Tamiki Komatsuzaki

List of Publications by Citations

Source: https://exaly.com/author-pdf/1041286/tamiki-komatsuzaki-publications-by-citations.pdf
Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.
The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

96 papers	1,794 citations	25 h-index	38 g-index
104 ext. papers	1,972 ext. citations	4.8 avg, IF	4.77 L-index

#	Paper	IF	Citations
96	Multiscale complex network of protein conformational fluctuations in single-molecule time series. *Proceedings of the National Academy of Sciences of the United States of America*, **2008**, 105, 536-41	11.5	123
95	Regularity in chaotic reaction paths. I. Ar6. *Journal of Chemical Physics*, **1999**, 110, 9160-9173	3.9	99
94	Variable Cell Growth Yields Reproducible OrganDevelopment through Spatiotemporal Averaging. *Developmental Cell*, **2016**, 38, 15-32	10.2	97
93	Dynamical hierarchy in transition states: why and how does a system climb over the mountain?. *Proceedings of the National Academy of Sciences of the United States of America*, **2001**, 98, 7666-71	11.5	75
92	Construction of effective free energy landscape from single-molecule time series. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 19297-302	11.5	66
91	Energetics of proton transfer in liquid water. I. Ab initio study for origin of many-body interaction and potential energy surfaces. *Chemical Physics*, **1994**, 180, 239-269	2.3	65
90	Fast Step Transition and State Identification (STaSI) for Discrete Single-Molecule Data Analysis. *Journal of Physical Chemistry Letters*, **2014**, 5, 3157-3161	6.4	60
89	Definability of no-return transition states in the high-energy regime above the reaction threshold. *Physical Review Letters*, **2006**, 97, 028302	7.4	60
88	Mechanical Shielding of Rapidly Growing Cells Buffers Growth Heterogeneity and Contributes to Organ Shape Reproducibility. *Current Biology*, **2017**, 27, 3468-3479.e4	6.3	52
87	Dynamic disorder in single-enzyme experiments: facts and artifacts. *ACS Nano*, **2012**, 6, 346-54	16.7	50
86	Chemical Reaction Dynamics: Many-Body Chaos and Regularity. *Advances in Chemical Physics*, **2003**, 79-152		46
85	Development of a technique for the investigation of folding dynamics of single proteins for extended time periods. *Proceedings of the National Academy of Sciences of the United States of America*, **2007**, 104, 10453-8	11.5	42
84	Dynamical switching of a reaction coordinate to carry the system through to a different product state at high energies. *Physical Review Letters*, **2011**, 106, 054101	7.4	38
83	Local regularity and non-recrossing path in transition state□ new strategy in chemical reaction theories. *Computational and Theoretical Chemistry*, **2000**, 506, 55-70		38
82	Phase-space reaction network on a multisaddle energy landscape: HCN isomerization. *Journal of Chemical Physics*, **2005**, 123, 184301	3.9	37
81	Topographical complexity of multidimensional energy landscapes. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 18551-5	11.5	32
80	Regularity in chaotic reaction paths II: Ar6. Energy dependence and visualization of the reaction bottleneck. *Physical Chemistry Chemical Physics*, **1999**, 1, 1387-1397	3.6	31

