

# Rui Liu

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4572847/publications.pdf>

Version: 2024-02-01

62  
papers

2,860  
citations

257101

24  
h-index

197535

49  
g-index

63  
all docs

63  
docs citations

63  
times ranked

2243  
citing authors

#	ARTICLE	IF	CITATIONS
1	Detecting early-warning signals for sudden deterioration of complex diseases by dynamical network biomarkers. <i>Scientific Reports</i> , 2012, 2, 342.	1.6	494
2	Identifying critical state of complex diseases by single-sample Kullback-Leibler divergence. <i>BMC Genomics</i> , 2020, 21, 87.	1.2	334
3	Early Diagnosis of Complex Diseases by Molecular Biomarkers, Network Biomarkers, and Dynamical Network Biomarkers. <i>Medicinal Research Reviews</i> , 2014, 34, 455-478.	5.0	252
4	Identifying critical transitions and their leading biomolecular networks in complex diseases. <i>Scientific Reports</i> , 2012, 2, 813.	1.6	155
5	Detecting tissue-specific early warning signals for complex diseases based on dynamical network biomarkers: study of type 2 diabetes by cross-tissue analysis. <i>Briefings in Bioinformatics</i> , 2014, 15, 229-243.	3.2	119
6	Mode selectivity in methane dissociative chemisorption on Ni(111). <i>Chemical Science</i> , 2013, 4, 3249.	3.7	115
7	Quantifying critical states of complex diseases using single-sample dynamic network biomarkers. <i>PLoS Computational Biology</i> , 2017, 13, e1005633.	1.5	90
8	Mode Selectivity for a Central-Barrier Reaction: Eight-Dimensional Quantum Studies of the $O(^3P) + CH_4 \rightarrow OH + CH_3$ Reaction on an Ab Initio Potential Energy Surface. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 3776-3780.	2.1	87
9	Identifying critical transitions of complex diseases based on a single sample. <i>Bioinformatics</i> , 2014, 30, 1579-1586.	1.8	82
10	Identifying early-warning signals of critical transitions with strong noise by dynamical network markers. <i>Scientific Reports</i> , 2015, 5, 17501.	1.6	80
11	Rotational mode specificity in the $Cl + CHD_3 \rightarrow HCl + CD_3$ reaction. <i>Journal of Chemical Physics</i> , 2014, 141, 074310.	1.2	75
12	Detecting early-warning signals of type 1 diabetes and its leading biomolecular networks by dynamical network biomarkers. <i>BMC Medical Genomics</i> , 2013, 6, S8.	0.7	74
13	Dynamical network biomarkers for identifying critical transitions and their driving networks of biologic processes. <i>Quantitative Biology</i> , 2013, 1, 105-114.	0.3	62
14	Hunt for the tipping point during endocrine resistance process in breast cancer by dynamic network biomarkers. <i>Journal of Molecular Cell Biology</i> , 2019, 11, 649-664.	1.5	57
15	An eight-dimensional quantum mechanical Hamiltonian for X + YCZ <sub>3</sub> system and its applications to H + CH <sub>4</sub> reaction. <i>Journal of Chemical Physics</i> , 2012, 137, 174113.	1.2	53
16	Single-sample landscape entropy reveals the imminent phase transition during disease progression. <i>Bioinformatics</i> , 2020, 36, 1522-1532.	1.8	53
17	Detecting critical state before phase transition of complex biological systems by hidden Markov model. <i>Bioinformatics</i> , 2016, 32, 2143-2150.	1.8	50
18	Autoreservoir computing for multistep ahead prediction based on the spatiotemporal information transformation. <i>Nature Communications</i> , 2020, 11, 4568.	5.8	49

#	ARTICLE	IF	CITATIONS
19	Deciphering early development of complex diseases by progressive module network. <i>Methods</i> , 2014, 67, 334-343.	1.9	42
20	Detecting early warning signals of influenza outbreak based on dynamic network marker. <i>Journal of Cellular and Molecular Medicine</i> , 2019, 23, 395-404.	1.6	40
21	NLP based congestive heart failure case finding: A prospective analysis on statewide electronic medical records. <i>International Journal of Medical Informatics</i> , 2015, 84, 1039-1047.	1.6	38
22	Detecting the tipping points in a three-state model of complex diseases by temporal differential networks. <i>Journal of Translational Medicine</i> , 2017, 15, 217.	1.8	37
23	Identifying critical differentiation state of MCF-7 cells for breast cancer by dynamical network biomarkers. <i>Frontiers in Genetics</i> , 2015, 6, 252.	1.1	33
24	Edge biomarkers for classification and prediction of phenotypes. <i>Science China Life Sciences</i> , 2014, 57, 1103-1114.	2.3	30
25	Dynamical network biomarkers: Theory and applications. <i>Gene</i> , 2022, 808, 145997.	1.0	29
26	Mechanism of acute lung injury due to phosgene exposition and its protection by caffeic acid phenethyl ester in the rat. <i>Experimental and Toxicologic Pathology</i> , 2013, 65, 311-318.	2.1	27
27	Predicting local COVID-19 outbreaks and infectious disease epidemics based on landscape network entropy. <i>Science Bulletin</i> , 2021, 66, 2265-2270.	4.3	24
28	Identifying Critical State of Complex Diseases by Single-Sample-Based Hidden Markov Model. <i>Frontiers in Genetics</i> , 2019, 10, 285.	1.1	21
29	Dynamic Network Biomarker of Pre-Exhausted CD8+ T Cells Contributed to T Cell Exhaustion in Colorectal Cancer. <i>Frontiers in Immunology</i> , 2021, 12, 691142.	2.2	19
30	Some new nonlinear wave solutions for two (3+1)-dimensional equations. <i>Applied Mathematics and Computation</i> , 2015, 260, 397-411.	1.4	17
31	Defining and characterizing the critical transition state prior to the type 2 diabetes disease. <i>PLoS ONE</i> , 2017, 12, e0180937.	1.1	16
32	scGET: Predicting Cell Fate Transition During Early Embryonic Development by Single-cell Graph Entropy. <i>Genomics, Proteomics and Bioinformatics</i> , 2021, 19, 461-474.	3.0	16
33	Oleic Acid Attenuates Ang II (Angiotensin II)-Induced Cardiac Remodeling by Inhibiting FGF23 (Fibroblast) Tj ETQq1 <sub>1,3</sub> 1.0.784314 rgBT / DV	1.3	14
34	Cerebrospinal fluid protein dynamic driver network: At the crossroads of brain tumorigenesis. <i>Methods</i> , 2015, 83, 36-43.	1.9	11
35	Collective fluctuation implies imminent state transition. <i>Physics of Life Reviews</i> , 2021, 37, 103-107.	1.5	9
36	Some new results on explicit traveling wave solutions of $K(m, n)$ equation. <i>Discrete and Continuous Dynamical Systems - Series B</i> , 2010, 13, 633-646.	0.5	9

