

Satoshi Sawai

List of Publications by Year in descending order

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Version: 2024-02-01

48
papers

1,294
citations

516561

16
h-index

377752

34
g-index

54
all docs

54
docs citations

54
times ranked

1404
citing authors

#	ARTICLE	IF	CITATIONS
1	The Onset of Collective Behavior in Social Amoebae. <i>Science</i> , 2010, 328, 1021-1025.	6.0	283
2	An autoregulatory circuit for long-range self-organization in <i>Dictyostelium</i> cell populations. <i>Nature</i> , 2005, 433, 323-326.	13.7	152
3	Phase geometries of two-dimensional excitable waves govern self-organized morphodynamics of amoeboid cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 5016-5021.	3.3	128
4	Population Fitness and the Regulation of <i>Escherichia coli</i> Genes by Bacterial Viruses. <i>PLoS Biology</i> , 2005, 3, e229.	2.6	90
5	Rectified directional sensing in long-range cell migration. <i>Nature Communications</i> , 2014, 5, 5367.	5.8	89
6	Phosphorylated Rho-GDP directly activates mTORC2 kinase towards AKT through dimerization with Ras-GTP to regulate cell migration. <i>Nature Cell Biology</i> , 2019, 21, 867-878.	4.6	58
7	Tissue self-organization based on collective cell migration by contact activation of locomotion and chemotaxis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 4291-4296.	3.3	48
8	High-throughput analysis of spatio-temporal dynamics in <i>Dictyostelium</i> . <i>Genome Biology</i> , 2007, 8, R144.	13.9	45
9	Fold-change detection and scale invariance of cell-cell signaling in social amoeba. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E4149-E4157.	3.3	36
10	Phosphorylation of chemoattractant receptors regulates chemotaxis, actin re-organization, and signal-relay. <i>Journal of Cell Science</i> , 2013, 126, 4614-26.	1.2	31
11	Spontaneous Symmetry Breaking Turing-Type Pattern Formation in a Confined <i>Dictyostelium</i> Cell Mass. <i>Physical Review Letters</i> , 2000, 85, 2212-2215.	2.9	30
12	Optogenetic relaxation of actomyosin contractility uncovers mechanistic roles of cortical tension during cytokinesis. <i>Nature Communications</i> , 2021, 12, 7145.	5.8	30
13	The microfluidic lighthouse: an omnidirectional gradient generator. <i>Lab on A Chip</i> , 2016, 16, 4382-4394.	3.1	29
14	A Design Principle of Group-level Decision Making in Cell Populations. <i>PLoS Computational Biology</i> , 2013, 9, e1003110.	1.5	21
15	Collective oscillations in developing cells: Insights from simple systems. <i>Development Growth and Differentiation</i> , 2011, 53, 503-517.	0.6	20
16	Robustness of Self-Organizing Chemoattractant Field Arising from Precise Pulse Induction of Its Breakdown Enzyme: A Single-Cell Level Analysis of PDE Expression in <i>Dictyostelium</i> . <i>Biophysical Journal</i> , 2013, 104, 1191-1202.	0.2	19
17	The Green Tea Catechin Epigallocatechin Gallate (EGCG) Blocks Cell Motility, Chemotaxis and Development in <i>Dictyostelium discoideum</i> . <i>PLoS ONE</i> , 2013, 8, e59275.	1.1	17
18	Three-dimensional morphodynamic simulations of macropinocytic cups. <i>IScience</i> , 2021, 24, 103087.	1.9	17

