Krasimira T Tsaneva-Atanasova

List of Publications by Year
in descending order

141 papers	4,624 citations	126858 33 h-index	133188 59 g-index
162 all docs	162 docs citations	162 times ranked	6478 citing authors

#	Article	IF	Citations
1	Mathematical models in GnRH research. Journal of Neuroendocrinology, 2022, 34, e13085.	1.2	3
2	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
3	Nutrient and salt depletion synergistically boosts glucose metabolism in individual Escherichia coli cells. Communications Biology, 2022, 5, 385.	2.0	11
4	Microbiomics-focused Data Integration: A Fresh Solve for the Rubik's Cube of Endophenotyping?. American Journal of Respiratory and Critical Care Medicine, 2022, 206, 365-368.	2.5	6
5	Spike-Timing Dependent Plasticity (STDP), Biophysical Models. , 2022, , 3258-3262.		0
6	Decoding identity from motion: how motor similarities colour our perception of self and others. Psychological Research, 2021, 85, 509-519.	1.0	8
7	Gonadotropin-Releasing Hormone Receptors and Signaling. , 2021, , 149-181.		0
8	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
9	Integrative microbiomics in bronchiectasis exacerbations. Nature Medicine, 2021, 27, 688-699.	15.2	105
10	Robust spike timing in an excitable cell with delayed feedback. Journal of the Royal Society Interface, 2021, 18, 20210029.	1.5	10
11	Visuo-motor attention during object interaction in children with developmental coordination disorder. Cortex, 2021, 138, 318-328.	1.1	9
12	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
13	Similarity network fusion for the integration of multi-omics and microbiomes in respiratory disease. European Respiratory Journal, 2021, 58, 2101016.	3.1	19
14	Reduced Models of Cardiomyocytes Excitability: Comparing Karma and FitzHugh–Nagumo. Bulletin of Mathematical Biology, 2021, 83, 88.	0.9	1
15	Separable actions of acetylcholine and noradrenaline on neuronal ensemble formation in hippocampal CA3 circuits. PLoS Computational Biology, 2021, 17, e1009435.	1.5	3
16	scReQTL: an approach to correlate SNVs to gene expression from individual scRNA-seq datasets. BMC Genomics, 2021, 22, 40.	1.2	11
17	Estimating disease prevalence in large datasets using genetic risk scores. Nature Communications, 2021, 12, 6441.	5.8	6
18	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

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19	Mathematical-based microbiome analytics for clinical translation. Computational and Structural Biotechnology Journal, 2021, 19, 6272-6281.	1.9	13
20	SOMiMS - Topographic Mapping in the Model Space. Lecture Notes in Computer Science, 2021, , 502-510.	1.0	0
21	ReQTL: identifying correlations between expressed SNVs and gene expression using RNA-sequencing data. Bioinformatics, 2020, 36, 1351-1359.	1.8	13
22	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
23	GeTallele: A Method for Analysis of DNA and RNA Allele Frequency Distributions. Frontiers in Bioengineering and Biotechnology, 2020, 8, 1021.	2.0	2
24	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
25	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
26	An information theoretic approach to insulin sensing by human kidney podocytes. Molecular and Cellular Endocrinology, 2020, 518, 110976.	1.6	3
27	Dynamic Hormone Control of Stress and Fertility. Frontiers in Physiology, 2020, 11, 598845.	1.3	22
28	Sequential Escapes and Synchrony Breaking for Networks of Bistable Oscillatory Nodes. SIAM Journal on Applied Dynamical Systems, 2020, 19, 2829-2846.	0.7	1
29	Neurologically Motivated Coupling Functions in Models of Motor Coordination. SIAM Journal on Applied Dynamical Systems, 2020, 19, 208-232.	0.7	9
30	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
31	â€œHigh-Riskâ€•Clinical and Inflammatory Clusters in COPD of Chinese Descent. Chest, 2020, 158, 145-156.	0.4	14
32	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
33	Kisspeptin receptor agonist has therapeutic potential for female reproductive disorders. Journal of Clinical Investigation, 2020, 130, 6739-6753.	3.9	52
34	Co-occurrence analysis relates a macrolide resistome to the pulmonary microbiome in chronic respiratory disease. , 2020, , .		1
35	Domino-like transient dynamics at seizure onset in epilepsy. PLoS Computational Biology, 2020, 16, e1008206.	1.5	7
36	Data-Driven Prediction of Freezing of Gait Events From Stepping Data. Frontiers in Medical Technology, 2020, 2, 581264.	1.3	6

