Krasimira T Tsaneva-Atanasova

List of Publications by Year
in descending order

141	4,624	126858	133188
papers	citations	33 h-index	59 g-index

162	162	162	6478
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Risk of mortality in patients infected with SARS-CoV-2 variant of concern 202012/1: matched cohort study. BMJ, The, 2021, 372, n579.	3.0	648
2	Artificial intelligence, bias and clinical safety. BMJ Quality and Safety, 2019, 28, 231-237.	1.8	469
3	A method for determining the dependence of calcium oscillations on inositol trisphosphate oscillations. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 1675-1680.	3.3	154
4	Control of calcium oscillations by membrane fluxes. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 1392-1396.	3.3	125
5	BSim: An Agent-Based Tool for Modeling Bacterial Populations in Systems and Synthetic Biology. PLoS ONE, 2012, 7, e42790.	1.1	116
6	Integrative microbiomics in bronchiectasis exacerbations. Nature Medicine, 2021, 27, 688-699.	15.2	105
7	Glucose Modulates [Ca2+]i Oscillations in Pancreatic Islets via Ionic and Glycolytic Mechanisms. Biophysical Journal, 2006, 91, 2082-2096.	0.2	102
8	A phenomenological model of seizure initiation suggests network structure may explain seizure frequency in idiopathic generalised epilepsy. Journal of Mathematical Neuroscience, 2012, 2, 1.	2.4	101
9	Mechanism of Spontaneous and Receptor-Controlled Electrical Activity in Pituitary Somatotrophs: Experiments and Theory. Journal of Neurophysiology, 2007, 98, 131-144.	0.9	96
10	A Model of Calcium Waves in Pancreatic and Parotid Acinar Cells. Biophysical Journal, 2003, 85, 1392-1405.	0.2	95
11	Diffusion of Calcium and Metabolites in Pancreatic Islets: Killing Oscillations with a Pitchfork. Biophysical Journal, 2006, 90, 3434-3446.	0.2	85
12	Full system bifurcation analysis of endocrine bursting models. Journal of Theoretical Biology, 2010, 264, 1133-1146.	0.8	84
13	Altered Intrinsic Pyramidal Neuron Properties and Pathway-Specific Synaptic Dysfunction Underlie Aberrant Hippocampal Network Function in a Mouse Model of Tauopathy. Journal of Neuroscience, 2016, 36, 350-363.	1.7	82
14	25th Annual Computational Neuroscience Meeting: CNS-2016. BMC Neuroscience, 2016, 17, 54.	0.8	81
15	Dynamic similarity promotes interpersonal coordination in joint action. Journal of the Royal Society Interface, 2016, 13, 20151093.	1.5	76
16	Mathematical Modelling of Endocrine Systems. Trends in Endocrinology and Metabolism, 2019, 30, 244-257.	3.1	66
17	Encoding and Decoding Mechanisms of Pulsatile Hormone Secretion. Journal of Neuroendocrinology, 2010, 22, 1226-1238.	1.2	61
18	Individual reactions to stress predict performance during a critical aviation incident. Anxiety, Stress and Coping, 2015, 28, 467-477.	1.7	58

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19	Metagenomics Reveals a Core Macrolide Resistome Related to Microbiota in Chronic Respiratory Disease. American Journal of Respiratory and Critical Care Medicine, 2020, 202, 433-447.	2.5	58
20	Single-cell microfluidics facilitates the rapid quantification of antibiotic accumulation in Gram-negative bacteria. Lab on A Chip, 2020, 20, 2765-2775.	3.1	57
21	FKBP12 Activates the Cardiac Ryanodine Receptor Ca2+-Release Channel and Is Antagonised by FKBP12.6. PLoS ONE, 2012, 7, e31956.	1.1	56
22	Quantifying Neurite Growth Mediated by Interactions among Secretory Vesicles, Microtubules, and Actin Networks. Biophysical Journal, 2009, 96, 840-857.	0.2	55
