Chao Tang

List of Publications by Year
in descending order

124 papers	21,422 citations	53660 45 h-index	18606 119 g-index
130 all docs	130 docs citations	130 times ranked	14976 citing authors

#	Article	IF	Citations
1	Selective crystal growth of indium selenide compounds from saturated solutions grown in a selenium vapor. Results in Materials, 2022, 13, 100253.	0.9	5
2	Cell-to-cell variability in inducible Caspase9-mediated cell death. Cell Death and Disease, 2022, 13, 34.	2.7	5
3	Computable early Caenorhabditis elegans embryo with a phase field model. PLoS Computational Biology, 2022, 18, e1009755.	1.5	10
4	Optical and Electrical Properties of InxGa1âˆ’xSe Mixed Crystal Grown from Indium Flux by Traveling Heater Method. Journal of Electronic Materials, 2021, 50, 2649-2655.	1.0	0
5	Quantitative investigation reveals distinct phases in Drosophila sleep. Communications Biology, 2021, 4, 364.	2.0	6
6	Finding gene network topologies for given biological function with recurrent neural network. Nature Communications, 2021, 12, 3125.	5.8	19
7	Volume segregation programming in a nematode's early embryogenesis. Physical Review E, 2021, 104, 054409.	0.8	4
8	Why and how the nematodeâ€™s early embryogenesis can be precise and robust: a mechanical perspective. Physical Biology, 2020, 17, 026001.	0.8	9
9	Enhancement of spin-charge current interconversion by oxidation of rhenium. Journal of Magnetism and Magnetic Materials, 2020, 516, 167298.	1.0	5
10	Protocol for Titrating Gene Expression Levels in Budding Yeast. STAR Protocols, 2020, 1, 100082.	0.5	1
11	Establishment of a morphological atlas of the Caenorhabditis elegans embryo using deep-learning-based 4D segmentation. Nature Communications, 2020, 11, 6254.	5.8	45
12	Circulating re-entrant waves promote maturation of hiPSC-derived cardiomyocytes in self-organized tissue ring. Communications Biology, 2020, 3, 122.	2.0	32
13	In_xGa_{1âˆ’x}Se mixed crystals grown from an In flux by the traveling heater method for THz wave generation. Journal of Physics Communications, 2020, 4, 065007.	0.5	3
14	Analysis of Circulating Waves in Tissue Rings derived from Human Induced Pluripotent Stem Cells. Scientific Reports, 2020, 10, 2984.	1.6	4
15	Terahertz wave generation via difference frequency generation using 2D InxGa1-xSe crystal grown from indium flux. Optics Express, 2020, 28, 472.	1.7	8
16	Computational study on ratio-sensing in yeast galactose utilization pathway. PLoS Computational Biology, 2020, 16, e1007960.	1.5	5
17	Phase-matching condition for THz wave generation via difference frequency generation using InxGa1-xSe mixed crystals. Optics Express, 2020, 28, 20888.	1.7	2
18	Cell Cycle Inhibitor Whi5 Records Environmental Information to Coordinate Growth and Division in Yeast. Cell Reports, 2019, 29, 987-994.e5.	2.9	38

#	Article	IF	Citations
19	Network Topologies That Can Achieve Dual Function of Adaptation and Noise Attenuation. Cell Systems, 2019, 9, 271-285.e7.	2.9	56
20	Optimal compressed sensing strategies for an array of nonlinear olfactory receptor neurons with and without spontaneous activity. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 20286-20295.	3.3	14
21	Growth strategy of microbes on mixed carbon sources. Nature Communications, 2019, 10, 1279.	5.8	105
22	Visualization of Genomic Loci in Living Cells with BiFCâ€TALE. Current Protocols in Cell Biology, 2019, 82, e78.	2.3	2
23	Bi-functional biochemical networks. Physical Biology, 2019, 16, 016001.	0.8	7
24	Quantitative evaluation of fiber structure by using coherent terahertz wave. Composites Part B: Engineering, 2019, 159, 1-3.	5.9	3
25	Network Motifs Capable of Decoding Transcription Factor Dynamics. Scientific Reports, 2018, 8, 3594.	1.6	26
26	Early-warning signals of critical transition: Effect of extrinsic noise. Physical Review E, 2018, 97, 032406.	0.8	10
27	Characteristics of 2D Ge-doped GaSe grown by low temperature liquid phase deposition under a controlled Se vapor pressure. Journal of Nanosciences Current Research, 2018, 03, .	1.2	5
28	Low temperature liquid phase growth of crystalline InSe grown by the temperature difference method under controlled vapor pressure. Journal of Crystal Growth, 2018, 495, 54-58.	0.7	4
29	Direct determination of the interlayer van der Waals bonding force in 2D indium selenide semiconductor crystal. Journal of Applied Physics, 2018, 123, .	1.1	5
30	Low Cell-Matrix Adhesion Reveals Two Subtypes of Human Pluripotent Stem Cells. Stem Cell Reports, 2018, 11, 142-156.	2.3	37
31	A systematic study of the determinants of protein abundance memory in cell lineage. Science Bulletin, 2018, 63, 1051-1058.	4.3	1
32	Nanog induced intermediate state in regulating stem cell differentiation and reprogramming. BMC Systems Biology, 2018, 12, 22.	3.0	31
33	Single-Cell RNA-Seq Reveals Dynamic Early Embryonic-like Programs during Chemical Reprogramming. Cell Stem Cell, 2018, 23, 31-45.e7.	5.2	122
34	Live visualization of genomic loci with BiFC-TALE. Scientific Reports, 2017, 7, 40192.	1.6	12
35	Adaptation with transcriptional regulation. Scientific Reports, 2017, 7, 42648.	1.6	25
36	Design of Tunable Oscillatory Dynamics in a Synthetic NF-ÎºB Signaling Circuit. Cell Systems, 2017, 5, 460-470.e5.	2.9	39

