Michael G Heinz

List of Publications by Year
in descending order

51 papers	2,608 citations	201674 27 h-index	206112 48 g-index
64 all docs	64 docs citations	64 times ranked	1429 citing authors

#	Article	IF	Citations
1	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
2	Effects of noise exposure on young adults with normal audiograms I: Electrophysiology. Hearing Research, 2017, 344, 68-81.	2.0	176
3	Evaluating Auditory Performance Limits: I. One-Parameter Discrimination Using a Computational Model for the Auditory Nerve. Neural Computation, 2001, 13, 2273-2316.	2.2	169
4	Auditory nerve model for predicting performance limits of normal and impaired listeners. Acoustics Research Letters Online: ARLO, 2001, 2, 91-96.	0.7	126
5	Translational issues in cochlear synaptopathy. Hearing Research, 2017, 349, 164-171.	2.0	118
6	Envelope Coding in Auditory Nerve Fibers Following Noise-Induced Hearing Loss. JARO - Journal of the Association for Research in Otolaryngology, 2010, 11, 657-673.	1.8	115
7	Response Growth With Sound Level in Auditory-Nerve Fibers After Noise-Induced Hearing Loss. Journal of Neurophysiology, 2004, 91, 784-795.	1.8	114
8	Effects of noise exposure on young adults with normal audiograms II: Behavioral measures. Hearing Research, 2017, 356, 74-86.	2.0	93
9	Diminished temporal coding with sensorineural hearing loss emerges in background noise. Nature Neuroscience, 2012, 15, 1362-1364.	14.8	90
10	Non-Invasive Assays of Cochlear Synaptopathy â€“ Candidates and Considerations. Neuroscience, 2019, 407, 53-66.	2.3	81
11	Psychophysiological Analyses Demonstrate the Importance of Neural Envelope Coding for Speech Perception in Noise. Journal of Neuroscience, 2012, 32, 1747-1756.	3.6	80
12	Quantifying Envelope and Fine-Structure Coding in Auditory Nerve Responses to Chimaeric Speech. JARO - Journal of the Association for Research in Otolaryngology, 2009, 10, 407-423.	1.8	76
13	A murine model of neurofibromatosis type 2 that accurately phenocopies human schwannoma formation. Human Molecular Genetics, 2015, 24, 1-8.	2.9	76
14	The upper frequency limit for the use of phase locking to code temporal fine structure in humans: A compilation of viewpoints. Hearing Research, 2019, 377, 109-121.	2.0	76
15	Auditory-Nerve Rate Responses are Inconsistent with Common Hypotheses for the Neural Correlates of Loudness Recruitment. JARO - Journal of the Association for Research in Otolaryngology, 2005, 6, 91-105.	1.8	74
16	Sensorineural hearing loss amplifies neural coding of envelope information in the central auditory system of chinchillas. Hearing Research, 2014, 309, 55-62.	2.0	67
17	Rate and timing cues associated with the cochlear amplifier: Level discrimination based on monaural cross-frequency coincidence detection. Journal of the Acoustical Society of America, 2001, 110, 2065-2084.	1.1	65
18	Quantifying the Information in Auditory-Nerve Responses for Level Discrimination. JARO - Journal of the Association for Research in Otolaryngology, 2003, 4, 294-311.	1.8	56

