Dimiter P Prodanov

List of Publications by Year
in descending order

60	1,021	516710 16	454955 30
papers	citations	h-index	g-index

67	67	67	1655
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Mechanical and Biological Interactions of Implants with the Brain and Their Impact on Implant Design. Frontiers in Neuroscience, 2016, 10, 11.	2.8	112
2	Migraine preventive drugs differentially affect cortical spreading depression in rat. Neurobiology of Disease, 2011, 41, 430-435.	4.4	96
3	And Then There Was Light: Perspectives of Optogenetics for Deep Brain Stimulation and Neuromodulation. Frontiers in Neuroscience, 2017, 11, 663.	2.8	70
4	Substrate Topography Determines Neuronal Polarization and Growth In Vitro. PLoS ONE, 2013, 8, e66170.	2.5	69
5	A Multichannel Integrated Circuit for Electrical Recording of Neural Activity, With Independent Channel Programmability. IEEE Transactions on Biomedical Circuits and Systems, 2012, 6, 101-110.	4.0	66
6	Three-part differential of unlabeled leukocytes with a compact lens-free imaging flow cytometer. Lab on A Chip, 2015, 15, 1123-1132.	6.0	65
7	Spatial clustering analysis in neuroanatomy: Applications of different approaches to motor nerve fiber distribution. Journal of Neuroscience Methods, 2007, 160, 93-108.	2.5	40
8	Morphometric analysis of the fiber populations of the rat sciatic nerve, its spinal roots, and its major branches. Journal of Comparative Neurology, 2007, 503, 85-100.	1.6	38
9	Automatic morphometry of synaptic boutons of cultured cells using granulometric analysis of digital images. Journal of Neuroscience Methods, 2006, 151, 168-177.	2.5	37
10	Regularized Integral Representations of the Reciprocal Gamma Function. Fractal and Fractional, 2019, 3, 1.	3.3	31
11	Probing the 3D architecture of the plant nucleus with microscopy approaches: challenges and solutions. Nucleus, 2019, 10, 181-212.	2.2	30
12	Analytical Parameter Estimation of the SIR Epidemic Model. Applications to the COVID-19 Pandemic. Entropy, 2021, 23, 59.	2.2	28
13	Effect of the acetylcholinesterase inhibitor galanthamine on learning and memory in prolonged alcohol intake rat model of acetylcholine deficit. Methods and Findings in Experimental and Clinical Pharmacology, 1999, 21, 297.	0.8	25
14	Accurate label-free 3-part leukocyte recognition with single cell lens-free imaging flow cytometry. Computers in Biology and Medicine, 2018, 96, 147-156.	7.0	23
15	Three-dimensional topography of the motor endplates of the rat gastrocnemius muscle. Muscle and Nerve, 2005, 32, 292-302.	2.2	22
16	Action potential-based MEA platform for in vitro screening of drug-induced cardiotoxicity using human iPSCs and rat neonatal myocytes. Journal of Pharmacological and Toxicological Methods, 2017, 87, 48-52.	0.7	22
17	Functional electric stimulation for sensory and motor functions: progress and problems. Biomedical Reviews, 2014, 14, 23.	0.6	22
18	A Post-ischaemic Single Administration of Galanthamine, a Cholinesterase Inhibitor, Improves Learning Ability in Rats. Journal of Pharmacy and Pharmacology, 2010, 52, 1151-1156.	2.4	19

