Peter Heil

List of Publications by Year
in descending order

80 papers	4,432 citations	109321 35 h-index	106344 65 g-index
103 all docs	103 docs citations	103 times ranked	2331 citing authors

#	Article	IF	Citations
1	Auditory-Nerve Response, Afferent Signals. , 2022, , 328-330.		0
2	Comparing and modeling absolute auditory thresholds in an alternative-forced-choice and a yes-no procedure. Hearing Research, 2021, 403, 108164.	2.0	5
3	A simplified physiological model of rate-level functions of auditory-nerve fibers. Hearing Research, 2021, 406, 108258.	2.0	4
4	Towards a unifying basis of auditory thresholds: Thresholds for multicomponent stimuli. Hearing Research, 2021, 410, 108349.	2.0	2
5	Absolute auditory threshold: testing the absolute. European Journal of Neuroscience, 2020, 51, 1224-1233.	2.6	6
6	Phase Locking of Auditory Nerve Fibers: The Role of Lowpass Filtering by Hair Cells. Journal of Neuroscience, 2020, 40, 4700-4714.	3.6	18
7	Inconsistent effects of stochastic resonance on human auditory processing. Scientific Reports, 2020, 10, 6419.	3.3	9
8	Nelson's notch in the rate-level functions of auditory-nerve fibers might be caused by PIEZO2-mediated reverse-polarity currents in hair cells. Hearing Research, 2019, 381, 107783.	2.0	6
9	Phase Locking of Auditory-Nerve Fibers Reveals Stereotyped Distortions and an Exponential Transfer Function with a Level-Dependent Slope. Journal of Neuroscience, 2019, 39, 4077-4099.	3.6	14
10	Associations between sounds and actions in early auditory cortex of nonhuman primates. ELife, 2019, 8, .	6.0	36
11	Auditory-Nerve Response, Afferent Signals. , 2019, , 1-3.		0
12	A simple model of the inner-hair-cell ribbon synapse accounts for mammalian auditory-nerve-fiber spontaneous spike times. Hearing Research, 2018, 363, 1-27.	2.0	18
13	Recovery of auditory-nerve-fiber spike amplitude under natural excitation conditions. Hearing Research, 2018, 370, 248-263.	2.0	4
14	A probabilistic Poisson-based model accounts for an extensive set of absolute auditory threshold measurements. Hearing Research, 2017, 353, 135-161.	2.0	14
15	Spike timing in auditoryâ€nerve fibers during spontaneous activity and phase locking. Synapse, 2017, 71, 5-36.	1.2	36
16	Onset-Duration Matching of Acoustic Stimuli Revisited: Conventional Arithmetic vs. Proposed Geometric Measures of Accuracy and Precision. Frontiers in Psychology, 2016, 7, 2013.	2.1	7
17	Persistent neural activity in auditory cortex is related to auditory working memory in humans and nonhuman primates. ELife, 2016, 5, .	6.0	42
18	Decision making and ambiguity in auditory stream segregation. Frontiers in Neuroscience, 2015, 9, 266.	2.8	6

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19	Basic response properties of auditory nerve fibers: a review. Cell and Tissue Research, 2015, 361, 129-158.	2.9	88
20	Auditory cortex 2014 â€“ towards a synthesis of human and animal research. European Journal of Neuroscience, 2015, 41, 515-517.	2.6	1
21	Averaging auditory evoked magnetoencephalographic and electroencephalographic responses: a critical discussion. European Journal of Neuroscience, 2015, 41, 631-640.	2.6	11
22	Towards a Unifying Basis of Auditory Thresholds: Binaural Summation. JARO - Journal of the Association for Research in Otolaryngology, 2014, 15, 219-234.	1.8	21
23	A Model of Synaptic Vesicle-Pool Depletion and Replenishment Can Account for the Interspike Interval Distributions and Nonrenewal Properties of Spontaneous Spike Trains of Auditory-Nerve Fibers. Journal of Neuroscience, 2014, 34, 15097-15109.	3.6	37
24	Auditory Nerve Response, Afferent Signals. , 2014, , 1-3.		0
25	Why longer song elements are easier to detect: threshold level-duration functions in the Great Tit and comparison with human data. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2013, 199, 239-252.	1.6	26
26	Modelling detection thresholds for sounds repeated at different delays. Hearing Research, 2013, 296, 83-95.	2.0	12
27	A Probabilistic Model of Absolute Auditory Thresholds and Its Possible Physiological Basis. Advances in Experimental Medicine and Biology, 2013, 787, 21-29.	1.6	13
28	Variance stabilization for computing and comparing grand mean waveforms in <scp>MEG</scp> and <scp>EEG</scp>. Psychophysiology, 2013, 50, 627-639.	2.4	6
29	Detection of Near-Threshold Sounds is Independent of EEG Phase in Common Frequency Bands. Frontiers in Psychology, 2013, 4, 262.	2.1	81
30	Auditory Nerve Response, Afferent Signals. , 2013, , 1-3.		0
31	Stimulationâ€history effects on the <scp>M</scp>100 revealed by its differential dependence on the stimulus onset interval. Psychophysiology, 2012, 49, 909-919.	2.4	26
32	The Build-up of Auditory Stream Segregation: A Different Perspective. Frontiers in Psychology, 2012, 3, 461.	2.1	43
33	Auditory cortex â€“ Current concepts in human and animal research. Hearing Research, 2011, 271, 1-2.	2.0	6
34	The M100 component of evoked magnetic fields differs by scaling factors: Implications for signal averaging. Psychophysiology, 2011, 48, 1069-1082.	2.4	13
35	An Improved Model for the Rateâ€“Level Functions of Auditory-Nerve Fibers. Journal of Neuroscience, 2011, 31, 15424-15437.	3.6	50
36	Summing Across Different Active Zones can Explain the Quasi-Linear Ca2+-Dependencies of Exocytosis by Receptor Cells. Frontiers in Synaptic Neuroscience, 2010, 2, 148.	2.5	39

