Eduardo D Sontag

List of Publications by Year
in descending order

360 papers	24,920 citations	19608 61 h-index	9311 143 g-index
411 all docs	411 docs citations	411 times ranked	13651 citing authors

#	Article	IF	Citations
1	Transcriptional control of human p53-regulated genes. Nature Reviews Molecular Cell Biology, 2008, 9, 402-412.	16.1	1,669
2	On characterizations of the input-to-state stability property. Systems and Control Letters, 1995, 24, 351-359.	1.3	1,418
3	A â€˜universalâ€™ construction of Artstein's theorem on nonlinear stabilization. Systems and Control Letters, 1989, 13, 117-123.	1.3	1,089
4	Mathematical Control Theory. Texts in Applied Mathematics, 1998, , .	0.4	938
5	Detection of multistability, bifurcations, and hysteresis in a large class of biological positive-feedback systems. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 1822-1827.	3.3	879
6	Comments on integral variants of ISS. Systems and Control Letters, 1998, 34, 93-100.	1.3	739
7	A Smooth Converse Lyapunov Theorem for Robust Stability. SIAM Journal on Control and Optimization, 1996, 34, 124-160.	1.1	677
8	Building a cell cycle oscillator: hysteresis and bistability in the activation of Cdc2. Nature Cell Biology, 2003, 5, 346-351.	4.6	676
9	Remarks on feedforward circuits, adaptation, and pulse memory. IET Systems Biology, 2010, 4, 39-51.	0.8	588
10	Input to State Stability: Basic Concepts and Results. Lecture Notes in Mathematics, 2008, , 163-220.	0.1	581
11	Modular cell biology: retroactivity and insulation. Molecular Systems Biology, 2008, 4, 161.	3.2	454
12	A Lyapunov-Like Characterization of Asymptotic Controllability. SIAM Journal on Control and Optimization, 1983, 21, 462-471.	1.1	433
13	A universal formula for stabilization with bounded controls. Systems and Control Letters, 1991, 16, 393-397.	1.3	410
14	Untangling the wires: A strategy to trace functional interactions in signaling and gene networks. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 12841-12846.	3.3	386
15	Mathematical Control Theory. Texts in Applied Mathematics, 1990, , .	0.4	332
16	Analog computation via neural networks. Theoretical Computer Science, 1994, 131, 331-360.	0.5	332
17	Turing computability with neural nets. Applied Mathematics Letters, 1991, 4, 77-80.	1.5	317
18	Forward completeness, unboundedness observability, and their Lyapunov characterizations. Systems and Control Letters, 1999, 38, 209-217.	1.3	307

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19	On the Input-to-State Stability Property. European Journal of Control, 1995, 1, 24-36.	1.6	295
20	Robustness and fragility of Boolean models for genetic regulatory networks. Journal of Theoretical Biology, 2005, 235, 431-449.	0.8	295
21	Notions of input to output stability. Systems and Control Letters, 1999, 38, 235-248.	1.3	241
22	Output-to-state stability and detectability of nonlinear systems. Systems and Control Letters, 1997, 29, 279-290.	1.3	240
23	Diagonal stability of a class of cyclic systems and its connection with the secant criterion. Automatica, 2006, 42, 1531-1537.	3.0	227
24	An algebraic approach to bounded controllability of linear systemsâ€. International Journal of Control, 1984, 39, 181-188.	1.2	207
25	Fold-change detection and scalar symmetry of sensory input fields. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 15995-16000.	3.3	203
26	Lyapunov Characterizations of Input to Output Stability. SIAM Journal on Control and Optimization, 2000, 39, 226-249.	1.1	200
27	On Finite-Gain Stabilizability of Linear Systems Subject to Input Saturation. SIAM Journal on Control and Optimization, 1996, 34, 1190-1219.	1.1	193
28	Computational Aspects of Feedback in Neural Circuits. PLoS Computational Biology, 2007, 3, e165.	1.5	182
29	Synchronization of Interconnected Systems With Applications to Biochemical Networks: An Input-Output Approach. IEEE Transactions on Automatic Control, 2010, 55, 1367-1379.	3.6	182
30	Monotone and near-monotone biochemical networks. Systems and Synthetic Biology, 2007, 1, 59-87.	1.0	167
31	On the Observability of Polynomial Systems, I: Finite-Time Problems. SIAM Journal on Control and Optimization, 1979, 17, 139-151.	1.1	161
32	Input-Output-to-State Stability. SIAM Journal on Control and Optimization, 2001, 39, 1874-1928.	1.1	156
33	A â€˜resource allocatorâ€™ for transcription based on a highly fragmented T7 <scp>RNA</scp> polymerase. Molecular Systems Biology, 2014, 10, 742.	3.2	156
34	Further comments on the stabilizability of the angular velocity of a rigid body. Systems and Control Letters, 1989, 12, 213-217.	1.3	155
35	Controllability of Nonlinear Discrete-Time Systems: A Lie-Algebraic Approach. SIAM Journal on Control and Optimization, 1990, 28, 1-33.	1.1	154
36	A Petri net approach to the study of persistence in chemical reaction networks. Mathematical Biosciences, 2007, 210, 598-618.	0.9	154