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19	Effects Of Dexamethasone In Rat Neonatal Model Of Axotomy-Induced Motoneuronal Cell Death. Archives of Physiology and Biochemistry, 1998, 106, 355-361.	2.1	15
20	Automated Segmentation and Morphometry of Cell and Tissue Structures. Selected Algorithms in ImageJ. , 0, , .		15
21	In vitro and In vivo electrochemical characterization of a microfabricated neural Probe. , 2009, 2009, 7143-6.		14
22	A model of space-fractional-order diffusion in the glial scar. Journal of Theoretical Biology, 2016, 403, 97-109.	1.7	14
23	Conditions for continuity of fractional velocity and existence of fractional Taylor expansions. Chaos, Solitons and Fractals, 2017, 102, 236-244.	5.1	14
24	Automated characterization of nerve fibers labeled fluorescently: Determination of size, class and spatial distribution. Brain Research, 2008, 1233, 35-50.	2.2	13
25	Fractional Velocity as a Tool for the Study of Non-Linear Problems. Fractal and Fractional, 2018, 2, 4.	3.3	13
26	Comments on some analytical and numerical aspects of the SIR model. Applied Mathematical Modelling, 2021, 95, 236-243.	4.2	13
27	Regularization of derivatives on non-differentiable points. Journal of Physics: Conference Series, 2016, 701, 012031.	0.4	10
28	Some Applications of Fractional Velocities. Fractional Calculus and Applied Analysis, 2016, 19, 173-187.	2.2	9
29	Neuronal activity in the bed nucleus of the stria terminalis in a rat model for obsessiveâ€“compulsive disorder. Behavioural Brain Research, 2013, 240, 52-59.	2.2	8
30	Fractional variation of HÃ¶lderian functions. Fractional Calculus and Applied Analysis, 2015, 18, 580-602.	2.2	8
31	Failure Modes of Implanted Neural Interfaces. , 2020, , 123-172.		8
32	Preliminary Minimum Reporting Requirements for In-Vivo Neural Interface Research: I. Implantable Neural Interfaces. IEEE Open Journal of Engineering in Medicine and Biology, 2021, 2, 74-83.	2.3	7
33	Data Ontology and an Information System Realization for Web-Based Management of Image Measurements. Frontiers in Neuroinformatics, 2011, 5, 25.	2.5	4
34	Characterization of strongly non-linear and singular functions by scale space analysis. Chaos, Solitons and Fractals, 2016, 93, 14-19.	5.1	4
35	Sparse Representations of Clifford and Tensor Algebras in Maxima. Advances in Applied Clifford Algebras, 2017, 27, 661-683.	1.0	4
36	The Active Segmentation Platform for Microscopic Image Classification and Segmentation. Brain Sciences, 2021, 11, 1645.	2.3	4

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37	Selected Applications of Scale Spaces in Microscopic Image Analysis. Cybernetics and Information Technologies, 2015, 15, 5-12.	1.1	3
38	Tools for Assessment of Occupational Health Risks of some Engineered Nanoparticles and Carbon Materials Used in Semiconductor Applications. , 0, , .		3
39	Analytical and Numerical Treatments of Conservative Diffusions and the Burgers Equation. Entropy, 2018, 20, 492.	2.2	3
40	Characterization of the Local Growth of Two Cantor-Type Functions. Fractal and Fractional, 2019, 3, 45.	3.3	3
41	Integral Representations and Algebraic Decompositions of the Fox-Wright Type of Special Functions. Fractal and Fractional, 2019, 3, 4.	3.3	3
42	Management of health risk related to use of engineered nanomaterials. An analogy with biosafety. Biomedical Reviews, 2018, 28, 100.	0.6	3
43	Banding approach for engineered nanomaterial risk assessment and control. Journal of Physics: Conference Series, 2017, 838, 012017.	0.4	2
44	Self-similar decomposition of digital signals. , 2019, , .		2
45	Workshop Report: Governance of Emerging Nanotechnology Risks in the Semiconductor Industry. Frontiers in Public Health, 2020, 8, 275.	2.7	2
46	New Trends and Challenges in the Development of Microfabricated Probes for Recording and Stimulating of Excitable Cells. , 2010, , .		1
47	Generalized Differentiability of Continuous Functions. Fractal and Fractional, 2020, 4, 56.	3.3	1
48	Open source image analysis software toolboxes for microscopic applications. Frontiers in Neuroinformatics, 0, 7, .	2.5	1
49	Data ontology and information system for management of image measurements over the Internet. Frontiers in Neuroinformatics, 0, 3, .	2.5	1
50	Using reciprocal derivative chronopotentiometry as a technique to determine safe charge injection limits of electrodes used for neural stimulation. , 2010, 2010, 2943-6.		0
51	Generic assessment of novel risks related to the use of engineered nanomaterials. , 2018, , .		0
52	The Burgers equations and the Born rule. Chaos, Solitons and Fractals, 2021, 144, 110637.	5.1	0
53	Local generalizations of the derivatives on the real line. Communications in Nonlinear Science and Numerical Simulation, 2021, 96, 105576.	3.3	0
54	DBS for obsessive-compulsive disorder. , 2009, , 179-186.		0

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55	Comparison of parallelized gray-scale zonal operations on CPU and GPU. Frontiers in Neuroinformatics, 0, 7, .	2.5	0
56	Scale-space based segmentation of cells in functional two-photon in vivo images. Frontiers in Neuroinformatics, 0, 7, .	2.5	0
57	Shining light on the role of Parvalbumin interneurons in cortical spreading depression. Frontiers in Aging Neuroscience, 0, 8, .	3.4	0
58	Clifford Algebra Implementations in Maxima. Journal of Geometry and Symmetry in Physics, 2017, 43, 73-105.	0.3	0
59	Multiscale Segmentation of Microscopic Images. , 0, , .		0
60	Self-Similar Decomposition of Digital Signals. Cybernetics and Information Technologies, 2020, 20, 20-37.	1.1	0