

# Peter Heil

## List of Publications by Year in descending order

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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	Effect of unilateral partial cochlear lesions in adult cats on the representation of lesioned and unlesioned cochleas in primary auditory cortex. <i>Journal of Comparative Neurology</i> , 1993, 338, 17-49.	1.6	360
2	Multisensory processing via early cortical stages: Connections of the primary auditory cortical field with other sensory systems. <i>Neuroscience</i> , 2006, 143, 1065-1083.	2.3	268
3	Auditory Cortical Onset Responses Revisited. I. First-Spike Timing. <i>Journal of Neurophysiology</i> , 1997, 77, 2616-2641.	1.8	213
4	Frequency and periodicity are represented in orthogonal maps in the human auditory cortex: evidence from magnetoencephalography. <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 1997, 181, 665-676.	1.6	176
5	First-spike latency of auditory neurons revisited. <i>Current Opinion in Neurobiology</i> , 2004, 14, 461-467.	4.2	156
6	Functional Organization of Auditory Cortex in the Mongolian Gerbil ( <i>Meriones unguiculatus</i> ). I. Electrophysiological Mapping of Frequency Representation and Distinction of Fields. <i>European Journal of Neuroscience</i> , 1993, 5, 882-897.	2.6	152
7	First-Spike Timing of Auditory-Nerve Fibers and Comparison With Auditory Cortex. <i>Journal of Neurophysiology</i> , 1997, 78, 2438-2454.	1.8	151
8	Sensitivity of neurons in cat primary auditory cortex to tones and frequency-modulated stimuli. I: Effects of variation of stimulus parameters. <i>Hearing Research</i> , 1992, 63, 108-134.	2.0	143
9	Functional organization of auditory cortex in the Mongolian gerbil ( <i>Meriones unguiculatus</i> ). III. Anatomical subdivisions and corticocortical connections. <i>European Journal of Neuroscience</i> , 2000, 12, 2425-2451.	2.6	133
10	Auditory Cortical Onset Responses Revisited. II. Response Strength. <i>Journal of Neurophysiology</i> , 1997, 77, 2642-2660.	1.8	131
11	Invasion of visual cortex by the auditory system in the naturally blind mole rat. <i>NeuroReport</i> , 1991, 2, 735-738.	1.2	128
12	Sensitivity of neurons in cat primary auditory cortex to tones and frequency-modulated stimuli. II: Organization of response properties along the "isofrequency" dimension. <i>Hearing Research</i> , 1992, 63, 135-156.	2.0	128
13	Topographic representation of tone intensity along the isofrequency axis of cat primary auditory cortex. <i>Hearing Research</i> , 1994, 76, 188-202.	2.0	122
14	A unifying basis of auditory thresholds based on temporal summation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 6151-6156.	7.1	122
15	Functional organization of auditory cortex in the Mongolian gerbil ( <i>Meriones unguiculatus</i> ). IV. Connections with anatomically characterized subcortical structures. <i>European Journal of Neuroscience</i> , 2000, 12, 2452-2474.	2.6	117
16	New Insights into the Hemodynamic Blood Oxygenation Level-Dependent Response through Combination of Functional Magnetic Resonance Imaging and Optical Recording in Gerbil Barrel Cortex. <i>Journal of Neuroscience</i> , 2000, 20, 3328-3338.	3.6	100
17	Auditory pathway and auditory activation of primary visual targets in the blind mole rat ( <i>Spalax</i> ). <i>Journal of Neuroscience</i> , 2002, 22, 284, 253-274.	1.6	97
18	Auditory activation of "visual" cortical areas in the blind mole rat ( <i>Spalax ehrenbergi</i> ). <i>European Journal of Neuroscience</i> , 2002, 16, 311-329.	2.6	92