#	Article	IF	Citations
37	Odor-evoked inhibition of olfactory sensory neurons drives olfactory perception in Drosophila. Nature Communications, 2017, 8, 1357.	5.8	53
38	Adaptation through proportion. Physical Biology, 2016, 13, 046007.	0.8	4
39	Reliable cell cycle commitment in budding yeast is ensured by signal integration. ELife, 2015, 4, .	2.8	67
40	The Center for Quantitative Biology at Peking University. Quantitative Biology, 2015, 3, 1-3.	0.3	0
41	<i>Arabidopsis</i> DET1 degrades HFR1 but stabilizes PIF1 to precisely regulate seed germination. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3817-3822.	3.3	69
42	An Atlas of Network Topologies Reveals Design Principles for Caenorhabditis elegans Vulval Precursor Cell Fate Patterning. PLoS ONE, 2015, 10, e0131397.	1.1	2
43	Community detection for networks with unipartite and bipartite structure. New Journal of Physics, 2014, 16, 093001.	1.2	9
44	Multiple mechanisms determine the order of APC/C substrate degradation in mitosis. Journal of Cell Biology, 2014, 207, 23-39.	2.3	68
45	Costs and Benefits of Mutational Robustness in RNA Viruses. Cell Reports, 2014, 8, 1026-1036.	2.9	49
46	Synergistic and Antagonistic Drug Combinations Depend on Network Topology. PLoS ONE, 2014, 9, e93960.	1.1	99
47	QB: A new inter- and multi-disciplinary forum for modeling, engineering and understanding life. Quantitative Biology, 2013, 1, 1-2.	0.3	7
48	Bridging cross-cultural gaps in scientific exchange through innovative team challenge workshops. Quantitative Biology, 2013, 1, 3-8.	0.3	0
49	Generic properties of random gene regulatory networks. Quantitative Biology, 2013, 1, 253-260.	0.3	15
50	Design Principles of Regulatory Networks: Searching for the Molecular Algorithms of the Cell. Molecular Cell, 2013, 49, 202-212.	4.5	139
51	Induction of Pluripotency in Mouse Somatic Cells with Lineage Specifiers. Cell, 2013, 153, 963-975.	13.5	272
52	Design Principles of the Yeast G1/S Switch. PLoS Biology, 2013, 11, e1001673.	2.6	51
53	A light-inducible organelle-targeting system for dynamically activating and inactivating signaling in budding yeast. Molecular Biology of the Cell, 2013, 24, 2419-2430.	0.9	90
54	Designing the Scientific Cradle for Quantitative Biologists. ACS Synthetic Biology, 2012, 1, 254-255.	1.9	3