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37	Synthetic incoherent feedforward circuits show adaptation to the amount of their genetic template. Molecular Systems Biology, 2011, 7, 519.	3.2	150
38	Inferring dynamic architecture of cellular networks using time series of gene expression, protein and metabolite data. Bioinformatics, 2004, 20, 1877-1886.	1.8	148
39	Global Entrainment of Transcriptional Systems to Periodic Inputs. PLoS Computational Biology, 2010, 6, e1000739.	1.5	148
40	Engineered promoters enable constant gene expression at any copy number in bacteria. Nature Biotechnology, 2018, 36, 352-358.	9.4	144
41	Multi-stability in monotone input/output systems. Systems and Control Letters, 2004, 51, 185-202.	1.3	142
42	Feedforward nets for interpolation and classification. Journal of Computer and System Sciences, 1992, 45, 20-48.	0.9	138
43	Molecular Systems Biology and Control. European Journal of Control, 2005, 11, 396-435.	1.6	137
44	A Lyapunov characterization of robust stabilization. Nonlinear Analysis: Theory, Methods & Applications, 1999, 37, 813-840.	0.6	136
45	A passivity-based stability criterion for a class of biochemical reaction networks. Mathematical Biosciences and Engineering, 2008, 5, 1-19.	1.0	136
46	Adaptation and regulation with signal detection implies internal model. Systems and Control Letters, 2003, 50, 119-126.	1.3	135
47	A Unifying Integral ISS Framework for Stability of Nonlinear Cascades. SIAM Journal on Control and Optimization, 2002, 40, 1888-1904.	1.1	127
48	Mechanism-independent method for predicting response to multidrug combinations in bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 12254-12259.	3.3	126
49	Feedback Stabilization of Nonlinear Systems. , 1990, , 61-81.		111
50	On the computational power of neural nets. , 1992, , .		110
51	The ISS philosophy as a unifying framework for stability-like behavior. , 2001, , 443-467.		103
52	Monotone Chemical Reaction Networks. Journal of Mathematical Chemistry, 2007, 41, 295-314.	0.7	97
53	On the number of steady states in a multiple futile cycle. Journal of Mathematical Biology, 2008, 57, 29-52.	0.8	97
54	A model for competition for ribosomes in the cell. Journal of the Royal Society Interface, 2016, 13, 20151062.	1.5	94

