Chris John Myers

List of Publications by Year
in descending order

155	3,306	201674	243625
papers	citations	27 h-index	44 g-index

168	168	168	2339
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The Synthetic Biology Open Language (SBOL) provides a community standard for communicating designs in synthetic biology. Nature Biotechnology, 2014, 32, 545-550.	17.5	247
2	<scp>SBML</scp> Level 3: an extensible format for the exchange and reuse of biological models. Molecular Systems Biology, 2020, 16, e9110.	7.2	178
3	SynBioHub: A Standards-Enabled Design Repository for Synthetic Biology. ACS Synthetic Biology, 2018, 7, 682-688.	3.8	112
4	iBioSim: a tool for the analysis and design of genetic circuits. Bioinformatics, 2009, 25, 2848-2849.	4.1	100
5	Synthesis of timed asynchronous circuits. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 1993, 1, 106-119.	3.1	92
6	Sharing Structure and Function in Biological Design with SBOL 2.0. ACS Synthetic Biology, 2016, 5, 498-506.	3.8	88
7	Generating Systems Biology Markup Language Models from the Synthetic Biology Open Language. ACS Synthetic Biology, 2015, 4, 873-879.	3.8	81
8	The Systems Biology Markup Language (SBML): Language Specification for Level 3 Version 2 Core Release 2. Journal of Integrative Bioinformatics, 2019, 16, .	1.5	78
9	SBOL Visual: A Graphical Language for Genetic Designs. PLoS Biology, 2015, 13, e1002310.	5.6	73
10	Promoting Coordinated Development of Community-Based Information Standards for Modeling in Biology: The COMBINE Initiative. Frontiers in Bioengineering and Biotechnology, 2015, 3, 19.	4.1	72
11	CMOS Analog MAP Decoder for (8,4) Hamming Code. IEEE Journal of Solid-State Circuits, 2004, 39, 122-131.	5.4	64
12	<scp>i</scp>B<scp>io</scp>S<scp>im</scp> 3: A Tool for Model-Based Genetic Circuit Design. ACS Synthetic Biology, 2019, 8, 1560-1563.	3.8	62
13	The Systems Biology Markup Language (SBML): Language Specification for Level 3 Version 2 Core. Journal of Integrative Bioinformatics, 2018, 15, .	1.5	57
14	An asynchronous instruction length decoder. IEEE Journal of Solid-State Circuits, 2001, 36, 217-228.	5.4	55
15	Harmonizing semantic annotations for computational models in biology. Briefings in Bioinformatics, 2019, 20, 540-550.	6.5	52
16	Genetic circuit design automation with Cello 2.0. Nature Protocols, 2022, 17, 1097-1113.	12.0	52
17	Toward Community Standards and Software for Whole-Cell Modeling. IEEE Transactions on Biomedical Engineering, 2016, 63, 2007-2014.	4.2	51
18	The long journey towards standards for engineering biosystems. EMBO Reports, 2020, 21, e50521.	4.5	46