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37	â€œIntegrative microbiomicsâ€•reveals a disrupted interactome in bronchiectasis exacerbations. , 2020, , .		1
38	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
39	"Integrative Microbiomics" Through Similarity Network Fusion Identifies Clinically Relevant Bronchiectasis Phenotypes. , 2019, , .		0
40	The Origin of GnRH Pulse Generation: An Integrative Mathematical-Experimental Approach. Journal of Neuroscience, 2019, 39, 9738-9747.	1.7	49
41	Shaw and Shal voltageâ€gated potassium channels mediate circadian changes in <i>Drosophila</i> clock neuron excitability. Journal of Physiology, 2019, 597, 5707-5722.	1.3	15
42	Mathematical Modelling of Endocrine Systems. Trends in Endocrinology and Metabolism, 2019, 30, 244-257.	3.1	66
43	Cardiopulmonary responses to maximal aerobic exercise in patients with cystic fibrosis. PLoS ONE, 2019, 14, e0211219.	1.1	5
44	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
45	Gaze training supports self-organization of movement coordination in children with developmental coordination disorder. Scientific Reports, 2019, 9, 1712.	1.6	22
46	Measuring luteinising hormone pulsatility with a robotic aptamer-enabled electrochemical reader. Nature Communications, 2019, 10, 852.	5.8	49
47	Artificial intelligence, bias and clinical safety. BMJ Quality and Safety, 2019, 28, 231-237.	1.8	469
48	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
49	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
50	Sequential Noise-Induced Escapes for Oscillatory Network Dynamics. SIAM Journal on Applied Dynamical Systems, 2018, 17, 500-525.	0.7	11
51	Adaptive Anchoring Model: How Static and Dynamic Presentations of Time Series Influence Judgments and Predictions. Cognitive Science, 2018, 42, 77-102.	0.8	9
52	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
53	Gonadotropin-releasing hormone signaling: An information theoretic approach. Molecular and Cellular Endocrinology, 2018, 463, 106-115.	1.6	12
54	Authors response to communication about mathematical modeling of gonadotropin-releasing hormone signaling. Molecular and Cellular Endocrinology, 2018, 470, 36-37.	1.6	0

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55	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
56	Exploring Dynamics and Noise in Gonadotropin-Releasing Hormone (GnRH) Signaling. Methods in Molecular Biology, 2018, 1819, 405-429.	0.4	4
57	Sequential escapes: onset of slow domino regime via a saddle connection. European Physical Journal: Special Topics, 2018, 227, 1091-1100.	1.2	5
58	Editorial: Mathematics for Healthcare as Part of Computational Medicine. Frontiers in Physiology, 2018, 9, 985.	1.3	2
59	A Drosophila Model of Essential Tremor. Scientific Reports, 2018, 8, 7664.	1.6	7
60	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
61	Unravelling socio-motor biomarkers in schizophrenia. NPJ Schizophrenia, 2017, 3, 8.	2.0	32
62	26th Annual Computational Neuroscience Meeting (CNS*2017): Part 3. BMC Neuroscience, 2017, 18, .	0.8	7
63	GnRH Action. Endocrinology, 2017, , 35-70.	0.1	0
64	Classification framework for partially observed dynamical systems. Physical Review E, 2017, 95, 043303.	0.8	7
65	Influence of facial feedback during a cooperative human-robot task in schizophrenia. Scientific Reports, 2017, 7, 15023.	1.6	17
66	Fast and slow domino regimes in transient network dynamics. Physical Review E, 2017, 96, 052309.	0.8	13
67	Classification of sparsely and irregularly sampled time series: A learning in model space approach. , 2017, , .		0
68	Mathematical modeling of gonadotropin-releasing hormone signaling. Molecular and Cellular Endocrinology, 2017, 449, 42-55.	1.6	31
69	Oscillatory stimuli differentiate adapting circuit topologies. Nature Methods, 2017, 14, 1010-1016.	9.0	44
70	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
71	Control of Ca2+ Influx and Calmodulin Activation by SK-Channels in Dendritic Spines. PLoS Computational Biology, 2016, 12, e1004949.	1.5	37
72	Spatiotemporal Dynamics of Insulitis in Human Type 1 Diabetes. Frontiers in Physiology, 2016, 7, 633.	1.3	16