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55	Stability and stabilization: discontinuities and the effect of disturbances. , 1999, , 551-598.		93
56	Remarks on continuous feedback. , 1980, , .		92
57	Contraction methods for nonlinear systems: A brief introduction and some open problems. , 2014, , .		91
58	Clocks and Insensitivity to Small Measurement Errors. ESAIM - Control, Optimisation and Calculus of Variations, 1999, 4, 537-557.	0.7	88
59	Universal construction of feedback laws achieving ISS and integral-ISS disturbance attenuation. Systems and Control Letters, 2002, 46, 111-127.	1.3	88
60	Global stabilization of linear discrete-time systems with bounded feedback. Systems and Control Letters, 1997, 30, 273-281.	1.3	80
61	Asymptotic stability equals exponential stability, and ISS equals finite energy gain â€" if you twist your eyes. Systems and Control Letters, 1999, 38, 127-134.	1.3	80
62	Inference of signaling and gene regulatory networks by steady-state perturbation experiments: structure and accuracy. Journal of Theoretical Biology, 2005, 232, 427-441.	0.8	73
63	Algorithmic and complexity results for decompositions of biological networks into monotone subsystems. BioSystems, 2007, 90, 161-178.	0.9	71
64	For neural networks, function determines form. Neural Networks, 1993, 6, 975-990.	3.3	68
65	A Contraction Approach to the Hierarchical Analysis and Design of Networked Systems. IEEE Transactions on Automatic Control, 2013, 58, 1328-1331.	3.6	66
66	A concept of local observability. Systems and Control Letters, 1984, 5, 41-47.	1.3	65
67	Future systems and control research in synthetic biology. Annual Reviews in Control, 2018, 45, 5-17.	4.4	65
68	Contractive Systems with Inputs. Lecture Notes in Control and Information Sciences, 2010, , 217-228.	0.6	65
69	Entrainment to Periodic Initiation and Transition Rates in a Computational Model for Gene Translation. PLoS ONE, 2014, 9, e96039.	1.1	65
70	Load-Induced Modulation of Signal Transduction Networks. Science Signaling, 2011, 4, ra67.	1.6	64
71	Real addition and the polynomial hierarchy. Information Processing Letters, 1985, 20, 115-120.	0.4	62
72	Graph-theoretic characterizations of monotonicity of chemical networks in reaction coordinates. Journal of Mathematical Biology, 2010, 61, 581-616.	0.8	62

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73	Symmetry Invariance for Adapting Biological Systems. SIAM Journal on Applied Dynamical Systems, 2011, 10, 857-886.	0.7	62
74	A Dynamic Model of Immune Responses to Antigen Presentation Predicts Different Regions of Tumor or Pathogen Elimination. Cell Systems, 2017, 4, 231-241.e11.	2.9	59
75	An infinite-time relaxation theorem for differential inclusions. Proceedings of the American Mathematical Society, 2002, 131, 487-499.	0.4	58
76	A small-gain theorem with applications to input/output systems, incremental stability, detectability, and interconnections. Journal of the Franklin Institute, 2002, 339, 211-229.	1.9	58
77	Discrete-Time Transitivity and Accessibility: Analytic Systems. SIAM Journal on Control and Optimization, 1993, 31, 1599-1622.	1.1	57
78	Passivity gains and the â€œsecant conditionâ€•for stability. Systems and Control Letters, 2006, 55, 177-183.	1.3	57
79	Neural Systems as Nonlinear Filters. Neural Computation, 2000, 12, 1743-1772.	1.3	56
80	A symbolic computation approach to a problem involving multivariate Poisson distributions. Advances in Applied Mathematics, 2010, 44, 359-377.	0.4	56
81	Universal formulas for feedback stabilization with respect to Minkowski balls. Systems and Control Letters, 2000, 40, 247-260.	1.3	55
82	Minimization of thermodynamic costs in cancer cell invasion. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 1686-1691.	3.3	55
83	In vitro implementation of robust gene regulation in a synthetic biomolecular integral controller. Nature Communications, 2019, 10, 5760.	5.8	54
84	Translation-invariant monotone systems, and a global convergence result for enzymatic futile cycles. Nonlinear Analysis: Real World Applications, 2008, 9, 128-140.	0.9	53
85	An Ex Vivo Platform for the Prediction of Clinical Response in Multiple Myeloma. Cancer Research, 2017, 77, 3336-3351.	0.4	53
86	Network reconstruction based on steady-state data. Essays in Biochemistry, 2008, 45, 161-176.	2.1	53
87	Analog Neural Nets with Gaussian or Other Common Noise Distributions Cannot Recognize Arbitrary Regular Languages. Neural Computation, 1999, 11, 771-782.	1.3	52
88	Asymptotic amplitudes and Cauchy gains: a small-gain principle and an application to inhibitory biological feedback. Systems and Control Letters, 2002, 47, 167-179.	1.3	52
89	On the stability of a model of testosterone dynamics. Journal of Mathematical Biology, 2004, 49, 627-634.	0.8	52
90	Monotone systems under positive feedback: multistability and a reduction theorem. Systems and Control Letters, 2005, 54, 159-168.	1.3	52