79	Study on Regularity of barrier recrossing motion. *Journal of Chemical Physics*, **1996**, 105, 10838-10848	3.9	30
78	Dynamic pathways to mediate reactions buried in thermal fluctuations. I. Time-dependent normal form theory for multidimensional Langevin equation. *Journal of Chemical Physics*, **2009**, 131, 224505	3.9	29
77	Robust existence of a reaction boundary to separate the fate of a chemical reaction. *Physical Review Letters*, **2010**, 105, 048304	7.4	28
76	Bifurcation of no-return transition states in many-body chemical reactions. *Journal of Chemical Physics*, **2009**, 130, 124116	3.9	27
75	Regularity in chaotic reaction paths III: Ar6 local invariances at the reaction bottleneck. *Journal of Chemical Physics*, **2001**, 115, 4105-4117	3.9	27
74	Kinetic Analysis for the Multistep Profiles of Organic Reactions: Significance of the Conformational Entropy on the Rate Constants of the Claisen Rearrangement. *Journal of Physical Chemistry A*, **2015**, 119, 11641-9	2.8	26
73	Derivation of the generalized Langevin equation in nonstationary environments. *Journal of Chemical Physics*, **2011**, 134, 114523	3.9	26
72	Fractional behavior in multidimensional Hamiltonian systems describing reactions. *Physical Review E*, **2007**, 76, 056205	2.4	26
71	A dividing surface free from a barrier recrossing motion in many-body systems. *Chemical Physics Letters*, **1997**, 265, 91-98	2.5	24
70	A Dynamical Propensity Rule for Transitions in Chemical Reactions *Journal of Physical Chemistry A*, **2002**, 106, 10945-10950	2.8	23
69	Quantum reaction boundary to mediate reactions in laser fields. *Journal of Chemical Physics*, **2011**, 134, 024317	3.9	22
68	Aggregated markov model using time series of single molecule dwell times with minimum excessive information. *Physical Review Letters*, **2013**, 111, 058301	7.4	20
67	FRET monitoring of a nonribosomal peptide synthetase. *Nature Chemical Biology*, **2017**, 13, 1009-1015	11.7	18
66	ATP hydrolysis assists phosphate release and promotes reaction ordering in F1-ATPase. *Nature Communications*, **2015**, 6, 10223	17.4	18
65	New quantification of local transition heterogeneity of multiscale complex networks constructed from single-molecule time series. *Journal of Physical Chemistry B*, **2009**, 113, 14732-41	3.4	18
64	Long-term observation of fluorescence of free single molecules to explore protein-folding energy landscapes. *Journal of the American Chemical Society*, **2012**, 134, 11525-32	16.4	17
63	Reactivity boundaries for chemical reactions associated with higher-index and multiple saddles. *Physical Review E*, **2013**, 88, 042923	2.4	17
62	Dynamic pathways to mediate reactions buried in thermal fluctuations. II. Numerical illustrations using a model system. *Journal of Chemical Physics*, **2009**, 131, 224506	3.9	17

61	Anomalous diffusion in folding dynamics of minimalist protein landscape. *Physical Review Letters*, **2007**, 99, 238103	7.4	17
60	Extracting Subcellular Fibrillar Alignment with Error Estimation: Application to Microtubules. *Biophysical Journal*, **2016**, 110, 1836-1844	2.9	15
59	Time-resolved single molecule fluorescence spectroscopy of an α-chymotrypsin catalyzed reaction. *Journal of Physical Chemistry B*, **2013**, 117, 1252-60	3.4	15
58	Hierarchy of reaction dynamics in a thermally fluctuating environment. *Physical Chemistry Chemical Physics*, **2010**, 12, 7626-35	3.6	15
57	Regularity in Chaotic Transitions on Two-Basin Landscapes. *Advances in Chemical Physics*, **2005**, 143-170		15
56	Extracting the underlying effective free energy landscape from single-molecule time series--local equilibrium states and their network. *Physical Chemistry Chemical Physics*, **2011**, 13, 1395-406	3.6	14
55	Dynamic reaction coordinate in thermally fluctuating environment in the framework of the multidimensional generalized Langevin equations. *Physical Chemistry Chemical Physics*, **2010**, 12, 15382-91	3.6	14
54	Breakdown mechanisms of normally hyperbolic invariant manifolds in terms of unstable periodic orbits and homoclinic/heteroclinic orbits in Hamiltonian systems. *Nonlinearity*, **2015**, 28, 2677-2698	1.7	13
53	Error-based extraction of states and energy landscapes from experimental single-molecule time-series. *Scientific Reports*, **2015**, 5, 9174	4.9	13
52	Nonlinear dynamical effects on reaction rates in thermally fluctuating environments. *Physical Chemistry Chemical Physics*, **2010**, 12, 7636-47	3.6	13
51	Dynamical foundation and limitations of statistical reaction theory. *Communications in Nonlinear Science and Numerical Simulation*, **2008**, 13, 857-867	3.7	13
50	Deciphering Time Scale Hierarchy in Reaction Networks. *Journal of Physical Chemistry B*, **2016**, 120, 1961-71	3.4	12
49	Why and how do systems react in thermally fluctuating environments?. *Physical Chemistry Chemical Physics*, **2011**, 13, 21217-29	3.6	12
48	Probing remnants of invariants to mediate energy exchange in highly chaotic many-dimensional systems. *Physical Review E*, **2008**, 78, 017202	2.4	12
47	Dimension reduction for extracting geometrical structure of multidimensional phase space: Application to fast energy exchange in the reaction O(D1)+N2O→NO+NO. *Physical Review A*, **2007**, 75,	2.6	12
46	Multibasin Dynamics in Off-Lattice Minimalist Protein Landscapes. *Journal of Physical Chemistry A*, **2002**, 106, 10898-10907	2.8	12
45	Single Molecule Data Analysis: An Introduction. *Advances in Chemical Physics*, **2017**, 205-305		11
44	High-Resolution Raman Microscopic Detection of Follicular Thyroid Cancer Cells with Unsupervised Machine Learning. *Journal of Physical Chemistry B*, **2019**, 123, 4358-4372	3.4	11