#	ARTICLE	IF	CITATIONS
55	Cell cycle synchronization by nutrient modulation. Integrative Biology (United Kingdom), 2012, 4, 328.	0.6	21
56	Hierarchical Modularity and the Evolution of Genetic Interactomes across Species. Molecular Cell, 2012, 46, 691-704.	4.5	185
57	Designing Synthetic Regulatory Networks Capable of Self-Organizing Cell Polarization. Cell, 2012, 151, 320-332.	13.5	163
58	Flux Balance Analysis of Ammonia Assimilation Network in E. coli Predicts Preferred Regulation Point. PLoS ONE, 2011, 6, e16362.	1.1	9
59	Decision making of the p53 network: Death by integration. Journal of Theoretical Biology, 2011, 271, 205-211.	0.8	38
60	Modular analysis of the probabilistic genetic interaction network. Bioinformatics, 2011, 27, 853-859.	1.8	10
61	De Novo Design of a Î²Î±Î²â€…Motif. Angewandte Chemie - International Edition, 2009, 48, 3301-3303.	7.2	43
62	Defining Network Topologies that Can Achieve Biochemical Adaptation. Cell, 2009, 138, 760-773.	13.5	1,354
63	A more robust Boolean model describing inhibitor binding. Frontiers of Electrical and Electronic Engineering in China: Selected Publications From Chinese Universities, 2008, 3, 371-375.	0.6	0
64	Finding multiple target optimal intervention in diseaseâ€related molecular network. Molecular Systems Biology, 2008, 4, 228.	3.2	165
65	Robust, Tunable Biological Oscillations from Interlinked Positive and Negative Feedback Loops. Science, 2008, 321, 126-129.	6.0	602
66	Rationalizing translation attenuation in the network architecture of the unfolded protein response. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 20280-20285.	3.3	51
67	SCUMBLE: a method for systematic and accurate detection of codon usage bias by maximum likelihood estimation. Nucleic Acids Research, 2008, 36, 3819-3827.	6.5	13
68	Dynamic Simulations on the Arachidonic Acid Metabolic Network. PLoS Computational Biology, 2007, 3, e55.	1.5	90
69	Hydrophobic interaction and hydrogen-bond network for a methane pair in liquid water. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 2626-2630.	3.3	78
70	Function constrains network architecture and dynamics: A case study on the yeast cell cycle Boolean network. Physical Review E, 2007, 75, 051907.	0.8	81
71	Dynamic Properties of Cell-Cycle and Life-Cycle Networks in Budding Yeast. , 2007, , 217-227.		0
72	Dynamic Studies of Scaffold-Dependent Mating Pathway in Yeast. Biophysical Journal, 2006, 91, 3986-4001.	0.2	28

#	Article	IF	Citations
73	Robustness and modular design of the Drosophila segment polarity network. Molecular Systems Biology, 2006, 2, 70.	3.2	114
74	Stochastic model of yeast cell-cycle network. Physica D: Nonlinear Phenomena, 2006, 219, 35-39.	1.3	67
75	Gibbs sampling and helix-cap motifs. Nucleic Acids Research, 2005, 33, 5343-5353.	6.5	10
76	Specificity of Trypsin and Chymotrypsin: Loop-Motion-Controlled Dynamic Correlation as a Determinant. Biophysical Journal, 2005, 89, 1183-1193.	0.2	104
77	Simulation and Analysis ofin vitroDNA Evolution. Physical Review Letters, 2004, 92, 038101.	2.9	12
78	Correlation between sequence hydrophobicity and surface-exposure pattern of database proteins. Protein Science, 2004, 13, 752-762.	3.1	90
79	Flexibility of Î²-sheets: Principal component analysis of database protein structures. Proteins: Structure, Function and Bioinformatics, 2004, 55, 91-98.	1.5	43
80	Designability and thermal stability of protein structures. Polymer, 2004, 45, 699-705.	1.8	35
81	The yeast cell-cycle network is robustly designed. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 4781-4786.	3.3	953
82	Flexibility of Î±-Helices: Results of a Statistical Analysis of Database Protein Structures. Journal of Molecular Biology, 2003, 327, 229-237.	2.0	62
83	Structure space of model proteins: A principal component analysis. Journal of Chemical Physics, 2003, 118, 4277-4284.	1.2	8
84	Origin of scaling behavior of protein packing density: A sequential Monte Carlo study of compact long chain polymers. Journal of Chemical Physics, 2003, 118, 6102-6109.	1.2	56
85	Statistical mechanics of RNA folding: Importance of alphabet size. Physical Review E, 2003, 68, 041904.	0.8	11
86	Designability of Â-helical proteins. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 11163-11168.	3.3	28
87	Fast tree search for enumeration of a lattice model of protein folding. Journal of Chemical Physics, 2002, 116, 352.	1.2	29
88	Identifying proteins of high designability via surface-exposure patterns. Proteins: Structure, Function and Bioinformatics, 2002, 47, 295-304.	1.5	14
89	Emergence of highly designable protein-backbone conformations in an off-lattice model. Proteins: Structure, Function and Bioinformatics, 2002, 47, 506-512.	1.5	42
90	Designability of protein structures: A lattice-model study using the Miyazawa-Jernigan matrix. Proteins: Structure, Function and Bioinformatics, 2002, 49, 403-412.	1.5	60