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91	A Novel Method for Signal Transduction Network Inference from Indirect Experimental Evidence. Journal of Computational Biology, 2007, 14, 927-949.	0.8	52
92	Mathematical Approach to Differentiate Spontaneous and Induced Evolution to Drug Resistance During Cancer Treatment. JCO Clinical Cancer Informatics, 2019, 3, 1-20.	1.0	52
93	A novel COVID-19 epidemiological model with explicit susceptible and asymptomatic isolation compartments reveals unexpected consequences of timing social distancing. Journal of Theoretical Biology, 2021, 510, 110539.	0.8	50
94	Interconnections of Monotone Systems with Steady-State Characteristics. Lecture Notes in Control and Information Sciences, 0, , 135-154.	0.6	49
95	The Effect of Negative Feedback Loops on the Dynamics of Boolean Networks. Biophysical Journal, 2008, 95, 518-526.	0.2	49
96	Neural Networks with Quadratic VC Dimension. Journal of Computer and System Sciences, 1997, 54, 190-198.	0.9	48
97	Algebraic Differential Equations and Rational Control Systems. SIAM Journal on Control and Optimization, 1992, 30, 1126-1149.	1.1	47
98	Universal nonsingular controls. Systems and Control Letters, 1992, 19, 221-224.	1.3	47
99	Controllability is Harder to Decide than Accessibility. SIAM Journal on Control and Optimization, 1988, 26, 1106-1118.	1.1	46
100	On Characterizations of Input-to-State Stability with Respect to Compact Sets. , 1995, , 203-208.		46
101	Optimal Length and Signal Amplification in Weakly Activated Signal Transduction Cascades. Journal of Physical Chemistry B, 2004, 108, 15311-15320.	1.2	46
102	On the continuity and incrementalâ€gain properties of certain saturated linear feedback loops. International Journal of Robust and Nonlinear Control, 1995, 5, 413-440.	2.1	45
103	State-estimators for Chemical Reaction Networks of Feinberg-Horn-Jackson Zero Deficiency Type. European Journal of Control, 2002, 8, 343-359.	1.6	45
104	Persistence Results for Chemical Reaction Networks with Time-Dependent Kinetics and No Global Conservation Laws. SIAM Journal on Applied Mathematics, 2011, 71, 128-146.	0.8	45
105	Solving Immunology?. Trends in Immunology, 2017, 38, 116-127.	2.9	45
106	Input to state stabilizability for parametrized families of systems. International Journal of Robust and Nonlinear Control, 1995, 5, 187-205.	2.1	44
107	Finite gain stabilization of discrete-time linear systems subject to actuator saturation. Automatica, 2000, 36, 269-277.	3.0	44
108	Shape, Size, and Robustness: Feasible Regions in the Parameter Space of Biochemical Networks. PLoS Computational Biology, 2009, 5, e1000256.	1.5	44

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109	Oscillatory stimuli differentiate adapting circuit topologies. Nature Methods, 2017, 14, 1010-1016.	9.0	44
110	Sylvester domains. Journal of Pure and Applied Algebra, 1978, 13, 243-275.	0.3	43
111	Finite-dimensional open-loop control generators for non-linear systems. International Journal of Control, 1988, 47, 537-556.	1.2	42
112	Modular Design of Artificial Tissue Homeostasis: Robust Control through Synthetic Cellular Heterogeneity. PLoS Computational Biology, 2012, 8, e1002579.	1.5	41
113	Remarks on piecewise-linear algebra. Pacific Journal of Mathematics, 1982, 98, 183-201.	0.2	41
114	Global Asymptotic Controllability Implies Input-to-State Stabilization. SIAM Journal on Control and Optimization, 2004, 42, 2221-2238.	1.1	40
115	Rate of approximation results motivated by robust neural network learning. , 1993, , .		39
116	Balancing at the border of instability. Physical Review E, 2003, 68, 020901.	0.8	39
117	NET-SYNTHESIS: a software for synthesis, inference and simplification of signal transduction networks. Bioinformatics, 2008, 24, 293-295.	1.8	39
118	Evaluating optimal therapy robustness by virtual expansion of a sample population, with a case study in cancer immunotherapy. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E6277-E6286.	3.3	39
119	Observability of linear systems with saturated outputs. Linear Algebra and Its Applications, 1994, 205-206, 909-936.	0.4	38
120	A Passivity-Based Approach to Stability of Spatially Distributed Systems With a Cyclic Interconnection Structure. IEEE Transactions on Automatic Control, 2008, 53, 75-86.	3.6	38
121	Conditions for abstract nonlinear regulation. Information and Control, 1981, 51, 105-127.	1.3	37
122	Finiteness results for sigmoidal â€œneuralâ€•networks. , 1993, , .		37
123	Orders of Input/Output Differential Equations and State-Space Dimensions. SIAM Journal on Control and Optimization, 1995, 33, 1102-1126.	1.1	37
124	Revisiting totally positive differential systems: A tutorial and new results. Automatica, 2019, 101, 1-14.	3.0	37
125	New results on pole-shifting for parametrized families of systems. Journal of Pure and Applied Algebra, 1986, 40, 229-244.	0.3	36
126	On two definitions of observation spaces. Systems and Control Letters, 1989, 13, 279-289.	1.3	36

