

Michael R Ibbotson

List of Publications by Year in descending order

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123
papers

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citations

201385

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47
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126
all docs

126
docs citations

126
times ranked

2497
citing authors

#	ARTICLE	IF	CITATIONS
1	Eye health profile of affordable eye care service users. Australasian journal of optometry, The, 2022, 105, 649-657.	0.6	1
2	Laminin coated diamond electrodes for neural stimulation. Materials Science and Engineering C, 2021, 118, 111454.	3.8	12
3	Analysis of extracellular spike waveforms and associated receptive fields of neurons in cat primary visual cortex. Journal of Physiology, 2021, 599, 2211-2238.	1.3	25
4	Advances in Carbon-Based Microfiber Electrodes for Neural Interfacing. Frontiers in Neuroscience, 2021, 15, 658703.	1.4	26
5	Improved visual acuity using a retinal implant and an optimized stimulation strategy. Journal of Neural Engineering, 2020, 17, 016018.	1.8	23
6	Hybrid diamond/ carbon fiber microelectrodes enable multimodal electrical/chemical neural interfacing. Biomaterials, 2020, 230, 119648.	5.7	41
7	Adaptive Surround Modulation of MT Neurons: A Computational Model. Frontiers in Neural Circuits, 2020, 14, 529345.	1.4	1
8	High Fidelity Bidirectional Neural Interfacing with Carbon Fiber Microelectrodes Coated with Boron-Doped Carbon Nanowalls: An Acute Study. Advanced Functional Materials, 2020, 30, 2006101.	7.8	10
9	Optical stimulation of neural tissue. Healthcare Technology Letters, 2020, 7, 58-65.	1.9	25
10	Mechanisms of Feature Selectivity and Invariance in Primary Visual Cortex. Cerebral Cortex, 2020, 30, 5067-5087.	1.6	13
11	Minimizing axon bundle activation of retinal ganglion cells with oriented rectangular electrodes. Journal of Neural Engineering, 2020, 17, 036016.	1.8	6
12	Origins of Functional Organization in the Visual Cortex. Frontiers in Systems Neuroscience, 2020, 14, 10.	1.2	10
13	3D Diamond Electrode Array for High-Acuity Stimulation in Neural Tissue. ACS Applied Bio Materials, 2020, 3, 1544-1552.	2.3	16
14	Stimulation Strategies for Improving the Resolution of Retinal Prostheses. Frontiers in Neuroscience, 2020, 14, 262.	1.4	38
15	Visual Information Processing. , 2020, , 36-53.		0
16	Pattern Motion Processing by MT Neurons. Frontiers in Neural Circuits, 2019, 13, 43.	1.4	6
17	Contrast-dependent phase sensitivity in area MT of macaque visual cortex. NeuroReport, 2019, 30, 195-201.	0.6	0
18	Comparison of contrast-dependent phase sensitivity in primary visual cortex of mouse, cat and macaque. NeuroReport, 2019, 30, 960-965.	0.6	1

