Steven D Wiederman

List of Publications by Year
in descending order

44	811	623188	580395
papers	citations	14 h-index	25 g-index

54	54	54	449
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Controlled delivery of quantum dots using microelectrophoresis technique: Intracellular behavior and preservation of cell viability. Bioelectrochemistry, 2022, 144, 108035.	2.4	0
2	Dragonfly Neurons Selectively Attend to Targets Within Natural Scenes. Frontiers in Cellular Neuroscience, 2022, 16, 857071.	1.8	5
3	Spike bursting in a dragonfly target-detecting neuron. Scientific Reports, 2021, 11, 4005.	1.6	6
4	Cytoplasmic delivery of quantum dots via microelectrophoresis technique. Electrophoresis, 2021, 42, 1247-1254.	1.3	1
5	Modeling Nonlinear Dendritic Processing of Facilitation in a Dragonfly Target-Tracking Neuron. Frontiers in Neural Circuits, 2021, 15, 684872.	1.4	1
6	Nonlinear, neuronal adaptation in insect vision models improves target discrimination within repetitively moving backgrounds. Bioinspiration and Biomimetics, 2021, 16, .	1.5	1
7	The visual neuroecology of anisoptera. Current Opinion in Insect Science, 2020, 42, 14-22.	2.2	8
8	Recurrent Motion Neural Network for Low Resolution Drone Detection. , 2020, , .		1
9	A Target-Detecting Visual Neuron in the Dragonfly Locks on to Selectively Attended Targets. Journal of Neuroscience, 2019, 39, 8497-8509.	1.7	26
10	Properties of predictive gain modulation in a dragonfly visual neuron. Journal of Experimental Biology, 2019, 222, .	0.8	17
11	Differential Tuning to Visual Motion Allows Robust Encoding of Optic Flow in the Dragonfly. Journal of Neuroscience, 2019, 39, 8051-8063.	1.7	13
12	Visual acuity of the honey bee retina and the limits for feature detection. Scientific Reports, 2017, 7, 45972.	1.6	32
13	Performance of an insect-inspired target tracker in natural conditions. Bioinspiration and Biomimetics, 2017, 12, 025006.	1.5	38
14	An autonomous robot inspired by insect neurophysiology pursues moving features in natural environments. Journal of Neural Engineering, 2017, 14, 046030.	1.8	34
15	Photoreceptor signalling is sufficient to explain the detectability threshold of insect aerial pursuers. Journal of Experimental Biology, 2017, 220, 4364-4369.	0.8	5
16	Multicompartment Simulations of NMDA Receptor Based Facilitation in an Insect Target Tracking Neuron. Lecture Notes in Computer Science, 2017, , 397-404.	1.0	4
17	A predictive focus of gain modulation encodes target trajectories in insect vision. ELife, 2017, 6, .	2.8	55
18	Salience invariance with divisive normalization in higher-order insect neurons. , 2016, , .		2

#	Article	IF	Citations
19	Quantifying asynchrony of multiple cameras using aliased optical devices. , 2015, , .		3
20	Multi-focal video fusion with a beam splitter prism. , 2015, , .		1
21	Robustness and Real-Time Performance of an Insect Inspired Target Tracking Algorithm Under Natural Conditions. , 2015, , .		1
22	Properties of neuronal facilitation that improve target tracking in natural pursuit simulations. Journal of the Royal Society Interface, 2015, 12, 20150083.	1.5	15
23	A Biologically Inspired Facilitation Mechanism Enhances the Detection and Pursuit of Targets of Varying Contrast. , 2014, , .		1
24	Contrast sensitivity and the detection of moving patterns and features. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20130043.	1.8	57
25	Performance assessment of an insect-inspired target tracking model in background clutter. , 2014, , .		1
26	Correlation between OFF and ON Channels Underlies Dark Target Selectivity in an Insect Visual System. Journal of Neuroscience, 2013, 33, 13225-13232.	1.7	46
27	Can a competitive neural network explain selective attention in insect target tracking neurons?. , 2013, , .		0
28	Selective Attention in an Insect Visual Neuron. Current Biology, 2013, 23, 156-161.	1.8	87
29	Biologically Inspired Feature Detection Using Cascaded Correlations of off and on Channels. Journal of Artificial Intelligence and Soft Computing Research, 2013, 3, 5-14.	3.5	15
30	Biomimetic target detection: Modeling 2nd order correlation of OFF and ON channels. , 2013, , .		10
31	Bio-inspired feature extraction and enhancement of targets moving against visual clutter during closed loop pursuit. , 2013, , .		3
32	Assessment outcome is weakly correlated with lecture attendance: influence of learning style and use of alternative materials. American Journal of Physiology - Advances in Physiology Education, 2012, 36, 108-115.	0.8	51
33	Facilitation of dragonfly target-detecting neurons by slow moving features on continuous paths. Frontiers in Neural Circuits, 2012, 6, 79.	1.4	39
34	Modeling inhibitory interactions shaping neural responses of target neurons to multiple features. , 2011, , .		0
35	Discrete implementation of biologically inspired image processing for target detection. , 2011, , .		9
36	Modelling the temporal response properties of an insect small target motion detector. , 2011, , .		8

#	Article	IF	Citations
37	Discrimination of Features in Natural Scenes by a Dragonfly Neuron. Journal of Neuroscience, 2011, 31, 7141-7144.	1.7	40
38	Wound Repair on Horses with Equine CPNNB1 and PECAM1. , 2011, , 126-140.		0
39	Performance of a Bio-Inspired Model for the Robust Detection of Moving Targets in High Dynamic Range Natural Scenes. Journal of Computational and Theoretical Nanoscience, 2010, 7, 911-920.	0.4	23
40	Bio-inspired small target discrimination in high dynamic range natural scenes. , 2008, , .		7
41	Bio-inspired target detection in natural scenes: optimal thresholds and ego-motion. , 2008, , .		5
42	A Model for the Detection of Moving Targets in Visual Clutter Inspired by Insect Physiology. PLoS ONE, 2008, 3, e2784.	1.1	121
43	Biologically Inspired Small Target Detection Mechanisms. , 2007, , .		8
44	Selective attention in the dragonfly. Frontiers in Physiology, 0, 4, .	1.3	0