#	Article	IF	Citations
19	Automatic abstraction for verification of cyber-physical systems. , 2010, , .		45
20	Systems Biology Markup Language (SBML) Level 2 Version 5: Structures and Facilities for Model Definitions. Journal of Integrative Bioinformatics, 2015, 12, 271.	1.5	42
21	The Synthetic Biology Open Language (SBOL) Version 3: Simplified Data Exchange for Bioengineering. Frontiers in Bioengineering and Biotechnology, 2020, 8, 1009.	4.1	40
22	SBML Level 3 package: Hierarchical Model Composition, Version 1 Release 3. Journal of Integrative Bioinformatics, 2015, 12, 603-659.	1.5	39
23	SBOLDesigner 2: An Intuitive Tool for Structural Genetic Design. ACS Synthetic Biology, 2017, 6, 1150-1160.	3.8	38
24	A standard-enabled workflow for synthetic biology. Biochemical Society Transactions, 2017, 45, 793-803.	3.4	38
25	JSBML 1.0: providing a smorgasbord of options to encode systems biology models. Bioinformatics, 2015, 31, 3383-3386.	4.1	37
26	Interfacing synchronous and asynchronous modules within a high-speed pipeline. IEEE Transactions on Very Large Scale Integration (VLSI) Systems, 2000, 8, 573-583.	3.1	33
27	</title> </titles> <publication_date> <month>06</month> <year>2012</year> </publication_date> <pages> <first_page>C1</first_page> <last_page>C1</last_page> </pages> <publisher_item> <item_number item_number_type='arNumber'>6327710</item_number> </publisher_item> <doi_data> <doi>10.1109/MDT.2012.2211731</doi> <resource>http://ieeexplore.ieee.org/lpdocs/epic03/wrapper.htm?arnumbe. IEEE Design and Test of	1.0	31
28	SBML Level 3 package: Hierarchical Model Composition, Version 1 Release 3. Journal of Integrative Bioinformatics, 2015, 12, 268.	1.5	31
29	A Methodology to Annotate Systems Biology Markup Language Models with the Synthetic Biology Open Language. ACS Synthetic Biology, 2014, 3, 57-66.	3.8	30
30	Directed Acyclic Graph-Based Technology Mapping of Genetic Circuit Models. ACS Synthetic Biology, 2014, 3, 543-555.	3.8	30
31	Communicating Structure and Function in Synthetic Biology Diagrams. ACS Synthetic Biology, 2019, 8, 1818-1825.	3.8	30
32	Verification of timed systems using POSETs. Lecture Notes in Computer Science, 1998, , 403-415.	1.3	29
33	A Computational Workflow for the Automated Generation of Models of Genetic Designs. ACS Synthetic Biology, 2019, 8, 1548-1559.	3.8	27
34	libSBOLj 2.0: A Java Library to Support SBOL 2.0. IEEE Life Sciences Letters, 2015, 1, 34-37.	1.2	24
35	Verification of Analog/Mixed-Signal Circuits Using Symbolic Methods. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2008, 27, 2223-2235.	2.7	23
36	ANALOG/MIXED-SIGNAL CIRCUIT VERIFICATION USING MODELS GENERATED FROM SIMULATION TRACES. International Journal of Foundations of Computer Science, 2010, 21, 191-210.	1.1	22

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37	Synthetic Biology Open Language (SBOL) Version 2.0.0. Journal of Integrative Bioinformatics, 2015, 12, 902-991.	1.5	22
38	Covering conditions and algorithms for the synthesis of speed-independent circuits. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 1998, 17, 205-219.	2.7	21
39	Timed state space exploration using POSETs. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2000, 19, 501-520.	2.7	21
40	Temperature Control of Fimbriation Circuit Switch in Uropathogenic Escherichia coli: Quantitative Analysis via Automated Model Abstraction. PLoS Computational Biology, 2010, 6, e1000723.	3.2	21
41	Meeting report from the fourth meeting of the Computational Modeling in Biology Network (COMBINE). Standards in Genomic Sciences, 2014, 9, 1285-1301.	1.5	21
42	Synthetic Biology Open Language Visual (SBOL Visual) Version 2.0. Journal of Integrative Bioinformatics, 2018, 15, .	1.5	21
43	Genetic Circuit Dynamics: Hazard and Glitch Analysis. ACS Synthetic Biology, 2020, 9, 2324-2338.	3.8	21
44	Synthetic Biology Open Language (SBOL) Version 2.0.0. Journal of Integrative Bioinformatics, 2015, 12, 272.	1.5	21
45	Timed circuits. , 2001, , .		20
46	A Converter from the Systems Biology Markup Language to the Synthetic Biology Open Language. ACS Synthetic Biology, 2016, 5, 479-486.	3.8	20
47	Synthetic Biology Open Language (SBOL) Version 2.2.0. Journal of Integrative Bioinformatics, 2018, 15, .	1.5	20
48	Modular verification of timed circuits using automatic abstraction. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2003, 22, 1138-1153.	2.7	19
49	Learning Genetic Regulatory Network Connectivity from Time Series Data. IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2011, 8, 152-165.	3.0	19
50	Proposed Data Model for the Next Version of the Synthetic Biology Open Language. ACS Synthetic Biology, 2015, 4, 57-71.	3.8	19
51	Analog/Mixed-Signal Circuit Verification Using Models Generated from Simulation Traces. , 2007, , 114-128.		18
52	The first 10 years of the international coordination network for standards in systems and synthetic biology (COMBINE). Journal of Integrative Bioinformatics, 2020, 17, .	1.5	18
53	Verification of analog/mixed-signal circuits using labeled hybrid petri nets. IEEE/ACM International Conference on Computer-Aided Design, Digest of Technical Papers, 2006, , .	0.0	17
54	Verification of Analog/Mixed-Signal Circuits Using Labeled Hybrid Petri Nets. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2011, 30, 617-630.	2.7	17

