DNA Sequencing With Positive and Negative Errors. Journal of Computational Biology, 1999, 6, 113-123.	0.8	55
77	Minimizing the makespan in the two-machine no-wait flow-shop with limited machine availability. Computers and Industrial Engineering, 1999, 37, 497-500.	3.4	31