#	ARTICLE	IF	CITATIONS
37	Vec2image: an explainable artificial intelligence model for the feature representation and classification of high-dimensional biological data by vector-to-image conversion. Briefings in Bioinformatics, 2022, 23, .	3.2	9
38	COEXISTENCE OF MULTIFARIOUS EXACT NONLINEAR WAVE SOLUTIONS FOR GENERALIZED b-EQUATION. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2010, 20, 3193-3208.	0.7	8
39	Bifurcations of Solitary Waves of a Simple Equation. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2020, 30, 2050138.	0.7	8
40	Development of a dynamic network biomarkers method and its application for detecting the tipping point of prior disease development. Computational and Structural Biotechnology Journal, 2022, 20, 1189-1197.	1.9	8
41	Identifying the critical states of complex diseases by the dynamic change of multivariate distribution. Briefings in Bioinformatics, 2022, 23, .	3.2	8
42	Single-Sample Node Entropy for Molecular Transition in Pre-deterioration Stage of Cancer. Frontiers in Bioengineering and Biotechnology, 2020, 8, 809.	2.0	7
43	Identifying pre-outbreak signals of hand, foot and mouth disease based on landscape dynamic network marker. BMC Infectious Diseases, 2021, 21, 6.	1.3	7
44	Forecasting the COVID-19 transmission in Italy based on the minimum spanning tree of dynamic region network. PeerJ, 2021, 9, e11603.	0.9	7
45	Single-cell transcriptomics reveal DHX9 in mature B cell as a dynamic network biomarker before lymph node metastasis in CRC. Molecular Therapy - Oncolytics, 2021, 22, 495-506.	2.0	7
46	Several new types of solitary wave solutions for the generalized Camassa-Holm-Degasperis-Procesi equation. Communications on Pure and Applied Analysis, 2010, 9, 77-90.	0.4	7
47	SOME COMMON EXPRESSIONS AND NEW BIFURCATION PHENOMENA FOR NONLINEAR WAVES IN A GENERALIZED mKdV EQUATION. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2013, 23, 1330007.	0.7	6
48	The explicit periodic wave solutions and their limit forms for a generalized b-equation. Acta Mathematicae Applicatae Sinica, 2016, 32, 513-528.	0.4	6
49	Rapid diagnosis and comprehensive bacteria profiling of sepsis based on cell-free DNA. Journal of Translational Medicine, 2020, 18, 5.	1.8	6
50	Blow-up solutions for a case of b-family equations. Acta Mathematica Scientia, 2020, 40, 910-920.	0.5	6
51	A ten-dimensional quantum dynamics model for the X + YCAB2 reaction: Application to H + CH4 reaction. Journal of Chemical Physics, 2020, 153, 224119.	1.2	6
52	Intrinsic entropy model for feature selection of scRNA-seq data. Journal of Molecular Cell Biology, 2022, 14, .	1.5	6
53	A quantitative method to project the probability of the end of an epidemic: Application to the COVID-19 outbreak in Wuhan, 2020. Journal of Theoretical Biology, 2022, 545, 111149.	0.8	6
54	Identifying the critical states and dynamic network biomarkers of cancers based on network entropy. Journal of Translational Medicine, 2022, 20, .	1.8	6

#	ARTICLE	IF	CITATIONS
55	Detecting the outbreak of influenza based on the shortest path of dynamic city network. PeerJ, 2020, 8, e9432.	0.9	5
56	Bifurcations and Exact Solutions in a Nonlinear Wave Equation. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2019, 29, 1950098.	0.7	4
57	Real-Time Forecast of Influenza Outbreak Using Dynamic Network Marker Based on Minimum Spanning Tree. BioMed Research International, 2020, 2020, 1-11.	0.9	4
58	Existence and critical speed of traveling wave fronts in a modified vector disease model with distributed delay. Journal of Dynamical and Control Systems, 2012, 18, 355-378.	0.4	3
59	Some Explicit Expressions and Interesting Bifurcation Phenomena for Nonlinear Waves in Generalized Zakharov Equations. Abstract and Applied Analysis, 2013, 2013, 1-19.	0.3	3
60	Traveling wave solutions in n-dimensional delayed nonlocal diffusion system with mixed quasimonotonicity. Analysis and Applications, 2015, 13, 23-43.	1.2	1
61	Existence and Asymptotic Behavior of Traveling Wave Fronts for a Time-Delayed Degenerate Diffusion Equation. Abstract and Applied Analysis, 2013, 2013, 1-20.	0.3	0
62	CSF protein dynamic driver network: At the crossroads of brain tumorigenesis. , 2014, , .		0