#	Article	IF	Citations
55	Design of Asynchronous Genetic Circuits. Proceedings of the IEEE, 2019, 107, 1356-1368.	21.3	16
56	Synthetic Biology Open Language (SBOL) Version 2.3. Journal of Integrative Bioinformatics, 2019, 16, .	1.5	16
57	Engineering Genetic Circuits. , 0, , .		16
58	The Case for Analog Circuit Verification. Electronic Notes in Theoretical Computer Science, 2006, 153, 53-63.	0.9	15
59	Dynamic Modeling of Cellular Populations within iBioSim. ACS Synthetic Biology, 2013, 2, 223-229.	3.8	15
60	Verification of Analog/Mixed-Signal Circuits Using Labeled Hybrid Petri Nets. IEEE/ACM International Conference on Computer-Aided Design, Digest of Technical Papers, 2006, , .	0.0	14
61	The Design of a Genetic Muller C-Element. Proceedings of the International Symposium on Advanced Research in Asynchronous Circuits and Systems, 2007, , .	0.0	14
62	pySBOL: A Python Package for Genetic Design Automation and Standardization. ACS Synthetic Biology, 2019, 8, 1515-1518.	3.8	14
63	Specifications of Standards in Systems and Synthetic Biology. Journal of Integrative Bioinformatics, 2015, 12, 258.	1.5	14
64	POSET timing and its application to the synthesis and verification of gate-level timed circuits. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 1999, 18, 769-786.	2.7	13
65	The Systems Biology Markup Language (SBML): Language Specification for Level 3 Version 1 Core. Journal of Integrative Bioinformatics, 2018, 15, .	1.5	13
66	Synthetic biology open language (SBOL) version 3.0.0. Journal of Integrative Bioinformatics, 2020, 17, .	1.5	13
67	Timed circuit verification using TEL structures. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2001, 20, 129-146.	2.7	12
68	Efficient algorithms for exact two-level hazard-free logic minimization. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2002, 21, 1269-1283.	2.7	12
69	Design and analysis of a robust genetic Muller C-element. Journal of Theoretical Biology, 2010, 264, 174-187.	1.7	12
70	Specifications of Standards in Systems and Synthetic Biology: Status and Developments in 2016. Journal of Integrative Bioinformatics, 2016, 13, 1-7.	1.5	12
71	SBOL-OWL: An Ontological Approach for Formal and Semantic Representation of Synthetic Biology Information. ACS Synthetic Biology, 2019, 8, 1498-1514.	3.8	12
72	Verification of Analog and Mixed-Signal Circuits Using Timed Hybrid Petri Nets. Lecture Notes in Computer Science, 2004, , 426-440.	1.3	12