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37	Spontaneous Activity of Auditory Nerve Fibers in the Barn Owl (Tyto alba): Analyses of Interspike Interval Distributions. Journal of Neurophysiology, 2009, 101, 3169-3191.	1.8	14
38	A physiological model for the stimulus dependence of first-spike latency of auditory-nerve fibers. Brain Research, 2008, 1220, 208-223.	2.2	31
39	Effects of the task of categorizing FM direction on auditory evoked magnetic fields in the human auditory cortex. Brain Research, 2008, 1220, 102-117.	2.2	13
40	Towards a unifying basis of auditory thresholds: Distributions of the first-spike latencies of auditory-nerve fibers. Hearing Research, 2008, 238, 25-38.	2.0	46
41	Spontaneous Activity of Auditory-Nerve Fibers: Insights into Stochastic Processes at Ribbon Synapses. Journal of Neuroscience, 2007, 27, 8457-8474.	3.6	59
42	Multisensory processing via early cortical stages: Connections of the primary auditory cortical field with other sensory systems. Neuroscience, 2006, 143, 1065-1083.	2.3	268
43	Comparison of Absolute Thresholds Derived from an Adaptive Forced-Choice Procedure and from Reaction Probabilities and Reaction Times in a Simple Reaction Time Paradigm. JARO - Journal of the Association for Research in Otolaryngology, 2006, 7, 279-298.	1.8	24
44	Correcting for false alarms in a simple reaction time task. Brain Research, 2006, 1122, 99-115.	2.2	11
45	Auditory thresholds re-visited. , 2005, , 453-469.		1
46	First-spike latency of auditory neurons revisited. Current Opinion in Neurobiology, 2004, 14, 461-467.	4.2	156
47	Towards a Unifying Basis of Auditory Thresholds: The Effects of Hearing Loss on Temporal Integration Reconsidered. JARO - Journal of the Association for Research in Otolaryngology, 2004, 5, 436-458.	1.8	29
48	Coding of temporal onset envelope in the auditory system. Speech Communication, 2003, 41, 123-134.	2.8	48
49	A unifying basis of auditory thresholds based on temporal summation. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 6151-6156.	7.1	122
50	Auditory activation of â€˜visualâ€™ cortical areas in the blind mole rat (Spalax ehrenbergi). European Journal of Neuroscience, 2002, 16, 311-329.	2.6	92
51	Temporal Integration of Sound Pressure Determines Thresholds of Auditory-Nerve Fibers. Journal of Neuroscience, 2001, 21, 7404-7415.	3.6	79
52	Representation of Sound Onsets in the Auditory System. Audiology and Neuro-Otology, 2001, 6, 167-172.	1.3	24
53	Functional organization of auditory cortex in the Mongolian gerbil (Meriones unguiculatus). III. Anatomical subdivisions and corticocortical connections. European Journal of Neuroscience, 2000, 12, 2425-2451.	2.6	133
54	Functional organization of auditory cortex in the Mongolian gerbil (Meriones unguiculatus). IV. Connections with anatomically characterized subcortical structures. European Journal of Neuroscience, 2000, 12, 2452-2474.	2.6	117

