

Ghanim Ullah

List of Publications by Year in descending order

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49
papers

2,363
citations

304602

22
h-index

223716

46
g-index

59
all docs

59
docs citations

59
times ranked

2801
citing authors

#	ARTICLE	IF	CITATIONS
1	Intrinsic dependencies of <sc>CT</sc> radiomic features on voxel size and number of gray levels. Medical Physics, 2017, 44, 1050-1062.	1.6	428
2	The influence of sodium and potassium dynamics on excitability, seizures, and the stability of persistent states: I. Single neuron dynamics. Journal of Computational Neuroscience, 2009, 26, 159-170.	0.6	230
3	Unification of Neuronal Spikes, Seizures, and Spreading Depression. Journal of Neuroscience, 2014, 34, 11733-11743.	1.7	183
4	Voxel size and gray level normalization of CT radiomic features in lung cancer. Scientific Reports, 2018, 8, 10545.	1.6	150
5	The influence of sodium and potassium dynamics on excitability, seizures, and the stability of persistent states: II. Network and glial dynamics. Journal of Computational Neuroscience, 2009, 26, 171-183.	0.6	125
6	Anti-phase calcium oscillations in astrocytes via inositol (1, 4, 5)-trisphosphate regeneration. Cell Calcium, 2006, 39, 197-208.	1.1	116
7	Assimilating Seizure Dynamics. PLoS Computational Biology, 2010, 6, e1000776.	1.5	98
8	Tracking and control of neuronal Hodgkin-Huxley dynamics. Physical Review E, 2009, 79, 040901.	0.8	76
9	Origin of metastable oligomers and their effects on amyloid fibril self-assembly. Chemical Science, 2018, 9, 5937-5948.	3.7	76
10	Oxygen and seizure dynamics: II. Computational modeling. Journal of Neurophysiology, 2014, 112, 213-223.	0.9	73
11	The Role of Cell Volume in the Dynamics of Seizure, Spreading Depression, and Anoxic Depolarization. PLoS Computational Biology, 2015, 11, e1004414.	1.5	72
12	Modeling Ca ²⁺ signaling differentiation during oocyte maturation. Cell Calcium, 2007, 42, 556-564.	1.1	47
13	Anions Govern Cell Volume: A Case Study of Relative Astrocytic and Neuronal Swelling in Spreading Depolarization. PLoS ONE, 2016, 11, e0147060.	1.1	42
14	Modeling the Statistics of Elementary Calcium Release Events. Biophysical Journal, 2006, 90, 3485-3495.	0.2	40
15	A data-driven model of a modal gated ion channel: The inositol 1,4,5-trisphosphate receptor in insect Sf9 cells. Journal of General Physiology, 2012, 140, 159-173.	0.9	38
16	Multi-scale data-driven modeling and observation of calcium puffs. Cell Calcium, 2012, 52, 152-160.	1.1	36
17	The Critical Role of Spreading Depolarizations in Early Brain Injury: Consensus and Contention. Neurocritical Care, 2022, 37, 83-101.	1.2	36
18	Analyzing and Quantifying the Gain-of-Function Enhancement of IP ₃ Receptor Gating by Familial Alzheimer's Disease-Causing Mutants in Presenilins. PLoS Computational Biology, 2015, 11, e1004529.	1.5	33