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19	Synaptic Basis for Contrast-Dependent Shifts in Functional Identity in Mouse V1. <i>ENeuro</i> , 2019, 6, ENEURO.0480-18.2019.	0.9	6
20	Upper stimulation threshold for retinal ganglion cell activation. <i>Journal of Neural Engineering</i> , 2018, 15, 046012.	1.8	19
21	A biologically-based computational model of visual cortex that overcomes the X-junction illusion. <i>Neural Networks</i> , 2018, 102, 10-20.	3.3	6
22	Feasibility of Nitrogen Doped Ultrananocrystalline Diamond Microelectrodes for Electrophysiological Recording From Neural Tissue. <i>Frontiers in Bioengineering and Biotechnology</i> , 2018, 6, 85.	2.0	8
23	In vitro assessment of the differences in retinal ganglion cell responses to intra- and extracellular electrical stimulation. <i>Journal of Neural Engineering</i> , 2018, 15, 046022.	1.8	6
24	Electrical receptive fields of retinal ganglion cells: Influence of presynaptic neurons. <i>PLoS Computational Biology</i> , 2018, 14, e1005997.	1.5	15
25	Visual Neuroscience: Unique Neural System for Flight Stabilization in Hummingbirds. <i>Current Biology</i> , 2017, 27, R58-R61.	1.8	9
26	Diamond Devices for High Acuity Prosthetic Vision. <i>Advanced Biology</i> , 2017, 1, e1600003.	3.0	35
27	Bond graph modelling of chemoelectrical energy transduction. <i>IET Systems Biology</i> , 2017, 11, 127-138.	0.8	18
28	Neural basis of forward flight control and landing in honeybees. <i>Scientific Reports</i> , 2017, 7, 14591.	1.6	20
29	Single-compartment models of retinal ganglion cells with different electrophysiologies. <i>Network: Computation in Neural Systems</i> , 2017, 28, 74-93.	2.2	10
30	Long-term sensorimotor adaptation in the ocular following system of primates. <i>PLoS ONE</i> , 2017, 12, e0189030.	1.1	6
31	A Possible Role for End-Stopped V1 Neurons in the Perception of Motion: A Computational Model. <i>PLoS ONE</i> , 2016, 11, e0164813.	1.1	7
32	Transient photoresponse of nitrogen-doped ultrananocrystalline diamond electrodes in saline solution. <i>Applied Physics Letters</i> , 2016, 108, .	1.5	8
33	A Simple and Accurate Model to Predict Responses to Multi-electrode Stimulation in the Retina. <i>PLoS Computational Biology</i> , 2016, 12, e1004849.	1.5	30
34	Frequency Responses of Rat Retinal Ganglion Cells. <i>PLoS ONE</i> , 2016, 11, e0157676.	1.1	13
35	Sensory experience modifies feature map relationships in visual cortex. <i>ELife</i> , 2016, 5, .	2.8	27
36	Prosthetic vision: devices, patient outcomes and retinal research. <i>Australasian journal of optometry, The</i> , 2015, 98, 395-410.	0.6	30

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37	Spatial phase sensitivity of complex cells in primary visual cortex depends on stimulus contrast. <i>Journal of Neurophysiology</i> , 2015, 114, 3326-3338.	0.9	12
38	Contrast and response gain control depend on cortical map architecture. <i>European Journal of Neuroscience</i> , 2015, 42, 2963-2973.	1.2	0
39	Saccade-induced image motion cannot account for post-saccadic enhancement of visual processing in primate MST. <i>Frontiers in Systems Neuroscience</i> , 2015, 9, 122.	1.2	3
40	Contrast-dependent phase sensitivity in V1 but not V2 of macaque visual cortex. <i>Journal of Neurophysiology</i> , 2015, 113, 434-444.	0.9	12
41	The effects of temperature changes on retinal ganglion cell responses to electrical stimulation. , 2015, 2015, 7506-9.		4
42	Visual fatigue induced by optical misalignment in binocular devices: application to night vision binocular devices. , 2015, , .		1
43	Soft, Flexible Freestanding Neural Stimulation and Recording Electrodes Fabricated from Reduced Graphene Oxide. <i>Advanced Functional Materials</i> , 2015, 25, 3551-3559.	7.8	117
44	The role of visual deprivation and experience on the performance of sensory substitution devices. <i>Brain Research</i> , 2015, 1624, 140-152.	1.1	26
45	Optimizing the Electrical Stimulation of Retinal Ganglion Cells. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2015, 23, 169-178.	2.7	40
46	Ocellar structure and neural innervation in the honeybee. <i>Frontiers in Neuroanatomy</i> , 2014, 8, 6.	0.9	33
47	Behavioral Lateralization and Optimal Route Choice in Flying Budgerigars. <i>PLoS Computational Biology</i> , 2014, 10, e1003473.	1.5	17
48	Efficacy of electrical stimulation of retinal ganglion cells with temporal patterns resembling light-evoked spike trains. , 2014, 2014, 1707-10.		2
49	Stripe-rearing changes multiple aspects of the structure of primary visual cortex. <i>NeuroImage</i> , 2014, 95, 305-319.	2.1	2
50	Phase sensitivity of complex cells in primary visual cortex. <i>Neuroscience</i> , 2013, 237, 19-28.	1.1	21
51	Retinal ganglion cells electrophysiology: The effect of cell morphology on impulse waveform. , 2013, 2013, 2583-6.		0
52	A universal strategy for visually guided landing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 18686-18691.	3.3	122
53	Spectral inputs and ocellar contributions to a pitch-sensitive descending neuron in the honeybee. <i>Journal of Neurophysiology</i> , 2013, 109, 1202-1213.	0.9	10
54	Intrinsic physiological properties of rat retinal ganglion cells with a comparative analysis. <i>Journal of Neurophysiology</i> , 2012, 108, 2008-2023.	0.9	64