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127	Input-to-state stability for discrete-time nonlinear systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1999, 32, 2403-2408.	0.4	36
128	Chemical networks with inflows and outflows: A positive linear differential inclusions approach. Biotechnology Progress, 2009, 25, 632-642.	1.3	36
129	Synthetic mammalian transgene negative autoregulation. Molecular Systems Biology, 2013, 9, 670.	3.2	36
130	On the existence of minimal realizations of linear dynamical systems over Noetherian integral domains. Journal of Computer and System Sciences, 1979, 18, 65-75.	0.9	35
131	Randomized approximation algorithms for set multicover problems with applications to reverse engineering of protein and gene networks. Discrete Applied Mathematics, 2007, 155, 733-749.	0.5	35
132	Oscillations in I/O Monotone Systems Under Negative Feedback. IEEE Transactions on Automatic Control, 2008, 53, 166-176.	3.6	35
133	Input-to-state stability with respect to inputs and their derivatives. International Journal of Robust and Nonlinear Control, 2003, 13, 1035-1056.	2.1	33
134	On linear systems and noncommutative rings. Mathematical Systems Theory, 1975, 9, 327-344.	0.5	32
135	Complete controllability of continuous-time recurrent neural networks. Systems and Control Letters, 1997, 30, 177-183.	1.3	32
136	On Predator-Prey Systems and Small-Gain Theorems. Mathematical Biosciences and Engineering, 2005, 2, 25-42.	1.0	32
137	Contraction after small transients. Automatica, 2016, 67, 178-184.	3.0	31
138	Bilinear realizability is equivalent to existence of a singular affine differential i/o equation. Systems and Control Letters, 1988, 11, 181-187.	1.3	30
139	State observability in recurrent neural networks. Systems and Control Letters, 1994, 22, 235-244.	1.3	30
140	Honey-pot constrained searching with local sensory information. Nonlinear Analysis: Theory, Methods & Applications, 2006, 65, 1773-1793.	0.6	30
141	Non-monotonic Response to Monotonic Stimulus: Regulation of Glyoxylate Shunt Gene-Expression Dynamics in Mycobacterium tuberculosis. PLoS Computational Biology, 2016, 12, e1004741.	1.5	30
142	Logarithmic sensing in Bacillus subtilis aerotaxis. Npj Systems Biology and Applications, 2017, 3, 16036.	1.4	29
143	Multi-modality in gene regulatory networks with slow promoter kinetics. PLoS Computational Biology, 2019, 15, e1006784.	1.5	29
144	Reduction of multiscale stochastic biochemical reaction networks using exact moment derivation. PLoS Computational Biology, 2017, 13, e1005571.	1.5	28