23	Relocalization of STIM1 for Activation of Store-operated Ca2+ Entry Is Determined by the Depletion of Subplasma Membrane Endoplasmic Reticulum Ca2+ Store. Journal of Biological Chemistry, 2007, 282, 12176-12185.	1.6	53
24	Kisspeptin receptor agonist has therapeutic potential for female reproductive disorders. Journal of Clinical Investigation, 2020, 130, 6739-6753.	3.9	52
25	Pulsatile and Sustained Gonadotropin-releasing Hormone (GnRH) Receptor Signaling. Journal of Biological Chemistry, 2009, 284, 35746-35757.	1.6	51
26	The Origin of GnRH Pulse Generation: An Integrative Mathematical-Experimental Approach. Journal of Neuroscience, 2019, 39, 9738-9747.	1.7	49
27	Measuring luteinising hormone pulsatility with a robotic aptamer-enabled electrochemical reader. Nature Communications, 2019, 10, 852.	5.8	49
28	Judgments relative to patterns: How temporal sequence patterns affect judgments and memory.. Journal of Experimental Psychology: Human Perception and Performance, 2011, 37, 1874-1886.	0.7	46
29	Altered intrinsic excitability of hippocampal CA1 pyramidal neurons in aged PDAPP mice. Frontiers in Cellular Neuroscience, 2015, 9, 372.	1.8	46
30	Oscillatory stimuli differentiate adapting circuit topologies. Nature Methods, 2017, 14, 1010-1016.	9.0	44
31	Pulsatile and Sustained Gonadotropin-releasing Hormone (GnRH) Receptor Signaling. Journal of Biological Chemistry, 2010, 285, 24360-24371.	1.6	41
32	Buffering Capacity Explains Signal Variation in Symbiotic Calcium Oscillations Â Â Â. Plant Physiology, 2012, 160, 2300-2310.	2.3	39
33	Information Transfer in Gonadotropin-releasing Hormone (GnRH) Signaling. Journal of Biological Chemistry, 2016, 291, 2246-2259.	1.6	38
34	Cross-currents between biology and mathematics: The codimension of pseudo-plateau bursting. Discrete and Continuous Dynamical Systems, 2012, 32, 2853-2877.	0.5	37
35	Control of Ca2+ Influx and Calmodulin Activation by SK-Channels in Dendritic Spines. PLoS Computational Biology, 2016, 12, e1004949.	1.5	37
36	From Plateau to Pseudo-Plateau Bursting: MakingÂtheÂTransition. Bulletin of Mathematical Biology, 2011, 73, 1292-1311.	0.9	35

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37	A unified model of CA1/3 pyramidal cells: An investigation into excitability. Progress in Biophysics and Molecular Biology, 2011, 105, 34-48.	1.4	34
38	Inhibition of Post-Synaptic Kv7/KCNQ/M Channels Facilitates Long-Term Potentiation in the Hippocampus. PLoS ONE, 2012, 7, e30402.	1.1	32
39	Unravelling socio-motor biomarkers in schizophrenia. NPJ Schizophrenia, 2017, 3, 8.	2.0	32
40	Fast bacterial growth reduces antibiotic accumulation and efficacy. ELife, 0, 11, .	2.8	32
41	Acetylcholine modulates gamma frequency oscillations in the hippocampus by activation of muscarinic M1 receptors. European Journal of Neuroscience, 2017, 45, 1570-1585.	1.2	31
42	Mathematical modeling of gonadotropin-releasing hormone signaling. Molecular and Cellular Endocrinology, 2017, 449, 42-55.	1.6	31
43	Decoding GnRH neurohormone pulse frequency by convergent signalling modules. Journal of the Royal Society Interface, 2012, 9, 170-182.	1.5	29
44	Dynamical systems analysis of spike-adding mechanisms in transient bursts. Journal of Mathematical Neuroscience, 2012, 2, 7.	2.4	28
45	Dual specificity phosphatases 10 and 16 are positive regulators of EGF-stimulated ERK activity: Indirect regulation of ERK signals by JNK/p38 selective MAPK phosphatases. Cellular Signalling, 2012, 24, 1002-1011.	1.7	28