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55	Sparse Coding on the Spot: Spontaneous Retinal Waves Suffice for Orientation Selectivity. <i>Neural Computation</i> , 2012, 24, 2422-2433.	1.3	9
56	Epiretinal electrical stimulation and the inner limiting membrane in rat retina. , 2012, 2012, 2989-92.		5
57	Bionic eyes: where are we and what does the future hold?. <i>Australasian journal of optometry</i> , The, 2012, 95, 471-472.	0.6	1
58	Electrical stimulation of retinal ganglion cells with diamond and the development of an all diamond retinal prosthesis. <i>Biomaterials</i> , 2012, 33, 5812-5820.	5.7	109
59	Visual perception and saccadic eye movements. <i>Current Opinion in Neurobiology</i> , 2011, 21, 553-558.	2.0	138
60	Optic Flow Cues Guide Flight in Birds. <i>Current Biology</i> , 2011, 21, 1794-1799.	1.8	99
61	Visual response properties of neck motor neurons in the honeybee. <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 2011, 197, 1173-1187.	0.7	6
62	Differential changes in perceived contrast following contrast adaptation in humans. <i>Vision Research</i> , 2010, 50, 12-19.	0.7	1
63	Effects of saccades on visual processing in primate MSTd. <i>Vision Research</i> , 2010, 50, 2683-2691.	0.7	26
64	Complex cell receptive fields: evidence for a hierarchical mechanism. <i>Journal of Physiology</i> , 2010, 588, 3457-3470.	1.3	21
65	A Three-Dimensional Atlas of the Honeybee Neck. <i>PLoS ONE</i> , 2010, 5, e10771.	1.1	16
66	Applicability of White-Noise Techniques to Analyzing Motion Responses. <i>Journal of Neurophysiology</i> , 2010, 103, 2642-2651.	0.9	7
67	Focal activation of primary visual cortex following supra-choroidal electrical stimulation of the retina: Intrinsic signal imaging and linear model analysis. , 2010, 2010, 6765-8.		1
68	Vestibular Stimulation Affects Optic-Flow Sensitivity. <i>Perception</i> , 2010, 39, 1303-1310.	0.5	12
69	The influence of restricted orientation rearing on map structure in primary visual cortex. <i>NeuroImage</i> , 2010, 52, 875-883.	2.1	20
70	Direction and Contrast Tuning of Macaque MSTd Neurons During Saccades. <i>Journal of Neurophysiology</i> , 2009, 101, 3100-3107.	0.9	15
71	Edge Detection in Landing Budgerigars (<i>Melopsittacus undulatus</i>). <i>PLoS ONE</i> , 2009, 4, e7301.	1.1	23
72	Visual Perception: Saccadic Omission "Suppression or Temporal Masking?. <i>Current Biology</i> , 2009, 19, R493-R496.	1.8	37