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55	Parallels Between Timing of Onset Responses of Single Neurons in Cat and of Evoked Magnetic Fields in Human Auditory Cortex. Journal of Neurophysiology, 2000, 84, 2426-2439.	1.8	76
56	New Insights into the Hemodynamic Blood Oxygenation Level-Dependent Response through Combination of Functional Magnetic Resonance Imaging and Optical Recording in Gerbil Barrel Cortex. Journal of Neuroscience, 2000, 20, 3328-3338.	3.6	100
57	Neuronal coding of interaural transient envelope disparities. European Journal of Neuroscience, 1998, 10, 2831-2847.	2.6	17
58	Further observations on the threshold model of latency for auditory neurons. Behavioural Brain Research, 1998, 95, 233-236.	2.2	11
59	Functional Specialization in Auditory Cortex: Responses to Frequency-Modulated Stimuli in the Cat's Posterior Auditory Field. Journal of Neurophysiology, 1998, 79, 3041-3059.	1.8	65
60	Aspects of Temporal Processing of FM Stimuli in Primary Auditory Cortex. Acta Oto-Laryngologica, 1997, 117, 99-102.	0.9	12
61	First-Spike Timing of Auditory-Nerve Fibers and Comparison With Auditory Cortex. Journal of Neurophysiology, 1997, 78, 2438-2454.	1.8	151
62	Auditory Cortical Onset Responses Revisited. II. Response Strength. Journal of Neurophysiology, 1997, 77, 2642-2660.	1.8	131
63	Auditory Cortical Onset Responses Revisited. I. First-Spike Timing. Journal of Neurophysiology, 1997, 77, 2616-2641.	1.8	213
64	Frequency and periodicity are represented in orthogonal maps in the human auditory cortex: evidence from magnetoencephalography. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1997, 181, 665-676.	1.6	176
65	On determinants of first-spike latency in auditory cortex. NeuroReport, 1996, 7, 3073-3076.	1.2	45
66	Topographic representation of tone intensity along the isofrequency axis of cat primary auditory cortex. Hearing Research, 1994, 76, 188-202.	2.0	122
67	Effect of unilateral partial cochlear lesions in adult cats on the representation of lesioned and unlesioned cochleas in primary auditory cortex. Journal of Comparative Neurology, 1993, 338, 17-49.	1.6	360
68	Functional Organization of Auditory Cortex in the Mongolian Gerbil (Meriones unguiculatus). I. Electrophysiological Mapping of Frequency Representation and Distinction of Fields. European Journal of Neuroscience, 1993, 5, 882-897.	2.6	152
69	Functional Organization of Auditory Cortex in the Mongolian Gerbil (Meriones unguiculatus) II. Tonotopic 2-Deoxyglucose. European Journal of Neuroscience, 1993, 5, 898-914.	2.6	75
70	POSTNATAL SHIFT OF TONOTOPIC ORGANIZATION IN THE CHICK AUDITORY CORTEX ANALOGUE. NeuroReport, 1992, 3, 381-384.	1.2	8
71	Sensitivity of neurons in cat primary auditory cortex to tones and frequency-modulated stimuli. II: Organization of response properties along the â€˜isofrequencyâ€™ dimension. Hearing Research, 1992, 63, 135-156.	2.0	128
72	Sensitivity of neurons in cat primary auditory cortex to tones and frequency-modulated stimuli. I: Effects of variation of stimulus parameters. Hearing Research, 1992, 63, 108-134.	2.0	143

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73	Processing of frequency-modulated stimuli in the chick auditory cortex analogue: evidence for topographic representations and possible mechanisms of rate and directional sensitivity. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1992, 171, 583-600.	1.6	71
74	Spatial representation of frequency-modulated signals in the tonotopically organized auditory cortex analogue of the chick. Journal of Comparative Neurology, 1992, 322, 548-565.	1.6	32
75	Functional organization of the avian auditory cortex analogue. I. Topographic representation of isointensity bandwidth. Brain Research, 1991, 539, 110-120.	2.2	47
76	Functional organization of the avian auditory cortex analogue. II. Topographic distribution of latency. Brain Research, 1991, 539, 121-125.	2.2	30
77	Invasion of visual cortex by the auditory system in the naturally blind mole rat. NeuroReport, 1991, 2, 735-738.	1.2	128
78	Auditory pathway and auditory activation of primary visual targets in the blind mole rat (Spalax) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 54 284, 253-274.	1.6	97
79	Different Binaural Inputs Subdividing Isofrequency Planes in Chick Inferior Colliculus: Evidence from 2-Deoxyglucose. , 1988, , 185-190.		1
80	Effects of unilateral and bilateral cochlea removal on 2-deoxyglucose patterns in the chick auditory system. Journal of Comparative Neurology, 1986, 252, 279-301.	1.6	69