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19	Self-organization of chemoattractant waves in <i>Dictyostelium</i> depends on F-actin and cell-substrate adhesion. <i>Journal of the Royal Society Interface</i> , 2016, 13, 20160233.	1.5	16
20	SunB, a novel Sad1 and UNC-64 domain-containing protein required for development of <i>Dictyostelium discoideum</i> . <i>Development Growth and Differentiation</i> , 2010, 52, 577-590.	0.6	15
21	Comparative mapping of crawling-cell morphodynamics in deep learning-based feature space. <i>PLoS Computational Biology</i> , 2021, 17, e1009237.	1.5	15
22	Two-Round Ca^{2+} transient in papillae by mechanical stimulation induces metamorphosis in the ascidian <i>Ciona intestinalis</i> type A. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2021, 288, 20203207.	1.2	14
23	The histidine kinase homologue DhkK/Sombrero controls morphogenesis in <i>Dictyostelium</i> . <i>Developmental Biology</i> , 2006, 292, 358-370.	0.9	13
24	Cell Movements and Mechanical Force Distribution During the Migration of <i>Dictyostelium</i> Slugs. <i>Journal of Biological Physics</i> , 2004, 30, 345-364.	0.7	11
25	Microtopographical guidance of macropinocytic signaling patches. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	10
26	Coupled Oscillators with Chemotaxis. <i>Journal of the Physical Society of Japan</i> , 1998, 67, 2557-2560.	0.7	9
27	RNA decay systems enhance reciprocal switching of sense and antisense transcripts in response to glucose starvation. <i>Genes To Cells</i> , 2016, 21, 1276-1289.	0.5	8
28	Dissecting Spatial and Temporal Sensing in <i>Dictyostelium</i> Chemotaxis Using a Wave Gradient Generator. <i>Methods in Molecular Biology</i> , 2016, 1407, 107-122.	0.4	6
29	Phosphatidic acid-dependent localization and basal de-phosphorylation of RA-GEFs regulate lymphocyte trafficking. <i>BMC Biology</i> , 2020, 18, 75.	1.7	6
30	Rapid patterning in 2-D cultures of <i>Dictyostelium</i> cells and its relationship to zonal differentiation. <i>Development Growth and Differentiation</i> , 2000, 42, 551-560.	0.6	5
31	Rapid patterning and zonal differentiation in a two-dimensional <i>Dictyostelium</i> cell mass: the role of pH and ammonia. <i>Journal of Experimental Biology</i> , 2002, 205, 2583-2590.	0.8	5
32	Rapid patterning and zonal differentiation in a two-dimensional <i>Dictyostelium</i> cell mass: the role of pH and ammonia. <i>Journal of Experimental Biology</i> , 2002, 205, 2583-90.	0.8	5
33	Regulation of G protein-coupled cAMP receptor activation by a hydrophobic residue in transmembrane helix 3. <i>Molecular Microbiology</i> , 2007, 65, 508-520.	1.2	4
34	A novel, lineage-primed prestalk cell subtype involved in the morphogenesis of <i>D. discoideum</i> . <i>Developmental Biology</i> , 2016, 416, 286-299.	0.9	2
35	Rap1 Is Essential for B-Cell Locomotion, Germinal Center Formation and Normal B-1a Cell Population. <i>Frontiers in Immunology</i> , 2021, 12, 624419.	2.2	2
36	2P-319 Intra- and inter-cellular feedback signaling drives collective dynamics of cell population(The) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50,0		

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37	2P231 Mutational analyses of PIP3/F-actin wave nucleation and propagation(The 48th Annual Meeting) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 707	0.0	0
38	2SA1350 Roles of de-adaptation during the collective cAMP oscillations in Dictyostelium(2SA) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 707 Seibutsu Butsuri, 2010, 50, S7.	0.0	0
39	3P193 Phase singularity analysis of self-organizing phosphatidylinositol waves in Dictyostelium discoideum cells(Cell biology,The 48th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2010, 50, S179.	0.0	0
40	Comments to "Biophysics and "What is Life?" Seibutsu Butsuri, 2010, 50, 266-267.	0.0	0
41	3K1012 Phase singularity dynamics in self-organizing phosphatidylinositol waves(Cell biology 3,The) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 707	0.0	0
42	3C1322 Relation between collective cell migration and self-organization of chemoattractant waves(3C) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 707 S114.	0.0	0
43	2PT239 Phase response of the collective cAMP oscillations in Dictyostelium discoideum and its implication to the adaptive properties(The 50th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2012, 52, S145.	0.0	0
44	1P189 Roles of actin polymerization in the collective cAMP oscillations(12.Cell biology,Poster,The 51st) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 707	0.0	0
45	1P273 A Design Principle of Group-level Decision Making in Cell Populations(24. Mathematical) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 707	0.0	0
46	3P229 Directional-sensing and rectified cell motion towards temporally changing gradient(14.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 707	0.0	0
47	Cellular Sensing of Time and Space: Chemotactic Wave Paradox and Rectification of the Leading Edge Response. Seibutsu Butsuri, 2016, 56, 098-101.	0.0	0
48	2PS045 Live-cell imaging and analysis of cAMP-induced cAMP response in Dictyostelium using microfluidics chambers(The 50th Annual Meeting of the Biophysical Society of Japan). Seibutsu Butsuri, 2012, 52, S118.	0.0	0