46	A Ca2+-based computational model for NDMA receptor-dependent synaptic plasticity at individual post-synaptic spines in the hippocampus. Frontiers in Synaptic Neuroscience, 2010, 2, 31.	1.3	25
47	Pseudo-plateau bursting and mixed-mode oscillations in a model of developing inner hair cells. Communications in Nonlinear Science and Numerical Simulation, 2020, 80, 104979.	1.7	25
48	Design of a Virtual Player for Joint Improvisation with Humans in the Mirror Game. PLoS ONE, 2016, 11, e0154361.	1.1	23
49	TRIC-B channels display labile gating: evidence from the TRIC-A knockout mouse model. Pflugers Archiv European Journal of Physiology, 2013, 465, 1135-1148.	1.3	22
50	Gaze training supports self-organization of movement coordination in children with developmental coordination disorder. Scientific Reports, 2019, 9, 1712.	1.6	22
51	Dynamic Hormone Control of Stress and Fertility. Frontiers in Physiology, 2020, 11, 598845.	1.3	22
52	The role of large-conductance Calcium-activated (BK) channels in shaping bursting oscillations of a somatotroph cell model. Physica D: Nonlinear Phenomena, 2010, 239, 485-493.	1.3	21
53	Modelling emergence of oscillations in communicating bacteria: a structured approach from one to many cells. Journal of the Royal Society Interface, 2013, 10, 20120612.	1.5	21
54	Age-dependent changes in clock neuron structural plasticity and excitability are associated with a decrease in circadian output behavior and sleep. Neurobiology of Aging, 2019, 77, 158-168.	1.5	19

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55	Similarity network fusion for the integration of multi-omics and microbiomes in respiratory disease. European Respiratory Journal, 2021, 58, 2101016.	3.1	19
56	Signaling to Extracellular Signal-regulated Kinase from ErbB1 Kinase and Protein Kinase C. Journal of Biological Chemistry, 2013, 288, 21001-21014.	1.6	18
57	Beyond in-phase and anti-phase coordination in a model of joint action. Biological Cybernetics, 2016, 110, 201-216.	0.6	18
58	Design and Validation of a Virtual Player for Studying Interpersonal Coordination in the Mirror Game. IEEE Transactions on Cybernetics, 2018, 48, 1018-1029.	6.2	18
59	Nonlinear models of development, amplification and compression in the mammalian cochlea. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2011, 369, 4183-4204.	1.6	17
60	A novel cognitive architecture for a human-like virtual player in the mirror game. , 2014, , .		17
61	Calcium-Induced Calcium Release during Action Potential Firing in Developing Inner Hair Cells. Biophysical Journal, 2015, 108, 1003-1012.	0.2	17
62	Influence of facial feedback during a cooperative human-robot task in schizophrenia. Scientific Reports, 2017, 7, 15023.	1.6	17
63	Modulation of pulsatile GnRH dynamics across the ovarian cycle via changes in the network excitability and basal activity of the arcuate kisspeptin network. ELife, 2021, 10, .	2.8	17
64	Spatiotemporal Dynamics of Insulitis in Human Type 1 Diabetes. Frontiers in Physiology, 2016, 7, 633.	1.3	16
65	Pulsatile Hormonal Signaling to Extracellular Signal-regulated Kinase. Journal of Biological Chemistry, 2014, 289, 7873-7883.	1.6	15
66	Information Transfer via Gonadotropin-Releasing Hormone Receptors to ERK and NFAT: Sensing GnRH and Sensing Dynamics. Journal of the Endocrine Society, 2017, 1, 260-277.	0.1	15