43	Mechanism and Experimental Observability of Global Switching Between Reactive and Nonreactive Coordinates at High Total Energies. *Physical Review Letters*, **2015**, 115, 093003	7.4	11
42	Deciphering hierarchical features in the energy landscape of adenylate kinase folding/unfolding. *Journal of Chemical Physics*, **2018**, 148, 123325	3.9	10
41	Reactivity boundaries to separate the fate of a chemical reaction associated with an index-two saddle. *Physical Review E*, **2013**, 87, 062817	2.4	10
40	Electronic spectra of ion pairs of picrate ion withalkali-metal polyether complexes in non-aqueoussolvents. *Journal of the Chemical Society, Faraday Transactions*, **1997**, 93, 1903-1908		9
39	Exploring remnants of invariants buried in a deep potential well in chemical reactions. *Journal of Chemical Physics*, **2008**, 129, 094302	3.9	9
38	Wavelet analysis and Arnold web picture for detecting energy transfer in a Hamiltonian dynamical system. *Laser Physics*, **2006**, 16, 1097-1106	1.2	9
37	Raman spectroscopic histology using machine learning for nonalcoholic fatty liver disease. *FEBS Letters*, **2019**, 593, 2535-2544	3.8	8
36	Non-Markovian properties and multiscale hidden Markovian network buried in single molecule time series. *Journal of Chemical Physics*, **2013**, 139, 245101	3.9	7
35	Phase space geometry of dynamics passing through saddle coupled with spatial rotation. *Journal of Chemical Physics*, **2011**, 134, 084304	3.9	7
34	Proton Transfer in Liquid Water II; A Semiempirical Method to Describe Chemical Reactions. *Molecular Simulation*, **1996**, 16, 321-344	2	6
33	Effects of non-equilibrium angle fluctuation on F-ATPase kinetics induced by temperature increase. *Physical Chemistry Chemical Physics*, **2018**, 20, 1872-1880	3.6	5
32	Dynamical Reaction Theory based on Geometric Structures in Phase Space. *Advances in Chemical Physics*, **2011**, 123-169		5
31	Laser Control of Chemical Reactions by Phase Space Structures. *Bulletin of the Chemical Society of Japan*, **2012**, 85, 854-861	5.1	4
30	Inferring domain of interactions among particles from ensemble of trajectories. *Physical Review E*, **2020**, 102, 012404	2.4	4
29	Multidimensional Energy Landscapes in Single-Molecule Biophysics. *Advances in Chemical Physics*, **2011**, 299-327		3
28	Minor-embedding heuristics for large-scale annealing processors with sparse hardware graphs of up to 102,400 nodes. *Soft Computing*, **2021**, 25, 1731-1749	3.5	3
27	An information-theoretic approach to infer the underlying interaction domain among elements from finite length trajectories in a noisy environment. *Journal of Chemical Physics*, **2021**, 154, 034901	3.9	3
26	Graph Minors from Simulated Annealing for Annealing Machines with Sparse Connectivity. *Lecture Notes in Computer Science*, **2018**, 111-123	0.9	3