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73	Utilizing stochastic model checking to analyze genetic circuits. , 2012, , .		11
74	Specifications of Standards in Systems and Synthetic Biology. Journal of Integrative Bioinformatics, 2015, 12, 1-3.	1.5	11
75	Synthetic Biology Open Language (SBOL) Version 2.1.0. Journal of Integrative Bioinformatics, 2016, 13, .	1.5	11
76	BioSimulators: a central registry of simulation engines and services for recommending specific tools. Nucleic Acids Research, 2022, 50, W108-W114.	14.5	11
77	Verification of timed circuits with failure-directed abstractions. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2006, 25, 403-412.	2.7	10
78	Stochastic Model Checking of Genetic Circuits. ACM Journal on Emerging Technologies in Computing Systems, 2014, 11, 1-21.	2.3	10
79	Specifications of standards in systems and synthetic biology: status and developments in 2020. Journal of Integrative Bioinformatics, 2020, 17, .	1.5	10
80	Verification of digitally-intensive analog circuits via kernel ridge regression and hybrid reachability analysis. , 2013, , .		9
81	An improved fault-tolerant routing algorithm for a Network-on-Chip derived with formal analysis. Science of Computer Programming, 2016, 118, 24-39.	1.9	9
82	Extending SynBioHubâ€™s Functionality with Plugins. ACS Synthetic Biology, 2020, 9, 1216-1220.	3.8	9
83	SBOLCanvas: A Visual Editor for Genetic Designs. ACS Synthetic Biology, 2021, 10, 1792-1796.	3.8	9
84	Quantitative characterization of recombinase-based digitizer circuits enables predictable amplification of biological signals. Communications Biology, 2021, 4, 875.	4.4	9
85	Synthetic Biology Knowledge System. ACS Synthetic Biology, 2021, 10, 2276-2285.	3.8	9
86	STAMINA: STochastic Approximate Model-Checker for INfinite-State Analysis. Lecture Notes in Computer Science, 2019, , 540-549.	1.3	9
87	Scheduling Methods for Asynchronous Circuits with Bundled-Data Implementations Based on the Approximation of Start Times. IEICE Transactions on Fundamentals of Electronics, Communications and Computer Sciences, 2007, E90-A, 2790-2799.	0.3	9
88	Synthetic Biology Open Language Visual (SBOL Visual) Version 2.1. Journal of Integrative Bioinformatics, 2019, 16, .	1.5	8
89	Round Trip: An Automated Pipeline for Experimental Design, Execution, and Analysis. ACS Synthetic Biology, 2022, 11, 608-622.	3.8	8
90	Computational Synthetic Biology: Progress and the Road Ahead. IEEE Transactions on Multi-Scale Computing Systems, 2015, 1, 19-32.	2.4	7

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91	Specifications of Standards in Systems and Synthetic Biology: Status and Developments in 2017. Journal of Integrative Bioinformatics, 2018, 15, .	1.5	7
92	Specifications of Standards in Systems and Synthetic Biology: Status and Developments in 2019. Journal of Integrative Bioinformatics, 2019, 16, .	1.5	7
93	Partial Order Reduction for Detecting Safety and Timing Failures of Timed Circuits. IEICE Transactions on Information and Systems, 2005, E88-D, 1646-1661.	0.7	7
94	Systems Biology Markup Language (SBML) Level 3 Package: Distributions, Version 1, Release 1. Journal of Integrative Bioinformatics, 2020, 17, .	1.5	7
95	Specifications of Standards in Systems and Synthetic Biology: Status and Developments in 2016. Journal of Integrative Bioinformatics, 2016, 13, 289.	1.5	7
96	Engineering genetic circuits: advancements in genetic design automation tools and standards for synthetic biology. Current Opinion in Microbiology, 2022, 68, 102155.	5.1	7
97	Symbolic Model Checking of Analog/Mixed-Signal Circuits. , 2007, , .		6
98	Platforms for Genetic Design Automation. Methods in Microbiology, 2013, , 177-202.	0.8	6
99	A brief history of COMBINE. , 2017, , .		6
100	Synthetic biology open language visual (SBOL Visual) version 2.3. Journal of Integrative Bioinformatics, 2021, 18, .	1.5	6
101	Synthetic Biology Open Language (SBOL) Version 2.1.0. Journal of Integrative Bioinformatics, 2016, 13, 291.	1.5	6
102	Synthesis of Timed Circuits Based on Decomposition. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2007, 26, 1177-1195.	2.7	5
103	Production-Passage-Time Approximation: A New Approximation Method to Accelerate the Simulation Process of Enzymatic Reactions. Journal of Computational Biology, 2008, 15, 779-792.	1.6	5
104	A new verification method for embedded systems. , 2009, , .		5
105	iSSA: An incremental stochastic simulation algorithm for genetic circuits. , 2010, , .		5
106	Hierarchical Stochastic Simulation Algorithm for SBML Models of Genetic Circuits. Frontiers in Bioengineering and Biotechnology, 2014, 2, 55.	4.1	5
107	Efficient Analysis of Systems Biology Markup Language Models of Cellular Populations Using Arrays. ACS Synthetic Biology, 2016, 5, 835-841.	3.8	5
108	SBOLme: a Repository of SBOL Parts for Metabolic Engineering. ACS Synthetic Biology, 2017, 6, 732-736.	3.8	5