#	Article	IF	Citations
91	The designability of protein structures. Journal of Molecular Graphics and Modelling, 2001, 19, 157-167.	1.3	56
92	Exact solution of a stochastic directed sandpile model. Physical Review E, 2001, 63, 026111.	0.8	28
93	Simple models of the protein folding problem. Physica A: Statistical Mechanics and Its Applications, 2000, 288, 31-48.	1.2	35
94	Symmetry and designability for lattice protein models. Journal of Chemical Physics, 2000, 113, 8329-8336.	1.2	37
95	1/fNoise in Bak-Tang-Wiesenfeld Models on Narrow Stripes. Physical Review Letters, 1999, 83, 2449-2452.	2.9	34
96	Incommensurability in the frustrated two-dimensionalXYmodel. Physical Review B, 1999, 60, 3163-3168.	1.1	26
97	Low-energy excitations and phase transitions in the frustrated two-dimensionalXYmodel. Physical Review B, 1998, 58, 6591-6607.	1.1	9
98	Nature of Driving Force for Protein Folding: A Result From Analyzing the Statistical Potential. Physical Review Letters, 1997, 79, 765-768.	2.9	195
99	Domain Walls and Phase Transitions in the Frustrated Two-DimensionalXYModel. Physical Review Letters, 1997, 79, 451-454.	2.9	17
100	Nature of Phase Transitions of Superconducting Wire Networks in a Magnetic Field. Physical Review Letters, 1996, 76, 2989-2992.	2.9	62
101	Peak effect in superconductors: melting of Larkin domains. Europhysics Letters, 1996, 35, 597-602.	0.7	42
102	Correction of partial-volume effects in phase-contrast flow measurements. Journal of Magnetic Resonance Imaging, 1995, 5, 175-180.	1.9	50
103	Tang, Feng, and Golubovic Reply:. Physical Review Letters, 1995, 74, 3500-3500.	2.9	1
104	Phases of Josephson Junction Ladders. Physical Review Letters, 1995, 75, 3930-3933.	2.9	44
105	Dynamics of a driven single flux line in superconductors. Physical Review B, 1995, 51, 8457-8461.	1.1	1
106	Self-Organized Criticality in Nonconserved Systems. Physical Review Letters, 1995, 74, 742-745.	2.9	112
107	Dynamics and noise spectra of a driven single flux line in superconductors. Physical Review Letters, 1994, 72, 1264-1267.	2.9	23
108	Accuracy of phase-contrast flow measurements in the presence of partial-volume effects. Journal of Magnetic Resonance Imaging, 1993, 3, 377-385.	1.9	276

#	Article	IF	Citations
109	SOC and the Bean critical state. Physica A: Statistical Mechanics and Its Applications, 1993, 194, 315-320.	1.2	47
110	Patterns and scaling properties in a ballistic deposition model. Physical Review Letters, 1993, 71, 2769-2772.	2.9	18
111	A forest-fire model and some thoughts on turbulence. Physics Letters, Section A: General, Atomic and Solid State Physics, 1990, 147, 297-300.	0.9	388
112	Droplet model for autocorrelation functions in an Ising ferromagnet. Physical Review A, 1989, 40, 995-1003.	1.0	27
113	Comment on "Relaxation at the Angle of Repose". Physical Review Letters, 1989, 62, 110-110.	2.9	6
114	A physicist's sandbox. Journal of Statistical Physics, 1989, 54, 1441-1458.	0.5	52
115	Mean field theory of self-organized critical phenomena. Journal of Statistical Physics, 1988, 51, 797-802.	0.5	151
116	Critical Exponents and Scaling Relations for Self-Organized Critical Phenomena. Physical Review Letters, 1988, 60, 2347-2350.	2.9	360
117	Self-organized criticality. Physical Review A, 1988, 38, 364-374.	1.0	3,730
118	Phase organization. Physical Review Letters, 1987, 58, 1161-1164.	2.9	98
119	Critical wave functions and a Cantor-set spectrum of a one-dimensional quasicrystal model. Physical Review B, 1987, 35, 1020-1033.	1.1	662
120	Self-organized criticality: An explanation of the 1/fnoise. Physical Review Letters, 1987, 59, 381-384.	2.9	6,415
121	Viscous flows in two dimensions. Reviews of Modern Physics, 1986, 58, 977-999.	16.4	674
122	Global scaling properties of the spectrum for a quasiperiodic schrÃ¶dinger equation. Physical Review B, 1986, 34, 2041-2044.	1.1	165
123	Diffusion-limited aggregation and the Saffman-Taylor problem. Physical Review A, 1985, 31, 1977-1979.	1.0	181
124	Localization Problem in One Dimension: Mapping and Escape. Physical Review Letters, 1983, 50, 1870-1872.	2.9	1,018