Ian C Bruce

List of Publications by Year
in descending order

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45 papers	2,262 citations	430874 18 h-index	330143 37 g-index
45 all docs	45 docs citations	45 times ranked	1062 citing authors

#	Article	IF	Citations
1	A comparative study of eight human auditory models of monaural processing. Acta Acustica, 2022, 6, 17.	1.0	21
2	Computationally Efficient DNN-Based Approximation of an Auditory Model for Applications in Speech Processing. , 2021, , .		5
3	Phenomenological model of auditory nerve population responses to cochlear implant stimulation. Journal of Neuroscience Methods, 2021, 358, 109212.	2.5	5
4	Measuring temporal response properties of auditory nerve fibers in cochlear implant recipients. Hearing Research, 2019, 380, 187-196.	2.0	13
5	A phenomenological model of the synapse between the inner hair cell and auditory nerve: Implications of limited neurotransmitter release sites. Hearing Research, 2018, 360, 40-54.	2.0	96
6	Perceptual and Model-Based Evaluation of Ideal Time-Frequency Noise Reduction in Hearing-Impaired Listeners. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 687-697.	4.9	8
7	Envelope following responses, noise exposure, and evidence of cochlear synaptopathy in humans: Correction and comment. Journal of the Acoustical Society of America, 2018, 143, EL487-EL489.	1.1	9
8	Predicting phoneme and word recognition in noise using a computational model of the auditory periphery. Journal of the Acoustical Society of America, 2017, 141, 300-312.	1.1	9
9	Predicting the quality of enhanced wideband speech with a cochlear model. Journal of the Acoustical Society of America, 2017, 142, EL319-EL325.	1.1	7
10	Predictions of Speech Chimaera Intelligibility Using Auditory Nerve Mean-Rate and Spike-Timing Neural Cues. JARO - Journal of the Association for Research in Otolaryngology, 2017, 18, 687-710.	1.8	7
11	Predictions of the Contribution of HCN Half-Maximal Activation Potential Heterogeneity to Variability in Intrinsic Adaptation of Spiral Ganglion Neurons. JARO - Journal of the Association for Research in Otolaryngology, 2017, 18, 301-322.	1.8	10
12	Evidence that hidden hearing loss underlies amplitude modulation encoding deficits in individuals with and without tinnitus. Hearing Research, 2017, 344, 170-182.	2.0	79
13	Subcortical amplitude modulation encoding deficits suggest evidence of cochlear synaptopathy in normal-hearing 18â€“19 year olds with higher lifetime noise exposure. Journal of the Acoustical Society of America, 2017, 142, EL434-EL440.	1.1	18
14	Phenomenological modelling of electrically stimulated auditory nerve fibers: A review. Network: Computation in Neural Systems, 2016, 27, 157-185.	3.6	11
15	The history and future of neural modeling for cochlear implants. Network: Computation in Neural Systems, 2016, 27, 53-66.	3.6	8
16	Temporal Considerations for Stimulating Spiral Ganglion Neurons with Cochlear Implants. JARO - Journal of the Association for Research in Otolaryngology, 2016, 17, 1-17.	1.8	89
17	Evidence for differential modulation of primary and nonprimary auditory cortex by forward masking in tinnitus. Hearing Research, 2015, 327, 9-27.	2.0	33
18	Updated parameters and expanded simulation options for a model of the auditory periphery. Journal of the Acoustical Society of America, 2014, 135, 283-286.	1.1	255