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109	A Validator and Converter for the Synthetic Biology Open Language. ACS Synthetic Biology, 2017, 6, 1161-1168.	3.8	5
110	Automatic Abstraction for Verification of Timed Circuits and Systems?. Lecture Notes in Computer Science, 2001, , 182-193.	1.3	5
111	Approximation Techniques for Stochastic Analysis of Biological Systems. Computational Biology, 2019, , 327-348.	0.2	5
112	Bounded Model Checking of Analog and Mixed-Signal Circuits Using an SMT Solver. , 2007, , 66-81.		5
113	ILP-based Scheduling for Asynchronous Circuits in Bundled-Data Implementation. , 2006, , .		4
114	Sequence-Based Searching for SynBioHub Using VSEARCH. ACS Synthetic Biology, 2022, 11, 990-995.	3.8	4
115	Efficient Verification of Hazard-Freedom in Gate-Level Timed Asynchronous Circuits. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2007, 26, 592-605.	2.7	3
116	A Behavioral Synthesis System for Asynchronous Circuits with Bundled-data Implementation. IPSJ Transactions on System LSI Design Methodology, 2009, 2, 64-79.	0.8	3
117	Compositional Model Checking of Concurrent Systems. IEEE Transactions on Computers, 2014, , 1-1.	3.4	3
118	sboljs: Bringing the Synthetic Biology Open Language to the Web Browser. ACS Synthetic Biology, 2019, 8, 191-193.	3.8	3
119	Toward reproducible disease models using the Systems Biology Markup Language. Simulation, 2019, 95, 895-930.	1.8	3
120	SBOL Visual 2 Ontology. ACS Synthetic Biology, 2020, 9, 972-977.	3.8	3
121	VisBOL2â€”Improving Web-Based Visualization for Synthetic Biology Designs. ACS Synthetic Biology, 2021, 10, 2111-2115.	3.8	3
122	Curation Principles Derived from the Analysis of the SBOL iGEM Data Set. ACS Synthetic Biology, 2021, 10, 2592-2606.	3.8	3
123	Formal Analysis of a Fault-Tolerant Routing Algorithm for a Network-on-Chip. Lecture Notes in Computer Science, 2014, , 48-62.	1.3	3
124	Effecient Stochastic Simulation to Analyze Targeted Properties of Biological Systems. , 0, , .		3
125	Modular Synthesis of Timed Circuits using Partial Orders on LPNs. Electronic Notes in Theoretical Computer Science, 2002, 65, 180-201.	0.9	2
126	Application of Automated Model Generation Techniques to Analog/Mixed-Signal Circuits. , 2007, , .		2