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19	Evaluating Adaptation and Olivocochlear Efferent Feedback as Potential Explanations of Psychophysical Overshoot. JARO - Journal of the Association for Research in Otolaryngology, 2011, 12, 345-360.	1.8	46
20	Distorted Tonotopic Coding of Temporal Envelope and Fine Structure with Noise-Induced Hearing Loss. Journal of Neuroscience, 2016, 36, 2227-2237.	3.6	43
21	Noise-induced hearing loss alters the temporal dynamics of auditory-nerve responses. Hearing Research, 2010, 269, 23-33.	2.0	41
22	Effects of sensorineural hearing loss on temporal coding of narrowband andÂbroadband signals in the auditory periphery. Hearing Research, 2013, 303, 39-47.	2.0	41
23	Noise-induced hearing loss increases the temporal precision of complex envelope coding by auditory-nerve fibers. Frontiers in Systems Neuroscience, 2014, 8, 20.	2.5	40
24	Quantifying the implications of nonlinear cochlear tuning for auditory-filter estimates. Journal of the Acoustical Society of America, 2002, 111, 996-1011.	1.1	38
25	The chinchilla animal model for hearing science and noise-induced hearing loss. Journal of the Acoustical Society of America, 2019, 146, 3710-3732.	1.1	36
26	Auditory brainstem responses predict auditory nerve fiber thresholds and frequency selectivity in hearing impaired chinchillas. Hearing Research, 2011, 280, 236-244.	2.0	34
27	Modeling the Anti-masking Effects of the Olivocochlear Reflex in Auditory Nerve Responses to Tones in Sustained Noise. JARO - Journal of the Association for Research in Otolaryngology, 2012, 13, 219-235.	1.8	30
28	Temporal modulation transfer functions measured from auditory-nerve responses following sensorineural hearing loss. Hearing Research, 2012, 286, 64-75.	2.0	25
29	Optimal Combination of Neural Temporal Envelope and Fine Structure Cues to Explain Speech Identification in Background Noise. Journal of Neuroscience, 2014, 34, 12145-12154.	3.6	25
30	Divergent Auditory Nerve Encoding Deficits Between Two Common Etiologies of Sensorineural Hearing Loss. Journal of Neuroscience, 2019, 39, 6879-6887.	3.6	23
31	Modeling the Time-Varying and Level-Dependent Effects of the Medial Olivocochlear Reflex in Auditory Nerve Responses. JARO - Journal of the Association for Research in Otolaryngology, 2014, 15, 159-173.	1.8	21
32	Predicted effects of sensorineural hearing loss on across-fiber envelope coding in the auditory nerve. Journal of the Acoustical Society of America, 2011, 129, 4001-4013.	1.1	20
33	The use of confusion patterns to evaluate the neural basis for concurrent vowel identification. Journal of the Acoustical Society of America, 2013, 134, 2988-3000.	1.1	19
34	Effect of auditory-nerve response variability on estimates of tuning curves. Journal of the Acoustical Society of America, 2007, 122, EL203-EL209.	1.1	18
35	Across-Fiber Coding of Temporal Fine-Structure: Effects of Noise-Induced Hearing Loss on Auditory-Nerve Responses. , 2010, , 621-630.		16
36	Modulation masking and fine structure shape neural envelope coding to predict speech intelligibility across diverse listening conditions. Journal of the Acoustical Society of America, 2021, 150, 2230-2244.	1.1	14

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37	Computational Modeling of Sensorineural Hearing Loss. Springer Handbook of Auditory Research, 2010, , 177-202.	0.7	14
38	Effects of age on sensitivity to interaural time differences in envelope and fine structure, individually and in combination. Journal of the Acoustical Society of America, 2018, 143, 1287-1296.	1.1	12
39	Implications of Within-Fiber Temporal Coding for Perceptual Studies of F0 Discrimination and Discrimination of Harmonic and Inharmonic Tone Complexes. JARO - Journal of the Association for Research in Otolaryngology, 2014, 15, 465-482.	1.8	11
40	Distorted Tonotopy Severely Degrades Neural Representations of Connected Speech in Noise following Acoustic Trauma. Journal of Neuroscience, 2022, 42, 1477-1490.	3.6	11
41	Spectrally specific temporal analyses of spike-train responses to complex sounds: A unifying framework. PLoS Computational Biology, 2021, 17, e1008155.	3.2	9
42	Speech Categorization Reveals the Role of Early-Stage Temporal-Coherence Processing in Auditory Scene Analysis. Journal of Neuroscience, 2022, 42, 240-254.	3.6	9
43	Noninvasive Measures of Distorted Tonotopic Speech Coding Following Noise-Induced Hearing Loss. JARO - Journal of the Association for Research in Otolaryngology, 2021, 22, 51-66.	1.8	8
44	Spatiotemporal Encoding of Vowels in Noise Studied with the Responses of Individual Auditory-Nerve Fibers. , 2007, , 107-115.		7
45	Temporal fine structure influences voicing confusions for consonant identification in multi-talker babble. Journal of the Acoustical Society of America, 2021, 150, 2664-2676.	1.1	7
46	Neural Spike-Train Analyses of the Speech-Based Envelope Power Spectrum Model. Trends in Hearing, 2016, 20, 233121651666731.	1.3	6
47	Afferent Coding and Efferent Control in the Normal and Impaired Cochlea. Springer Handbook of Auditory Research, 2017, , 215-252.	0.7	6
48	Effects of Sensorineural Hearing Loss on Temporal Coding of Harmonic and Inharmonic Tone Complexes in the Auditory Nerve. Advances in Experimental Medicine and Biology, 2013, 787, 109-118.	1.6	2
49	Suppression Measured from Chinchilla Auditory-Nerve-Fiber Responses Following Noise-Induced Hearing Loss: Adaptive-Tracking and Systems-Identification Approaches. Advances in Experimental Medicine and Biology, 2016, 894, 285-295.	1.6	2
50	Modeling the effects of age and hearing loss on concurrent vowel scores. Journal of the Acoustical Society of America, 2021, 150, 3581-3592.	1.1	2
51	Correlations between noninvasive and direct physiological metrics of auditory function in chinchillas with noise-induced hearing loss. Proceedings of Meetings on Acoustics, 2013, , .	0.3	1