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19	Basic response properties of auditory nerve fibers: a review. <i>Cell and Tissue Research</i> , 2015, 361, 129-158.	2.9	88
20	Detection of Near-Threshold Sounds is Independent of EEG Phase in Common Frequency Bands. <i>Frontiers in Psychology</i> , 2013, 4, 262.	2.1	81
21	Temporal Integration of Sound Pressure Determines Thresholds of Auditory-Nerve Fibers. <i>Journal of Neuroscience</i> , 2001, 21, 7404-7415.	3.6	79
22	Parallels Between Timing of Onset Responses of Single Neurons in Cat and of Evoked Magnetic Fields in Human Auditory Cortex. <i>Journal of Neurophysiology</i> , 2000, 84, 2426-2439.	1.8	76
23	Functional Organization of Auditory Cortex in the Mongolian Gerbil ( <i>Meriones unguiculatus</i> ) II. Tonotopic 2-Deoxyglucose. <i>European Journal of Neuroscience</i> , 1993, 5, 898-914.	2.6	75
24	Processing of frequency-modulated stimuli in the chick auditory cortex analogue: evidence for topographic representations and possible mechanisms of rate and directional sensitivity. <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 1992, 171, 583-600.	1.6	71
25	Effects of unilateral and bilateral cochlea removal on 2-deoxyglucose patterns in the chick auditory system. <i>Journal of Comparative Neurology</i> , 1986, 252, 279-301.	1.6	69
26	Functional Specialization in Auditory Cortex: Responses to Frequency-Modulated Stimuli in the Cat's Posterior Auditory Field. <i>Journal of Neurophysiology</i> , 1998, 79, 3041-3059.	1.8	65
27	Spontaneous Activity of Auditory-Nerve Fibers: Insights into Stochastic Processes at Ribbon Synapses. <i>Journal of Neuroscience</i> , 2007, 27, 8457-8474.	3.6	59
28	An Improved Model for the Rate-Dependent Level Functions of Auditory-Nerve Fibers. <i>Journal of Neuroscience</i> , 2011, 31, 15424-15437.	3.6	50
29	Coding of temporal onset envelope in the auditory system. <i>Speech Communication</i> , 2003, 41, 123-134.	2.8	48
30	Functional organization of the avian auditory cortex analogue. I. Topographic representation of isointensity bandwidth. <i>Brain Research</i> , 1991, 539, 110-120.	2.2	47
31	Towards a unifying basis of auditory thresholds: Distributions of the first-spike latencies of auditory-nerve fibers. <i>Hearing Research</i> , 2008, 238, 25-38.	2.0	46
32	On determinants of first-spike latency in auditory cortex. <i>NeuroReport</i> , 1996, 7, 3073-3076.	1.2	45
33	The Build-up of Auditory Stream Segregation: A Different Perspective. <i>Frontiers in Psychology</i> , 2012, 3, 461.	2.1	43
34	Persistent neural activity in auditory cortex is related to auditory working memory in humans and nonhuman primates. <i>ELife</i> , 2016, 5, .	6.0	42
35	Summing Across Different Active Zones can Explain the Quasi-Linear Ca <sup>2+</sup> -Dependencies of Exocytosis by Receptor Cells. <i>Frontiers in Synaptic Neuroscience</i> , 2010, 2, 148.	2.5	39
36	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. <i>Journal of Neuroscience</i> , 2014, 34, 15097-15109.	3.6	37

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37	Spike timing in auditory nerve fibers during spontaneous activity and phase locking. <i>Synapse</i> , 2017, 71, 5-36.	1.2	36
38	Associations between sounds and actions in early auditory cortex of nonhuman primates. <i>ELife</i> , 2019, 8, .	6.0	36
39	Spatial representation of frequency-modulated signals in the tonotopically organized auditory cortex analogue of the chick. <i>Journal of Comparative Neurology</i> , 1992, 322, 548-565.	1.6	32
40	A physiological model for the stimulus dependence of first-spike latency of auditory-nerve fibers. <i>Brain Research</i> , 2008, 1220, 208-223.	2.2	31
41	Functional organization of the avian auditory cortex analogue. II. Topographic distribution of latency. <i>Brain Research</i> , 1991, 539, 121-125.	2.2	30
42	Towards a Unifying Basis of Auditory Thresholds: The Effects of Hearing Loss on Temporal Integration Reconsidered. <i>JARO - Journal of the Association for Research in Otolaryngology</i> , 2004, 5, 436-458.	1.8	29
43	Stimulation history effects on the <math>M_{100}</math> revealed by its differential dependence on the stimulus onset interval. <i>Psychophysiology</i> , 2012, 49, 909-919.	2.4	26
44	Why longer song elements are easier to detect: threshold level-duration functions in the Great Tit and comparison with human data. <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 2013, 199, 239-252.	1.6	26
45	Representation of Sound Onsets in the Auditory System. <i>Audiology and Neuro-Otology</i> , 2001, 6, 167-172.	1.3	24
46	Comparison of Absolute Thresholds Derived from an Adaptive Forced-Choice Procedure and from Reaction Probabilities and Reaction Times in a Simple Reaction Time Paradigm. <i>JARO - Journal of the Association for Research in Otolaryngology</i> , 2006, 7, 279-298.	1.8	24
47	Towards a Unifying Basis of Auditory Thresholds: Binaural Summation. <i>JARO - Journal of the Association for Research in Otolaryngology</i> , 2014, 15, 219-234.	1.8	21
48	A simple model of the inner-hair-cell ribbon synapse accounts for mammalian auditory-nerve-fiber spontaneous spike times. <i>Hearing Research</i> , 2018, 363, 1-27.	2.0	18
49	Phase Locking of Auditory Nerve Fibers: The Role of Lowpass Filtering by Hair Cells. <i>Journal of Neuroscience</i> , 2020, 40, 4700-4714.	3.6	18
50	Neuronal coding of interaural transient envelope disparities. <i>European Journal of Neuroscience</i> , 1998, 10, 2831-2847.	2.6	17
51	Spontaneous Activity of Auditory Nerve Fibers in the Barn Owl ( <i>Tyto alba</i> ): Analyses of Interspike Interval Distributions. <i>Journal of Neurophysiology</i> , 2009, 101, 3169-3191.	1.8	14
52	A probabilistic Poisson-based model accounts for an extensive set of absolute auditory threshold measurements. <i>Hearing Research</i> , 2017, 353, 135-161.	2.0	14
53	Phase Locking of Auditory-Nerve Fibers Reveals Stereotyped Distortions and an Exponential Transfer Function with a Level-Dependent Slope. <i>Journal of Neuroscience</i> , 2019, 39, 4077-4099.	3.6	14
54	Effects of the task of categorizing FM direction on auditory evoked magnetic fields in the human auditory cortex. <i>Brain Research</i> , 2008, 1220, 102-117.	2.2	13