25	Local-heterogeneous responses and transient dynamics of cage breaking and formation in colloidal fluids. *Journal of Chemical Physics*, **2014**, 141, 104907	3.9	2
24	Numerical construction of estimators for single-molecule fluorescence measurements. *Journal of Physical Chemistry B*, **2013**, 117, 8061-74	3.4	2
23	Phase space geometry of isolated to condensed chemical reactions. *Journal of Chemical Physics*, **2021**, 155, 210901	3.9	2
22	Understandings of chemical reaction dynamics in terms of dynamical systems theory **2015**,		1
21	A new method to improve validity range of Lie canonical perturbation theory: with a central focus on a concept of non-blow-up region. *Theoretical Chemistry Accounts*, **2014**, 133, 1	1.9	1
20	Handling Noisy Data from Single Molecule Experiments. *Seibutsu Butsuri*, **2014**, 54, 257-258	0	1
19	A bad arm existence checking problem: How to utilize asymmetric problem structure?. *Machine Learning*, **2020**, 109, 327-372	4	1
18	Transfer entropy dependent on distance among agents in quantifying leader-follower relationships. *Biophysics and Physicobiology*, **2021**, 18, 131-144	1.4	1
17	Modes of information flow in collective cohesion.. *Science Advances*, **2022**, 8, eabj1720	14.3	1
16	Classification of Hamiltonians in neighborhoods of band crossings in terms of the theory of singularities. *Journal of Mathematical Physics*, **2017**, 58, 073502	1.2	0
15	Biophysical research in Hokkaido University, Japan. *Biophysical Reviews*, **2020**, 12, 233-236	3.7	0
14	An algorithm for computing phase space structures in chemical reaction dynamics using Voronoi tessellation. *Physica D: Nonlinear Phenomena*, **2021**, 133047	3.3	0
13	1P323 Dynamical heterogeneity and dynamics of cage breaking and formation in colloidal fluids(30. Miscellaneous topics,Poster,The 52nd Annual Meeting of the Biophysical Society of Japan(BSJ2014)). *Seibutsu Butsuri*, **2014**, 54, S194	0	
12	2SDA-07 Toward quantifying higher-order interactions among elements from molecular imaging(2SDA Biological functions derived from cooperation of a small number of molecules,Symposium,The 51th Annual Meeting of the Biophysical Society of Japan). *Seibutsu*	0	
11	2B1700 Roles of water for conformation changes of a peptide : water assisting/hindering mechanism(Water & Hydration & Electrolyte,The 48th Annual Meeting of the Biophysical Society of Japan). *Seibutsu Butsuri*, **2011**, 51, S77-S78	0	
10	2F1512 Mathematical Principles of Hierarchical Structures in Multivariate Stochastic Process(Mathematical biology 2,The 48th Annual Meeting of the Biophysical Society of Japan). *Seibutsu Butsuri*, **2011**, 51, S83	0	
9	3P-082 Statistical analysis of the mechanosensitive ion channel's dynamics(Membrane proteins,The 47th Annual Meeting of the Biophysical Society of Japan). *Seibutsu Butsuri*, **2009**, 49, S165	0	
8	1S5-1 Multiscale Complex Network and Effective Free Energy Landscape Extracted from Single-Molecule Time Series(1S5 Linking single molecule spectroscopy and energy landscape perspectives,The 46th Annual Meeting of the Biophysical Society of Japan). *Seibutsu Butsuri*, **2008**,	0	

List of Publications

7	1S7-5 State Space Network extracted from Single Molecule Measurement : An illustration of Mechanosensitive ion channel MscL(1S7 Dynamic Picture of Ion Channel upon Gating,The 46th Annual Meeting of the Biophysical Society of Japan). *Seibutsu Butsuri*, **2008**, 48, S6	0
6	1P539 Applicability of local ergodic state analysis of single molecule time series(26. Single molecule biophysics,Poster Session,Abstract,Meeting Program of EABS & BSJ 2006). *Seibutsu Butsuri*, **2006**, 46, S281	0
5	Richard Stephen Berry (1931–2020) **2022**, 27, 11-17	
4	A Plenary Symposium in Memory of Prof. Fumio Oosawa "Our Future of Biophysics": A Scope of Next 50 Years" *Seibutsu Butsuri*, **2020**, 60, 122-122	0
3	The Personality of Small Numbers: Do Molecules Have Personality? **2018**, 31-37	
2	2SAP-01 Molecular Individuality and Minority in Biology(Scenario of functions from minority and number fluctuations,Symposium,The 52th Annual Meeting of the Biophysical Society of Japan(BSJ2014)). *Seibutsu Butsuri*, **2014**, 54, S130	0
1	Classification Bandits: Classification Using Expected Rewards as Imperfect Discriminators. *Lecture Notes in Computer Science*, **2021**, 57-69	0.9