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145	Generating series and nonlinear systems: Analytic aspects, local realizability, and i/o representations. Forum Mathematicum, 1992, 4, .	0.3	27
146	Back propagation separates where perceptrons do. Neural Networks, 1991, 4, 243-249.	3.3	26
147	On Characterizations of Input-to-State Stability with Respect to Compact Sets. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1995, 28, 203-208.	0.4	26
148	A notion of input to output stability. , 1997, , .		26
149	Control-Lyapunov functions. Communications and Control Engineering, 1999, , 211-216.	1.0	26
150	Crowding effects promote coexistence in the chemostat. Journal of Mathematical Analysis and Applications, 2006, 319, 48-60.	0.5	26
151	Computationally efficient measure of topological redundancy of biological and social networks. Physical Review E, 2011, 84, 036117.	0.8	26
152	Synchronization of Diffusively-Connected Nonlinear Systems: Results Based on Contractions with Respect to General Norms. IEEE Transactions on Network Science and Engineering, 2014, 1, 91-106.	4.1	26
153	Discriminating direct and indirect connectivities in biological networks. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12893-12898.	3.3	26
154	Translation inhibition and resource balance in the TX-TL cell-free gene expression system. Synthetic Biology, 2017, 2, ysx005.	1.2	26
155	Singularly Perturbed Monotone Systems andÂanÂApplication to Double Phosphorylation Cycles. Journal of Nonlinear Science, 2008, 18, 527-550.	1.0	25
156	Input Classes for Identifiability of Bilinear Systems. IEEE Transactions on Automatic Control, 2009, 54, 195-207.	3.6	25
157	Short-Term Circulating Tumor Cell Dynamics in Mouse Xenograft Models and Implications for Liquid Biopsy. Frontiers in Oncology, 2020, 10, 601085.	1.3	25
158	Universal features of epidemic models under social distancing guidelines. Annual Reviews in Control, 2021, 51, 426-440.	4.4	25
159	Quorum-Sensing Synchronization of Synthetic Toggle Switches: A Design Based on Monotone Dynamical Systems Theory. PLoS Computational Biology, 2016, 12, e1004881.	1.5	25
160	On some questions of rationality and decidability. Journal of Computer and System Sciences, 1975, 11, 375-381.	0.9	24
161	On split realizations of response maps over rings. Information and Control, 1978, 37, 23-33.	1.3	24
162	Linear Systems with Sign-Observations. SIAM Journal on Control and Optimization, 1993, 31, 1245-1266.	1.1	24

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163	Oscillations in multi-stable monotone systems with slowly varying feedback. Journal of Differential Equations, 2007, 239, 273-295.	1.1	24
164	Internal Models in Control, Biology and Neuroscience. , 2018, , .		24
165	Sigmoids Distinguish More Efficiently Than Heavisides. Neural Computation, 1989, 1, 470-472.	1.3	23
166	Feedback tuning of bifurcations. Systems and Control Letters, 2003, 50, 229-239.	1.3	23
167	Paradoxical Results in Perturbation-Based Signaling Network Reconstruction. Biophysical Journal, 2014, 106, 2720-2728.	0.2	23
168	Delicate Balances in Cancer Chemotherapy: Modeling Immune Recruitment and Emergence of Systemic Drug Resistance. Frontiers in Immunology, 2020, 11, 1376.	2.2	23
169	A Petri Net Approach to Persistence Analysis in Chemical Reaction Networks. Lecture Notes in Control and Information Sciences, 2007, , 181-216.	0.6	23
170	Dynamic compensation, parameter identifiability, and equivariances. PLoS Computational Biology, 2017, 13, e1005447.	1.5	23
171	Vapnik-Chervonenkis dimension of recurrent neural networks. Discrete Applied Mathematics, 1998, 86, 63-79.	0.5	22
172	Geometry and topology of parameter space: investigating measures of robustness in regulatory networks. Journal of Mathematical Biology, 2009, 59, 315-358.	0.8	22
173	Engineering Principles in Bio-molecular Systems: From Retroactivity to Modularity. European Journal of Control, 2009, 15, 389-397.	1.6	22
174	A Characterization of Scale Invariant Responses in Enzymatic Networks. PLoS Computational Biology, 2012, 8, e1002748.	1.5	22
175	Steady-states of receptorâ€“ligand dynamics: a theoretical framework. Journal of Theoretical Biology, 2004, 227, 413-428.	0.8	21
176	The Energy Costs of Insulators in Biochemical Networks. Biophysical Journal, 2013, 104, 1380-1390.	0.2	21
177	A small-gain result for orthant-monotone systems under mixed feedback. Systems and Control Letters, 2014, 68, 9-19.	1.3	21
178	On the structural monotonicity of chemical reaction networks. , 2006, , .		20
179	Inferring (Biological) Signal Transduction Networks viaÂTransitive Reductions of Directed Graphs. Algorithmica, 2008, 51, 129-159.	1.0	20
180	Worst-case identification of nonlinear fading memory systems. Automatica, 1995, 31, 503-508.	3.0	19