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73	Intrasaccadic Motion: Neural Evidence for Saccadic Suppression and Postsaccadic Enhancement. , 2009, , 239-257.		1
74	Dynamic contrast change produces rapid gain control in visual cortex. Journal of Physiology, 2008, 586, 4107-4119.	1.3	15
75	Saccadic Modulation of Neural Responses: Possible Roles in Saccadic Suppression, Enhancement, and Time Compression. Journal of Neuroscience, 2008, 28, 10952-10960.	1.7	88
76	Differential changes in human perception of speed due to motion adaptation. Journal of Vision, 2008, 8, 6-6.	0.1	20
77	Relative Sensitivities to Large-Field Optic-Flow Patterns Varying in Direction and Speed. Perception, 2007, 36, 113-124.	0.5	39
78	Characterizing contrast adaptation in a population of cat primary visual cortical neurons using Fisher information. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2007, 24, 1529.	0.8	30
79	Complex Cells Increase Their Phase Sensitivity at Low Contrasts and Following Adaptation. Journal of Neurophysiology, 2007, 98, 1155-1166.	0.9	41
80	Contrast Gain Control Is Drift-Rate Dependent: An Informational Analysis. Journal of Neurophysiology, 2007, 97, 1078-1087.	0.9	10
81	Influence of adapting speed on speed and contrast coding in the primary visual cortex of the cat. Journal of Physiology, 2007, 584, 451-462.	1.3	22
82	Reshaping the binding problem of form and motion vision. Journal of Physiology, 2007, 585, 319-319.	1.3	5
83	The morphology, physiology and function of suboesophageal neck motor neurons in the honeybee. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2007, 193, 289-304.	0.7	9
84	Relationship Between Contrast Adaptation and Orientation Tuning in V1 and V2 of Cat Visual Cortex. Journal of Neurophysiology, 2006, 95, 271-283.	0.9	67
85	Neurons in V1, V2, and PMLS of Cat Cortex Are Speed Tuned But Not Acceleration Tuned: The Influence of Motion Adaptation. Journal of Neurophysiology, 2006, 95, 660-673.	0.9	23
86	Visual Functions of the Retinorecipient Nuclei in the Midbrain, Pretectum, and Ventral Thalamus of Primates. , 2006, , 213-265.		3
87	Neural basis of time changes during saccades. Current Biology, 2006, 16, R834-R836.	1.8	18
88	Enhanced Motion Sensitivity Follows Saccadic Suppression in the Superior Temporal Sulcus of the Macaque Cortex. Cerebral Cortex, 2006, 17, 1129-1138.	1.6	66
89	Comparing Acceleration and Speed Tuning in Macaque MT: Physiology and Modeling. Journal of Neurophysiology, 2005, 94, 3451-3464.	0.9	82
90	Torsional eye movements during psychophysical testing with rotating patterns. Experimental Brain Research, 2005, 160, 264-267.	0.7	11

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91	On the Division of Cortical Cells Into Simple and Complex Types: A Comparative Viewpoint. <i>Journal of Neurophysiology</i> , 2005, 93, 3699-3702.	0.9	27
92	Contrast and Temporal Frequency-Related Adaptation in the Pretectal Nucleus of the Optic Tract. <i>Journal of Neurophysiology</i> , 2005, 94, 136-146.	0.9	21
93	Rapid Processing of Retinal Slip During Saccades in Macaque Area MT. <i>Journal of Neurophysiology</i> , 2005, 94, 235-246.	0.9	60
94	Physiological Mechanisms of Adaptation in the Visual System. , 2005, , 17-46.		16
95	Tuning properties of radial phantom motion aftereffects. <i>Vision Research</i> , 2004, 44, 1971-1979.	0.7	16
96	Orientation and spatiotemporal tuning of cells in the primary visual cortex of an Australian marsupial, the wallaby <i>Macropus eugenii</i> . <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 2003, 189, 115-123.	0.7	17
97	Sensitivity to the acceleration of looming stimuli. <i>Clinical and Experimental Ophthalmology</i> , 2003, 31, 258-261.	1.3	15
98	Fundamental mechanisms of visual motion detection: models, cells and functions. <i>Progress in Neurobiology</i> , 2002, 68, 409-437.	2.8	164
99	Direction-Selective Neurons in the Optokinetic System With Long-Lasting After-Responses. <i>Journal of Neurophysiology</i> , 2002, 88, 2224-2231.	0.9	6
100	Investigations into the source of binocular input to the nucleus of the optic tract in an Australian marsupial, the wallaby <i>Macropus eugenii</i> . <i>Experimental Brain Research</i> , 2002, 147, 80-88.	0.7	8
101	Characterising temporal delay filters in biological motion detectors. <i>Vision Research</i> , 2001, 41, 2311-2323.	0.7	22
102	Pretectal Neurons Optimized for the Detection of Saccade-Like Movements of the Visual Image. <i>Journal of Neurophysiology</i> , 2001, 85, 1512-1521.	0.9	19
103	Spatiotemporal Tuning of Directional Neurons in Mammalian and Avian Pretectum: A Comparison of Physiological Properties. <i>Journal of Neurophysiology</i> , 2001, 86, 2621-2624.	0.9	28
104	Pretectal neurons responding to slow wide-field retinal motion: could they compensate for slow drift during fixation?. <i>Clinical and Experimental Ophthalmology</i> , 2001, 29, 201-205.	1.3	1
105	Evidence for velocity-tuned motion-sensitive descending neurons in the honeybee. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2001, 268, 2195-2201.	1.2	61
106	Identification of Mechanisms Underlying Motion Detection in Mammals. , 2001, , 57-65.		2
107	Response variability and information transfer in directional neurons of the mammalian horizontal optokinetic system. <i>Visual Neuroscience</i> , 2000, 17, 207-215.	0.5	10
108	Employing following eye movements to discriminate normal from glaucoma subjects. <i>Clinical and Experimental Ophthalmology</i> , 2000, 28, 172-174.	1.3	7