67	Shaw and Shal voltageâ€gated potassium channels mediate circadian changes in Drosophila clock neuron excitability. Journal of Physiology, 2019, 597, 5707-5722.	1.3	15
68	â€œHigh-Riskâ€•Clinical and Inflammatory Clusters in COPD of Chinese Descent. Chest, 2020, 158, 145-156.	0.4	14
69	Modeling Mechanisms of Cell Secretion. Acta Biotheoretica, 2010, 58, 315-327.	0.7	13
70	RNA2DNAlign: nucleotide resolution allele asymmetries through quantitative assessment of RNA and DNA paired sequencing data. Nucleic Acids Research, 2016, 44, e161-e161.	6.5	13
71	Fast and slow domino regimes in transient network dynamics. Physical Review E, 2017, 96, 052309.	0.8	13
72	ReQTL: identifying correlations between expressed SNVs and gene expression using RNA-sequencing data. Bioinformatics, 2020, 36, 1351-1359.	1.8	13

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73	Mathematical-based microbiome analytics for clinical translation. Computational and Structural Biotechnology Journal, 2021, 19, 6272-6281.	1.9	13
74	Meta-analysis of the severe acute respiratory syndrome coronavirus 2 serial intervals and the impact of parameter uncertainty on the coronavirus disease 2019 reproduction number. Statistical Methods in Medical Research, 2022, 31, 1686-1703.	0.7	13
75	Adaptive tracking control of a virtual player in the mirror game. , 2014, , .		12
76	A model predictive approach to control the motion of a virtual player in the mirror game. , 2015, , .		12
77	Gonadotropin-releasing hormone signaling: An information theoretic approach. Molecular and Cellular Endocrinology, 2018, 463, 106-115.	1.6	12
78	Geometric analysis of transient bursts. Chaos, 2013, 23, 046107.	1.0	11
79	Sequential Noise-Induced Escapes for Oscillatory Network Dynamics. SIAM Journal on Applied Dynamical Systems, 2018, 17, 500-525.	0.7	11
80	scReQTL: an approach to correlate SNVs to gene expression from individual scRNA-seq datasets. BMC Genomics, 2021, 22, 40.	1.2	11
81	Nutrient and salt depletion synergistically boosts glucose metabolism in individual Escherichia coli cells. Communications Biology, 2022, 5, 385.	2.0	11
82	Wavelet Transform-Based De-Noising for Two-Photon Imaging of Synaptic Ca 2+ Transients. Biophysical Journal, 2013, 104, 1006-1017.	0.2	10
83	Robust spike timing in an excitable cell with delayed feedback. Journal of the Royal Society Interface, 2021, 18, 20210029.	1.5	10
84	Estimates of regional infectivity of COVID-19 in the United Kingdom following imposition of social distancing measures. Philosophical Transactions of the Royal Society B: Biological Sciences, 2021, 376, 20200280.	1.8	10
85	Decoding neurohormone pulse frequency by convergent signalling modules. Biochemical Society Transactions, 2012, 40, 273-278.	1.6	9
86	Adaptive Anchoring Model: How Static and Dynamic Presentations of Time Series Influence Judgments and Predictions. Cognitive Science, 2018, 42, 77-102.	0.8	9
87	Neurologically Motivated Coupling Functions in Models of Motor Coordination. SIAM Journal on Applied Dynamical Systems, 2020, 19, 208-232.	0.7	9
88	Visuo-motor attention during object interaction in children with developmental coordination disorder. Cortex, 2021, 138, 318-328.	1.1	9
89	Calcium Oscillations and Membrane Transport: The Importance of Two Time Scales. Multiscale Modeling and Simulation, 2005, 3, 245-264.	0.6	8
90	Accounting for Near-Normal Glucose Sensitivity in Kir6.2[AAA] Transgenic Mice. Biophysical Journal, 2009, 97, 2409-2418.	0.2	8