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181	Stability of networked systems: A multi-scale approach using contraction. , 2010, , .		19
182	Perfect adaptation of CD8 ⁺ T cell responses to constant antigen input over a wide range of affinities is overcome by costimulation. Science Signaling, 2021, 14, eaay9363.	1.6	19
183	Distributed Implementation of Boolean Functions by Transcriptional Synthetic Circuits. ACS Synthetic Biology, 2020, 9, 2172-2187.	1.9	18
184	Input/Output and State-Space Stability. , 1991, , 684-691.		18
185	Shattering All Sets of â€˜kâ€™ Points in â€œGeneral Positionâ€•Requires (k â€” 1)/2 Parameters. Neural Computation, 1997, 9, 337-348.	1.3	17
186	Remarks on universal nonsingular controls for discrete-time systems. Systems and Control Letters, 1998, 33, 81-88.	1.3	17
187	Attractors in coherent systems of differential equations. Journal of Differential Equations, 2009, 246, 3058-3076.	1.1	17
188	Mathematical Details on a Cancer Resistance Model. Frontiers in Bioengineering and Biotechnology, 2020, 8, 501.	2.0	17
189	Integrating transcriptomics and bulk time course data into a mathematical framework to describe and predict therapeutic resistance in cancer. Physical Biology, 2021, 18, 016001.	0.8	17
190	Global stability in a chemostat with multiple nutrients. Journal of Mathematical Biology, 2006, 52, 419-438.	0.8	16
191	Stability certification of large scale stochastic systems using dissipativity. Automatica, 2012, 48, 2956-2964.	3.0	16
192	Exact Moment Dynamics for Feedforward Nonlinear Chemical Reaction Networks. IEEE Life Sciences Letters, 2015, 1, 26-29.	1.2	16
193	Orbit Theorems and Sampling. , 1986, , 441-483.		16
194	Logarithmic Lipschitz norms and diffusion-induced instability. Nonlinear Analysis: Theory, Methods & Applications, 2013, 83, 31-49.	0.6	15
195	Transient dynamic phenotypes as criteria for model discrimination: fold-change detection in Rhodobacter sphaeroides chemotaxis. Journal of the Royal Society Interface, 2013, 10, 20120935.	1.5	15
196	Inferring reaction network structure from single-cell, multiplex data, using toric systems theory. PLoS Computational Biology, 2019, 15, e1007311.	1.5	15
197	Internal Models in Control, Bioengineering, and Neuroscience. Annual Review of Control, Robotics, and Autonomous Systems, 2022, 5, 55-79.	7.5	15
198	The lattice of minimal realizations of response maps over rings. Mathematical Systems Theory, 1977, 11, 169-175.	0.5	14

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199	An eigenvalue condition for sampled weak controllability of bilinear systems. Systems and Control Letters, 1986, 7, 313-315.	1.3	14
200	State-space and I/O stability for nonlinear systems. , 1995, , 215-235.		14
201	Using Fourier-neural recurrent networks to fit sequential input/output data. Neurocomputing, 1997, 15, 225-248.	3.5	14
202	Remarks regarding the gap between continuous, Lipschitz, and differentiable storage functions for dissipation inequalities appearing in Hâˆž control. Systems and Control Letters, 2000, 41, 237-249.	1.3	14
203	Modeling Proximal Tubule Cell Homeostasis: TrackingÂChangesÂinÂLuminalÂFlow. Bulletin of Mathematical Biology, 2009, 71, 1285-1322.	0.9	14
204	Reverse Engineering Validation using a Benchmark Synthetic Gene Circuit in Human Cells. ACS Synthetic Biology, 2013, 2, 255-262.	1.9	14
205	A technique for determining the signs of sensitivities of steady states in chemical reaction networks. IET Systems Biology, 2014, 8, 251-267.	0.8	14
206	Silence on the relevant literature and errors in implementation. Nature Biotechnology, 2015, 33, 336-339.	9.4	14
207	A computational framework for a Lyapunov-enabled analysis of biochemical reaction networks. PLoS Computational Biology, 2020, 16, e1007681.	1.5	14
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