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19	The Effects of HCN and KLT Ion Channels on Adaptation and Refractoriness in a Stochastic Auditory Nerve Model. IEEE Transactions on Biomedical Engineering, 2014, 61, 2749-2759.	4.2	29
20	Modulation of Electrocortical Brain Activity by Attention in Individuals with and without Tinnitus. Neural Plasticity, 2014, 2014, 1-16.	2.2	17
21	Analysis of Spatiotemporal Pattern Correction Using a Computational Model of the Auditory Periphery. Ear and Hearing, 2014, 35, 246-255.	2.1	0
22	Superior time perception for lower musical pitch explains why bass-ranged instruments lay down musical rhythms. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10383-10388.	7.1	100
23	Explaining the high voice superiority effect in polyphonic music: Evidence from cortical evoked potentials and peripheral auditory models. Hearing Research, 2014, 308, 60-70.	2.0	37
24	Physiological prediction of masking release for normal-hearing and hearing-impaired listeners. Proceedings of Meetings on Acoustics, 2013, , .	0.3	6
25	An investigation of dendritic delay in octopus cells of the mammalian cochlear nucleus. Frontiers in Computational Neuroscience, 2012, 6, 83.	2.1	13
26	Can homeostatic plasticity in deafferented primary auditory cortex lead to travelling waves of excitation?. Journal of Computational Neuroscience, 2011, 30, 279-299.	1.0	38
27	Effects of Peripheral Tuning on the Auditory Nerveâ€™s Representation of Speech Envelope and Temporal Fine Structure Cues. , 2010, , 429-438.		28
28	A phenomenological model of the synapse between the inner hair cell and auditory nerve: Long-term adaptation with power-law dynamics. Journal of the Acoustical Society of America, 2009, 126, 2390-2412.	1.1	291
29	Evaluation of Stochastic Differential Equation Approximation of Ion Channel Gating Models. Annals of Biomedical Engineering, 2009, 37, 824-838.	2.5	35
30	Hearing aid gain prescriptions balance restoration of auditory nerve mean-rate and spike-timing representations of speech. , 2008, 2008, 1793-6.		4
31	Effects of an improved auditory-periphery model on the response properties of modeled neurons in the Dorsal Cochlear Nucleus. , 2008, 2008, 2477-80.		0
32	Effects of I<inf>h</inf> and I<inf>KLT</inf> on the response of the auditory nerve to electrical stimulation in a stochastic Hodgkin-Huxley model. , 2008, 2008, 5539-42.		10
33	Representation of the vowel /Îµ/ in normal and impaired auditory nerve fibers: Model predictions of responses in cats. Journal of the Acoustical Society of America, 2007, 122, 402-417.	1.1	112
34	Evaluation of approximate stochastic Hodgkin-Huxley models. , 2007, , .		0
35	Predictions of Speech Intelligibility with a Model of the Normal and Impaired Auditory-periphery. , 2007, , .		18
36	Implementation Issues in Approximate Methods for Stochastic Hodgkinâ€“Huxley Models. Annals of Biomedical Engineering, 2007, 35, 315-318.	2.5	31

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37	Modeling auditory-nerve responses for high sound pressure levels in the normal and impaired auditory periphery. Journal of the Acoustical Society of America, 2006, 120, 1446-1466.	1.1	185
38	A Novel Model-Based Hearing Compensation Design Using a Gradient-Free Optimization Method. Neural Computation, 2005, 17, 2648-2671.	2.2	9
39	Physiological assessment of contrast-enhancing frequency shaping and multiband compression in hearing aids. Physiological Measurement, 2004, 25, 945-956.	2.1	16
40	An auditory-periphery model of the effects of acoustic trauma on auditory nerve responses. Journal of the Acoustical Society of America, 2003, 113, 369-388.	1.1	118
41	Lateral-inhibitory-network models of tinnitus. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 359-363.	0.4	10
42	Biological Basis of Hearing-Aid Design. Annals of Biomedical Engineering, 2002, 30, 157-168.	2.5	28
43	Auditory nerve model for predicting performance limits of normal and impaired listeners. Acoustics Research Letters Online: ARLO, 2001, 2, 91-96.	0.7	126
44	A phenomenological model for the responses of auditory-nerve fibers: I. Nonlinear tuning with compression and suppression. Journal of the Acoustical Society of America, 2001, 109, 648-670.	1.1	303
45	Renewal-process approximation of a stochastic threshold model for electrical neural stimulation. Journal of Computational Neuroscience, 2000, 9, 119-132.	1.0	15