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91	Kinematic characteristics of motion in the mirror game. , 2014, , .		8
92	Subconductance Gating and Voltage Sensitivity of Sarcoplasmic Reticulum K+ Channels: A Modeling Approach. Biophysical Journal, 2015, 109, 265-276.	0.2	8
93	Bifurcation analysis of a two-compartment hippocampal pyramidal cell model. Journal of Computational Neuroscience, 2016, 41, 91-106.	0.6	8
94	Decoding identity from motion: how motor similarities colour our perception of self and others. Psychological Research, 2021, 85, 509-519.	1.0	8
95	26th Annual Computational Neuroscience Meeting (CNS*2017): Part 3. BMC Neuroscience, 2017, 18, .	0.8	7
96	Classification framework for partially observed dynamical systems. Physical Review E, 2017, 95, 043303.	0.8	7
97	Relaxation oscillations and canards in the Jirsaâ€“Kelso excitator model: global flow perspective. European Physical Journal: Special Topics, 2018, 227, 591-601.	1.2	7
98	A Drosophila Model of Essential Tremor. Scientific Reports, 2018, 8, 7664.	1.6	7
99	Domino-like transient dynamics at seizure onset in epilepsy. PLoS Computational Biology, 2020, 16, e1008206.	1.5	7
100	Entrainment and Control of Bacterial Populations: An in Silico Study over a Spatially Extended Agent Based Model. ACS Synthetic Biology, 2016, 5, 639-653.	1.9	6
101	Effects of time-delay in a model of intra- and inter-personal motor coordination. European Physical Journal: Special Topics, 2016, 225, 2591-2600.	1.2	6
102	Determining the relationship between hot flushes and LH pulses in menopausal women using mathematical modelling. Journal of Clinical Endocrinology and Metabolism, 2019, 104, 3628-3636.	1.8	6
103	Estimating disease prevalence in large datasets using genetic risk scores. Nature Communications, 2021, 12, 6441.	5.8	6
104	Data-Driven Prediction of Freezing of Gait Events From Stepping Data. Frontiers in Medical Technology, 2020, 2, 581264.	1.3	6
105	Microbiomics-focused Data Integration: A Fresh Solve for the Rubikâ€™s Cube of Endophenotyping?. American Journal of Respiratory and Critical Care Medicine, 2022, 206, 365-368.	2.5	6
106	Sequential escapes: onset of slow domino regime via a saddle connection. European Physical Journal: Special Topics, 2018, 227, 1091-1100.	1.2	5
107	Cardiopulmonary responses to maximal aerobic exercise in patients with cystic fibrosis. PLoS ONE, 2019, 14, e0211219.	1.1	5
108	Ankle Push-Off Based Mathematical Model for Freezing of Gait in Parkinson's Disease. Frontiers in Bioengineering and Biotechnology, 2020, 8, 552635.	2.0	5

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109	Continuation-Based Numerical Detection of After-Depolarization and Spike-Adding Thresholds. Neural Computation, 2013, 25, 877-900.	1.3	4
110	Exploring Dynamics and Noise in Gonadotropin-Releasing Hormone (GnRH) Signaling. Methods in Molecular Biology, 2018, 1819, 405-429.	0.4	4
111	Modeling judgment of sequentially presented categories using weighting and sampling without replacement. Behavior Research Methods, 2012, 44, 1129-1134.	2.3	3
112	An information theoretic approach to insulin sensing by human kidney podocytes. Molecular and Cellular Endocrinology, 2020, 518, 110976.	1.6	3
113	Separable actions of acetylcholine and noradrenaline on neuronal ensemble formation in hippocampal CA3 circuits. PLoS Computational Biology, 2021, 17, e1009435.	1.5	3
114	Mathematical models in GnRH research. Journal of Neuroendocrinology, 2022, 34, e13085.	1.2	3
