Boyan Yordanov

List of Publications by Year
in descending order

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40 papers	913 citations	623734 14 h-index	501196 28 g-index
45 all docs	45 docs citations	45 times ranked	1042 citing authors

#	Article	IF	Citations
1	Discovering Essential Multiple Gene Effects Through Large Scale Optimization: An Application to Human Cancer Metabolism. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2021, 18, 2339-2352.	3.0	9
2	Formal Analysis of Network Motifs Links Structure to Function in Biological Programs. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2021, 18, 261-271.	3.0	7
3	A deep learning model for predicting next-generation sequencing depth from DNA sequence. Nature Communications, 2021, 12, 4387.	12.8	26
4	Automated Reasoning for the Synthesis and Analysis of Biological Programs. Computational Biology, 2019, , 37-62.	0.2	3
5	Fast Enumeration of Non-isomorphic Chemical Reaction Networks. Lecture Notes in Computer Science, 2019, , 224-247.	1.3	0
6	Predicting DNA hybridization kinetics from sequence. Nature Chemistry, 2018, 10, 91-98.	13.6	146
7	Synthesizing and tuning stochastic chemical reaction networks with specified behaviours. Journal of the Royal Society Interface, 2018, 15, 20180283.	3.4	9
8	Experimental Biological Protocols with Formal Semantics. Lecture Notes in Computer Science, 2018, , 165-182.	1.3	2
9	Largest Finite Satisfying Region. Studies in Systems, Decision and Control, 2017, , 47-79.	1.0	0
10	Language Guided Controller Synthesis. Studies in Systems, Decision and Control, 2017, , 205-230.	1.0	0
11	Finite Temporal Logic Control. Studies in Systems, Decision and Control, 2017, , 81-108.	1.0	1
12	Temporal Logic Control. Studies in Systems, Decision and Control, 2017, , 163-183.	1.0	0
13	Largest Satisfying Region. Studies in Systems, Decision and Control, 2017, , 119-139.	1.0	1
14	Optimal Temporal Logic Control. Studies in Systems, Decision and Control, 2017, , 231-256.	1.0	0
15	Discrete-Time Dynamical Systems. Studies in Systems, Decision and Control, 2017, , 111-118.	1.0	3
16	Orthogonal intercellular signaling for programmed spatial behavior. Molecular Systems Biology, 2016, 12, 849.	7.2	67
17	Automated Synthesis and Analysis of Switching Gene Regulatory Networks. BioSystems, 2016, 146, 26-34.	2.0	16
18	A method to identify and analyze biological programs through automated reasoning. Npj Systems Biology and Applications, 2016, 2, .	3.0	42

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19	Synthesizing and Tuning Chemical Reaction Networks with Specified Behaviours. Lecture Notes in Computer Science, 2015, , 16-33.	1.3	5
20	Switching Gene Regulatory Networks. Lecture Notes in Computer Science, 2015, , 131-144.	1.3	3
21	Programming Languages for Circuit Design. Methods in Molecular Biology, 2015, 1244, 81-104.	0.9	2
22	A Computational Method for Automated Characterization of Genetic Components. ACS Synthetic Biology, 2014, 3, 578-588.	3.8	23
23	Computational Design of Nucleic Acid Feedback Control Circuits. ACS Synthetic Biology, 2014, 3, 600-616.	3.8	92
24	Symbolic Approximation of the Bounded Reachability Probability in Large Markov Chains. Lecture Notes in Computer Science, 2014, , 388-403.	1.3	8
25	Formal analysis of piecewise affine systems through formula-guided refinement. Automatica, 2013, 49, 261-266.	5.0	21
26	Functional Analysis of Large-Scale DNA Strand Displacement Circuits. Lecture Notes in Computer Science, 2013, , 189-203.	1.3	10
27	SMT-Based Analysis of Biological Computation. Lecture Notes in Computer Science, 2013, , 78-92.	1.3	22
28	Temporal Logic Control of Discrete-Time Piecewise Affine Systems. IEEE Transactions on Automatic Control, 2012, 57, 1491-1504.	5.7	94
29	Experimentally driven verification of synthetic biological circuits. , 2012, , .		4
30	A formal verification approach to the design of synthetic gene networks. , 2011, , .		6
31	Formal analysis of piecewise affine systems through formula-guided refinement. , 2010, , .		10
32	A symbolic approach to controlling piecewise affine systems. , 2010, , .		19
33	Formal Analysis of Discrete-Time Piecewise Affine Systems. IEEE Transactions on Automatic Control, 2010, 55, 2834-2840.	5.7	34
34	Temporal logic control of discrete-time piecewise affine systems. , 2009, , .		7
35	Formal analysis of Piecewise Affine systems under parameter uncertainty with application to gene networks. , 2008, , .		6
36	Parameter Synthesis for Piecewise Affine Systems from Temporal Logic Specifications. Lecture Notes in Computer Science, 2008, , 542-555.	1.3	10

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37	Robustness analysis and tuning of synthetic gene networks. Bioinformatics, 2007, 23, 2415-2422.	4.1	125
38	Model checking discrete-time Piecewise Affine systems: Application to gene networks. , 2007, , .		10
39	The Sequence-Dependent Unfolding Pathway Plays a Critical Role in the Amyloidogenicity of Transthyretinâ€. Biochemistry, 2006, 45, 11992-12002.	2.5	28
40	Peptide Plane Can Flip in Two Opposite Directions:Â Implication in Amyloid Formation of Transthyretin. Journal of Physical Chemistry B, 2006, 110, 5829-5833.	2.6	18