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127	An Improvement in Partial Order Reduction Using Behavioral Analysis. , 2012, , .		2
128	Using decision diagrams to compactly represent the state space for explicit model checking. , 2012, , .		2
129	LEMA: A tool for the formal verification of digitally-intensive analog/mixed-signal circuits. , 2014, , .		2
130	Guest Editors' Introduction Challenges and Opportunities in Analog/Mixed-Signal CAD. IEEE Design and Test, 2016, 33, 5-6.	1.2	2
131	Design of Mixed-Signal Systems With Asynchronous Control. IEEE Design and Test, 2016, 33, 44-55.	1.2	2
132	Specifying Combinatorial Designs with the Synthetic Biology Open Language (SBOL). ACS Synthetic Biology, 2019, 8, 1519-1523.	3.8	2
133	SBOLExplorer: Data Infrastructure and Data Mining for Genetic Design Repositories. ACS Synthetic Biology, 2019, 8, 2287-2294.	3.8	2
134	Stochastic Hazard Analysis of Genetic Circuits in iBioSim and STAMINA. ACS Synthetic Biology, 2021, 10, 2532-2540.	3.8	2
135	Specifications of standards in systems and synthetic biology: status and developments in 2021. Journal of Integrative Bioinformatics, 2021, 18, .	1.5	2
136	A Compositional Minimization Approach for Large Asynchronous Design Verification. Lecture Notes in Computer Science, 2012, , 62-79.	1.3	2
137	Synthetic Biology Curation Tools (SYNBICT). ACS Synthetic Biology, 2021, 10, 3200-3204.	3.8	2
138	Direct synthesis of timed circuits from free-choice STGs. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2002, 21, 275-290.	2.7	1
139	A behavioral synthesis method for asynchronous circuits with bundled-data implementation (Tool) Tj ETQq1 1 0.784314 rgBT /Overlo		1
140	A Behavioral Analysis Approach for Efficient Partial Order Reduction. , 2011, , .		1
141	Advances in Formal Methods for the Design of Analog/Mixed-Signal Systems. , 2017, , .		1
142	The Synthetic Biology Open Language. Methods in Molecular Biology, 2015, 1244, 323-336.	0.9	1
143	Formal Verification of Genetic Circuits. Lecture Notes in Computer Science, 2012, , 5-5.	1.3	1
144	Hazard Checking of Timed Asynchronous Circuits Revisited. International Conference on Application of Concurrency To System Design, 2007, , .	0.0	0

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145	State space reductions for scalable verification of asynchronous designs. , 2010, , .		0
146	Erlang-delayed stochastic chemical kinetic formalism for efficient analysis of biological systems with non-elementary reaction effects. , 2011, , .		0
147	Poster Abstract: Methods and Tools for Verification of Cyber-Physical Systems. , 2012, , .		0
148	IWBDA 2012 Special Issue. ACS Synthetic Biology, 2013, 2, 203-203.	3.8	0
149	Introduction to the Special Issue on Computational Synthetic Biology. ACM Journal on Emerging Technologies in Computing Systems, 2014, 11, 1-5.	2.3	0
150	libSBOLj 2.0: A Java Library to Support SBOL 2.0. IEEE Life Sciences Letters, 2016, , 1-1.	1.2	0
151	Failure Trace Analysis of Timed Circuits for Automatic Timing Constraints Derivation. IEICE Transactions on Information and Systems, 2005, E88-D, 2555-2564.	0.7	0
152	Effective Contraction of Timed STGs for Decomposition Based Timed Circuit Synthesis. Lecture Notes in Computer Science, 2006, , 229-244.	1.3	0
153	A Conservative Framework for Safety-Failure Checking. IEICE Transactions on Information and Systems, 2008, E91-D, 642-654.	0.7	0
154	Abstraction Methods for Analysis of Gene Regulatory Networks. , 2010, , 352-385.		0
155	Efficient Analysis Methods in Synthetic Biology. Methods in Molecular Biology, 2015, 1244, 217-257.	0.9	0