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73	Bifurcation analysis of a two-compartment hippocampal pyramidal cell model. Journal of Computational Neuroscience, 2016, 41, 91-106.	0.6	8
74	GnRH Action. Endocrinology, 2016, , 1-36.	0.1	0
75	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
76	25th Annual Computational Neuroscience Meeting: CNS-2016. BMC Neuroscience, 2016, 17, 54.	0.8	81
77	Beyond in-phase and anti-phase coordination in a model of joint action. Biological Cybernetics, 2016, 110, 201-216.	0.6	18
78	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
79	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
80	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
81	Information Transfer in Gonadotropin-releasing Hormone (GnRH) Signaling. Journal of Biological Chemistry, 2016, 291, 2246-2259.	1.6	38
82	Dynamic similarity promotes interpersonal coordination in joint action. Journal of the Royal Society Interface, 2016, 13, 20151093.	1.5	76
83	Design of a Virtual Player for Joint Improvisation with Humans in the Mirror Game. PLoS ONE, 2016, 11, e0154361.	1.1	23
84	Modulation of hippocampal gamma oscillations by acetylcholine: insights from mathematical and in vitro optogenetic models. BMC Neuroscience, 2015, 16, .	0.8	1
85	Altered intrinsic excitability of hippocampal CA1 pyramidal neurons in aged PDAPP mice. Frontiers in Cellular Neuroscience, 2015, 9, 372.	1.8	46
86	Investigating the effects of beta-amyloid on hippocampal signalling in Alzheimer's disease. BMC Neuroscience, 2015, 16, .	0.8	0
87	Calcium-Induced Calcium Release during Action Potential Firing in Developing Inner Hair Cells. Biophysical Journal, 2015, 108, 1003-1012.	0.2	17
88	A model predictive approach to control the motion of a virtual player in the mirror game. , 2015, , .		12
89	Subconductance Gating and Voltage Sensitivity of Sarcoplasmic Reticulum K+ Channels: A Modeling Approach. Biophysical Journal, 2015, 109, 265-276.	0.2	8
90	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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91	Spike-Timing Dependent Plasticity (STDP), Biophysical Models. , 2015, , 2803-2807.		1
92	Adaptive tracking control of a virtual player in the mirror game. , 2014, , .		12
93	Pulsatile Hormonal Signaling to Extracellular Signal-regulated Kinase. Journal of Biological Chemistry, 2014, 289, 7873-7883.	1.6	15
94	A novel cognitive architecture for a human-like virtual player in the mirror game. , 2014, , .		17
95	Kinematic characteristics of motion in the mirror game. , 2014, , .		8
96	Spike Timing-Dependent Plasticity (STDP), Biophysical Models. , 2014, , 1-5.		0
97	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
98	Voltage-Dependent Stochastic Gating Models of TRIC-B Channels. Biophysical Journal, 2013, 104, 104a.	0.2	0
99	Wavelet Transform-Based De-Noising for Two-Photon Imaging of Synaptic Ca 2+ Transients. Biophysical Journal, 2013, 104, 1006-1017.	0.2	10
100	Continuation-Based Numerical Detection of After-Depolarization and Spike-Adding Thresholds. Neural Computation, 2013, 25, 877-900.	1.3	4
101	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
102	Geometric analysis of transient bursts. Chaos, 2013, 23, 046107.	1.0	11
103	Signaling to Extracellular Signal-regulated Kinase from ErbB1 Kinase and Protein Kinase C. Journal of Biological Chemistry, 2013, 288, 21001-21014.	1.6	18
104	Dynamical Systems Theory, Bifurcation Analysis. , 2013, , 632-637.		1
105	Decoding GnRH neurohormone pulse frequency by convergent signalling modules. Journal of the Royal Society Interface, 2012, 9, 170-182.	1.5	29
106	Buffering Capacity Explains Signal Variation in Symbiotic Calcium Oscillations Â Â Â. Plant Physiology, 2012, 160, 2300-2310.	2.3	39
107	Decoding neurohormone pulse frequency by convergent signalling modules. Biochemical Society Transactions, 2012, 40, 273-278.	1.6	9
108	Modeling judgment of sequentially presented categories using weighting and sampling without replacement. Behavior Research Methods, 2012, 44, 1129-1134.	2.3	3