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55	The M100 component of evoked magnetic fields differs by scaling factors: Implications for signal averaging. <i>Psychophysiology</i> , 2011, 48, 1069-1082.	2.4	13
56	A Probabilistic Model of Absolute Auditory Thresholds and Its Possible Physiological Basis. <i>Advances in Experimental Medicine and Biology</i> , 2013, 787, 21-29.	1.6	13
57	Aspects of Temporal Processing of FM Stimuli in Primary Auditory Cortex. <i>Acta Oto-Laryngologica</i> , 1997, 117, 99-102.	0.9	12
58	Modelling detection thresholds for sounds repeated at different delays. <i>Hearing Research</i> , 2013, 296, 83-95.	2.0	12
59	Further observations on the threshold model of latency for auditory neurons. <i>Behavioural Brain Research</i> , 1998, 95, 233-236.	2.2	11
60	Correcting for false alarms in a simple reaction time task. <i>Brain Research</i> , 2006, 1122, 99-115.	2.2	11
61	Averaging auditory evoked magnetoencephalographic and electroencephalographic responses: a critical discussion. <i>European Journal of Neuroscience</i> , 2015, 41, 631-640.	2.6	11
62	Inconsistent effects of stochastic resonance on human auditory processing. <i>Scientific Reports</i> , 2020, 10, 6419.	3.3	9
63	POSTNATAL SHIFT OF TONOTOPIC ORGANIZATION IN THE CHICK AUDITORY CORTEX ANALOGUE. <i>NeuroReport</i> , 1992, 3, 381-384.	1.2	8
64	Onset-Duration Matching of Acoustic Stimuli Revisited: Conventional Arithmetic vs. Proposed Geometric Measures of Accuracy and Precision. <i>Frontiers in Psychology</i> , 2016, 7, 2013.	2.1	7
65	Auditory cortex – Current concepts in human and animal research. <i>Hearing Research</i> , 2011, 271, 1-2.	2.0	6
66	Variance stabilization for computing and comparing grand mean waveforms in MEG and EEG. <i>Psychophysiology</i> , 2013, 50, 627-639.	2.4	6
67	Decision making and ambiguity in auditory stream segregation. <i>Frontiers in Neuroscience</i> , 2015, 9, 266.	2.8	6
68	Nelson's notch in the rate-level functions of auditory-nerve fibers might be caused by PIEZO2-mediated reverse-polarity currents in hair cells. <i>Hearing Research</i> , 2019, 381, 107783.	2.0	6
69	Absolute auditory threshold: testing the absolute. <i>European Journal of Neuroscience</i> , 2020, 51, 1224-1233.	2.6	6
70	Comparing and modeling absolute auditory thresholds in an alternative-forced-choice and a yes-no procedure. <i>Hearing Research</i> , 2021, 403, 108164.	2.0	5
71	Recovery of auditory-nerve-fiber spike amplitude under natural excitation conditions. <i>Hearing Research</i> , 2018, 370, 248-263.	2.0	4
72	A simplified physiological model of rate-level functions of auditory-nerve fibers. <i>Hearing Research</i> , 2021, 406, 108258.	2.0	4

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73	Towards a unifying basis of auditory thresholds: Thresholds for multicomponent stimuli. Hearing Research, 2021, 410, 108349.	2.0	2
74	Auditory cortex 2014 " towards a synthesis of human and animal research. European Journal of Neuroscience, 2015, 41, 515-517.	2.6	1
75	Auditory thresholds re-visited. , 2005, , 453-469.		1
76	Different Binaural Inputs Subdividing Isofrequency Planes in Chick Inferior Colliculus: Evidence from 2-Deoxyglucose. , 1988, , 185-190.		1
77	Auditory Nerve Response, Afferent Signals. , 2013, , 1-3.		0
78	Auditory Nerve Response, Afferent Signals. , 2014, , 1-3.		0
79	Auditory-Nerve Response, Afferent Signals. , 2019, , 1-3.		0
80	Auditory-Nerve Response, Afferent Signals. , 2022, , 328-330.		0