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109	Distribution of retinogeniculate cells in the Tammar wallaby in relation to decussation at the optic chiasm. , 1999, 405, 128-140.		12
110	A quadratic nonlinearity underlies direction selectivity in the nucleus of the optic tract. Visual Neuroscience, 1999, 16, 991-1000.	0.5	11
111	Adaptation to Visual Motion in Directional Neurons of the Nucleus of the Optic Tract. Journal of Neurophysiology, 1998, 79, 1481-1493.	0.9	40
112	An adaptive Reichardt detector model of motion adaptation in insects and mammals. Visual Neuroscience, 1997, 14, 741-749.	0.5	58
113	Impulse responses distinguish two classes of directional motion-sensitive neurons in the nucleus of the optic tract. Journal of Neurophysiology, 1996, 75, 996-1007.	0.9	21
114	Neural and behavioral effects of early eye rotation on the optokinetic system in the wallaby, Macropus eugenii. Journal of Neurophysiology, 1995, 73, 727-735.	0.9	20
115	Wide-field nondirectional visual units in the pretectum: do they suppress ocular following of saccade-induced visual stimulation. Journal of Neurophysiology, 1994, 72, 1448-1450.	0.9	18
116	Spatiotemporal response properties of direction-selective neurons in the nucleus of the optic tract and dorsal terminal nucleus of the wallaby, Macropus eugenii. Journal of Neurophysiology, 1994, 72, 2927-2943.	0.9	67
117	The effects of adaptation to visual stimuli on the velocity of subsequent ocular following responses. Experimental Brain Research, 1994, 99, 148-54.	0.7	6
118	â€˜Vector white noiseâ€™: a technique for mapping the motion receptive fields of direction-selective visual neurons. Biological Cybernetics, 1993, 68, 199-207.	0.6	10
119	Human ocular following responses are plastic: evidence for control by temporal frequency-dependent cortical adaptation. Experimental Brain Research, 1992, 91, 525-38.	0.7	7
120	Direction-selective neurons with tonic and phasic response profiles contribute to the optokinetic system of Apis mellifera. Die Naturwissenschaften, 1992, 79, 467-470.	0.6	10
121	A system of insect neurons sensitive to horizontal and vertical image motion connects the medulla and midbrain. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1991, 169, 355.	0.7	23
122	Wide-field motion-sensitive neurons tuned to horizontal movement in the honeybee, Apis mellifera. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1991, 168, 91-102.	0.7	54
123	Response Characteristics of Four Wide-Field Motion-Sensitive Descending Interneurons IN Apis Melufera. Journal of Experimental Biology, 1990, 148, 255-279.	0.8	34