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109	Dynamical systems analysis of spike-adding mechanisms in transient bursts. Journal of Mathematical Neuroscience, 2012, 2, 7.	2.4	28
110	Inhibition of Post-Synaptic Kv7/KCNQ/M Channels Facilitates Long-Term Potentiation in the Hippocampus. PLoS ONE, 2012, 7, e30402.	1.1	32
111	BSim: An Agent-Based Tool for Modeling Bacterial Populations in Systems and Synthetic Biology. PLoS ONE, 2012, 7, e42790.	1.1	116
112	Cross-currents between biology and mathematics: The codimension of pseudo-plateau bursting. Discrete and Continuous Dynamical Systems, 2012, 32, 2853-2877.	0.5	37
113	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
114	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
115	FKBP12 Activates the Cardiac Ryanodine Receptor Ca2+-Release Channel and Is Antagonised by FKBP12.6. PLoS ONE, 2012, 7, e31956.	1.1	56
116	Bacterial Secretion and the Role of Diffusive and Subdiffusive First Passage Processes. PLoS ONE, 2012, 7, e41421.	1.1	1
117	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
118	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
119	From Plateau to Pseudo-Plateau Bursting: MakingÂtheÂTransition. Bulletin of Mathematical Biology, 2011, 73, 1292-1311.	0.9	35
120	Sensitivity analysis to explain the excitability in a pyramidal neuron with application to Alzheimer's disease. BMC Neuroscience, 2011, 12, .	0.8	1
121	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
122	Modeling Mechanisms of Cell Secretion. Acta Biotheoretica, 2010, 58, 315-327.	0.7	13
123	Full system bifurcation analysis of endocrine bursting models. Journal of Theoretical Biology, 2010, 264, 1133-1146.	0.8	84
124	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
125	Encoding and Decoding Mechanisms of Pulsatile Hormone Secretion. Journal of Neuroendocrinology, 2010, 22, 1226-1238.	1.2	61
126	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

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127	Pulsatile and Sustained Gonadotropin-releasing Hormone (GnRH) Receptor Signaling. Journal of Biological Chemistry, 2010, 285, 24360-24371.	1.6	41
128	Pulsatile and Sustained Gonadotropin-releasing Hormone (GnRH) Receptor Signaling. Journal of Biological Chemistry, 2009, 284, 35746-35757.	1.6	51
129	Quantifying Neurite Growth Mediated by Interactions among Secretory Vesicles, Microtubules, and Actin Networks. Biophysical Journal, 2009, 96, 840-857.	0.2	55
130	Accounting for Near-Normal Glucose Sensitivity in Kir6.2[AAA] Transgenic Mice. Biophysical Journal, 2009, 97, 2409-2418.	0.2	8
131	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
132	Mechanism of Spontaneous and Receptor-Controlled Electrical Activity in Pituitary Somatotrophs: Experiments and Theory. Journal of Neurophysiology, 2007, 98, 131-144.	0.9	96
133	Diffusion of Calcium and Metabolites in Pancreatic Islets: Killing Oscillations with a Pitchfork. Biophysical Journal, 2006, 90, 3434-3446.	0.2	85
134	Glucose Modulates [Ca2+]i Oscillations in Pancreatic Islets via Ionic and Glycolytic Mechanisms. Biophysical Journal, 2006, 91, 2082-2096.	0.2	102
135	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
136	Calcium Oscillations and Membrane Transport: The Importance of Two Time Scales. Multiscale Modeling and Simulation, 2005, 3, 245-264.	0.6	8
137	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
138	A Model of Calcium Waves in Pancreatic and Parotid Acinar Cells. Biophysical Journal, 2003, 85, 1392-1405.	0.2	95
139	Systems approaches to understanding GnRH signalling. Endocrine Abstracts, 0, , .	0.0	0
140	Measuring of information transfer via gonadotropin-releasing hormone receptors (GnRHR) shows a remarkable loss of information through signalling. Endocrine Abstracts, 0, , .	0.0	0
141	Fast bacterial growth reduces antibiotic accumulation and efficacy. ELife, 0, 11, .	2.8	32