115	Control of clustered action potential firing in a mathematical model of entorhinal cortex stellate cells. Journal of Theoretical Biology, 2018, 449, 23-34.	0.8	2
116	Editorial: Mathematics for Healthcare as Part of Computational Medicine. Frontiers in Physiology, 2018, 9, 985.	1.3	2
117	GeTallele: A Method for Analysis of DNA and RNA Allele Frequency Distributions. Frontiers in Bioengineering and Biotechnology, 2020, 8, 1021.	2.0	2
118	Factors influencing digital review of pathology test results in an inpatient setting: a cross-sectional study. JAMIA Open, 2020, 3, 290-298.	1.0	2
119	Sensitivity analysis to explain the excitability in a pyramidal neuron with application to Alzheimerâ€™s disease. BMC Neuroscience, 2011, 12, .	0.8	1
120	Modulation of hippocampal gamma oscillations by acetylcholine: insights from mathematical and in vitro optogenetic models. BMC Neuroscience, 2015, 16, .	0.8	1
121	Sequential Escapes and Synchrony Breaking for Networks of Bistable Oscillatory Nodes. SIAM Journal on Applied Dynamical Systems, 2020, 19, 2829-2846.	0.7	1
122	Reduced Models of Cardiomyocytes Excitability: Comparing Karma and FitzHughâ€“Nagumo. Bulletin of Mathematical Biology, 2021, 83, 88.	0.9	1
123	Dynamical Systems Theory, Bifurcation Analysis. , 2013, , 632-637.		1
124	Spike-Timing Dependent Plasticity (STDP), Biophysical Models. , 2015, , 2803-2807.		1
125	Co-occurrence analysis relates a macrolide resistome to the pulmonary microbiome in chronic respiratory disease. , 2020, , .		1
126	Bacterial Secretion and the Role of Diffusive and Subdiffusive First Passage Processes. PLoS ONE, 2012, 7, e41421.	1.1	1

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127	â€œIntegrative microbiomicsâ€•reveals a disrupted interactome in bronchiectasis exacerbations. , 2020, , .		1
128	Voltage-Dependent Stochastic Gating Models of TRIC-B Channels. Biophysical Journal, 2013, 104, 104a.	0.2	0
129	Investigating the effects of beta-amyloid on hippocampal signalling in Alzheimer's disease. BMC Neuroscience, 2015, 16, .	0.8	0
130	GnRH Action. Endocrinology, 2016, , 1-36.	0.1	0
131	GnRH Action. Endocrinology, 2017, , 35-70.	0.1	0
132	Classification of sparsely and irregularly sampled time series: A learning in model space approach. , 2017, , .		0
133	Authors response to communication about mathematical modeling of gonadotropin-releasing hormone signaling. Molecular and Cellular Endocrinology, 2018, 470, 36-37.	1.6	0
134	"Integrative Microbiomics" Through Similarity Network Fusion Identifies Clinically Relevant Bronchiectasis Phenotypes. , 2019, , .		0
135	Gonadotropin-Releasing Hormone Receptors and Signaling. , 2021, , 149-181.		0
136	Spike Timing-Dependent Plasticity (STDP), Biophysical Models. , 2014, , 1-5.		0
137	Systems approaches to understanding GnRH signalling. Endocrine Abstracts, 0, , .	0.0	0
138	Measuring of information transfer via gonadotropin-releasing hormone receptors (GnRHR) shows a remarkable loss of information through signalling. Endocrine Abstracts, 0, , .	0.0	0
139	SAT-LB040 Measuring LH Pulsatility in Patients with Reproductive Disorders Using a Novel Robotic Aptamer-Enabled Electrochemical Reader (RAPTER). Journal of the Endocrine Society, 2019, 3, .	0.1	0
140	SOMiMS - Topographic Mapping in the Model Space. Lecture Notes in Computer Science, 2021, , 502-510.	1.0	0
141	Spike-Timing Dependent Plasticity (STDP), Biophysical Models. , 2022, , 3258-3262.		0