#	ARTICLE	IF	CITATIONS
19	Impaired mitochondrial function due to familial Alzheimer's disease-causing presenilins mutants via Ca ²⁺ disruptions. <i>Cell Calcium</i> , 2016, 59, 240-250.	1.1	33
20	The role of glutamate in neuronal ion homeostasis: A case study of spreading depolarization. <i>PLoS Computational Biology</i> , 2017, 13, e1005804.	1.5	32
21	Permeant calcium ion feed-through regulation of single inositol 1,4,5-trisphosphate receptor channel gating. <i>Journal of General Physiology</i> , 2012, 140, 697-716.	0.9	30
22	Analyzing and Modeling the Kinetics of Amyloid Beta Pores Associated with Alzheimer's Disease Pathology. <i>PLoS ONE</i> , 2015, 10, e0137357.	1.1	30
23	The gain-of-function enhancement of IP ₃ -receptor channel gating by familial Alzheimer's disease-linked presenilin mutants increases the open probability of mitochondrial permeability transition pore. <i>Cell Calcium</i> , 2016, 60, 13-24.	1.1	24
24	Accounting for reconstruction kernel-induced variability in CT radiomic features using noise power spectra. <i>Journal of Medical Imaging</i> , 2017, 5, 1.	0.8	24
25	Mitochondrial fragmentation and network architecture in degenerative diseases. <i>PLoS ONE</i> , 2019, 14, e0223014.	1.1	23
26	Mechanism of Fibril and Soluble Oligomer Formation in Amyloid Beta and Hen Egg White Lysozyme Proteins. <i>Journal of Physical Chemistry B</i> , 2019, 123, 5678-5689.	1.2	20
27	Impaired I _v -I _h Coupling Indicates Inhibitory Dysfunction and Seizure Risk in a Dravet Syndrome Mouse Model. <i>Journal of Neuroscience</i> , 2021, 41, 524-537.	1.7	18
28	Analyzing and Modeling the Dysfunction of Inhibitory Neurons in Alzheimer's Disease. <i>PLoS ONE</i> , 2016, 11, e0168800.	1.1	18
29	Questioning Glutamate Excitotoxicity in Acute Brain Damage: The Importance of Spreading Depolarization. <i>Neurocritical Care</i> , 2022, 37, 11-30.	1.2	18
30	Large extracellular space leads to neuronal susceptibility to ischemic injury in a Na ⁺ /K ⁺ pumps-dependent manner. <i>Journal of Computational Neuroscience</i> , 2016, 40, 177-192.	0.6	17
31	Simplification of reversible Markov chains by removal of states with low equilibrium occupancy. <i>Journal of Theoretical Biology</i> , 2012, 311, 117-129.	0.8	16
32	Automated Maximum Likelihood Separation of Signal from Baseline in Noisy Quantal Data. <i>Biophysical Journal</i> , 2013, 105, 68-79.	0.2	16
33	Thermal activation by power-limited coloured noise. <i>New Journal of Physics</i> , 2005, 7, 17-17.	1.2	14
34	All-Trans Retinoic Acid Increases DRP1 Levels and Promotes Mitochondrial Fission. <i>Cells</i> , 2021, 10, 1202.	1.8	13
35	TraceSpecks: A Software for Automated Idealization of Noisy Patch-Clamp and Imaging Data. <i>Biophysical Journal</i> , 2018, 115, 9-21.	0.2	12
36	Kalman filter tracking of intracellular neuronal voltage and current. , 2011, , .		11

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37	Data-driven modeling of mitochondrial dysfunction in Alzheimer's disease. <i>Cell Calcium</i> , 2018, 76, 23-35.	1.1	11
38	The Function of Mitochondrial Calcium Uniporter at the Whole-Cell and Single Mitochondrion Levels in WT, MICU1 KO, and MICU2 KO Cells. <i>Cells</i> , 2020, 9, 1520.	1.8	11
39	The Role of IP3 Receptor Channel Clustering in Ca ²⁺ Wave Propagation During Oocyte Maturation. <i>Progress in Molecular Biology and Translational Science</i> , 2014, 123, 83-101.	0.9	9
40	Mode switching of Inositol 1,4,5-trisphosphate receptor channel shapes the Spatiotemporal scales of Ca ²⁺ signals. <i>Journal of Biological Physics</i> , 2016, 42, 507-524.	0.7	9
41	Alterations of Mitochondrial Network by Cigarette Smoking and E-Cigarette Vaping. <i>Cells</i> , 2022, 11, 1688.	1.8	8
42	Mitochondrial dysfunction and role in spreading depolarization and seizure. <i>Journal of Computational Neuroscience</i> , 2019, 47, 91-108.	0.6	6
43	Analyzing optical imaging of Ca ²⁺ signals via TIRF microscopy: The limits on resolution due to chemical rates and depth of the channels. <i>Cell Calcium</i> , 2017, 67, 65-73.	1.1	4
44	CellSpecks: A Software for Automated Detection and Analysis of Calcium Channels in Live Cells. <i>Biophysical Journal</i> , 2018, 115, 2141-2151.	0.2	4
45	PunctaSpecks: A tool for automated detection, tracking, and analysis of multiple types of fluorescently labeled biomolecules. <i>Cell Calcium</i> , 2020, 89, 102224.	1.1	3
46	Upregulated Ca ²⁺ Release from the Endoplasmic Reticulum Leads to Impaired Presynaptic Function in Familial Alzheimer's Disease. <i>Cells</i> , 2022, 11, 2167.	1.8	3
47	Reduced cooperativity of voltage-gated sodium channels in the hippocampal interneurons of an aged mouse model of Alzheimer's disease. <i>European Biophysics Journal</i> , 2018, 47, 539-547.	1.2	2
48	Mechanisms of Protein Fibril Formation in Amyloid Beta and Lysozyme Proteins. <i>Biophysical Journal</i> , 2019, 116, 195a-196a.	0.2	0
49	On the origin of ultraslow spontaneous Na ⁺ fluctuations in neurons of the neonatal forebrain. <i>Journal of Neurophysiology</i> , 2021, 125, 408-425.	0.9	0