

# Christine Käppel

## List of Publications by Year in descending order

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87  
papers

2,413  
citations

186265

28  
h-index

233421

45  
g-index

89  
all docs

89  
docs citations

89  
times ranked

971  
citing authors

#	ARTICLE	IF	CITATIONS
1	Phase Locking to High Frequencies in the Auditory Nerve and Cochlear Nucleus Magnocellularis of the Barn Owl, <i>Tyto alba</i> . Journal of Neuroscience, 1997, 17, 3312-3321.	3.6	286
2	Phylogenetic development of the cochlea and its innervation. Current Opinion in Neurobiology, 1998, 8, 468-474.	4.2	137
3	Frequency Tuning and Spontaneous Activity in the Auditory Nerve and Cochlear Nucleus Magnocellularis of the Barn Owl <i>Tyto alba</i> . Journal of Neurophysiology, 1997, 77, 364-377.	1.8	119
4	Maps of interaural time difference in the chicken's brainstem nucleus laminaris. Biological Cybernetics, 2008, 98, 541-559.	1.3	103
5	Auditory peripheral tuning: evidence for a simple resonance phenomenon in the lizard <i>Tiliqua</i> . Hearing Research, 1988, 33, 181-189.	2.0	78
6	The basilar papilla of the barn owl <i>Tyto alba</i> : A quantitative morphological SEM analysis. Hearing Research, 1988, 34, 87-101.	2.0	68
7	Computational Diversity in the Cochlear Nucleus Angularis of the Barn Owl. Journal of Neurophysiology, 2003, 89, 2313-2329.	1.8	65
8	Auditory nerve terminals in the cochlear nucleus magnocellularis: Differences between low and high frequencies. Journal of Comparative Neurology, 1994, 339, 438-446.	1.6	55
9	Spontaneous otoacoustic emissions in two gecko species, <i>Gekko gecko</i> and <i>Eublepharis macularius</i> . Journal of the Acoustical Society of America, 1996, 99, 1588-1603.	1.1	50
10	The Evolution of Central Pathways and Their Neural Processing Patterns. Springer Handbook of Auditory Research, 2004, , 289-359.	0.7	50
11	Birds " same thing, but different? Convergent evolution in the avian and mammalian auditory systems provides informative comparative models. Hearing Research, 2011, 273, 65-71.	2.0	50
12	Activity of primary auditory neurons in the cochlear ganglion of the emu <i>Dromaius novaehollandiae</i> : Spontaneous discharge, frequency tuning, and phase locking. Journal of the Acoustical Society of America, 1997, 101, 1560-1573.	1.1	49
13	Coding of Sound Pressure Level in the Barn Owl's Auditory Nerve. Journal of Neuroscience, 1999, 19, 9674-9686.	3.6	49
14	Low-frequency pathway in the barn owl's auditory brainstem. Journal of Comparative Neurology, 1997, 378, 265-282.	1.6	47
15	Evolution of sound localisation in land vertebrates. Current Biology, 2009, 19, R635-R639.	3.9	46
16	Spontaneous otoacoustic emissions in the bobtail lizard. I: General characteristics. Hearing Research, 1993, 71, 157-169.	2.0	45
17	Distortion-product otoacoustic emissions in the bobtail lizard. I: General characteristics. Journal of the Acoustical Society of America, 1993, 93, 2820-2833.	1.1	44
18	Reversed tonotopic map of the basilar papilla in <i>Gekko gecko</i> . Hearing Research, 1999, 131, 107-116.	2.0	44

#	ARTICLE	IF	CITATIONS
19	Evidence for an Auditory Fovea in the New Zealand Kiwi ( <i>Apteryx mantelli</i> ). <i>PLoS ONE</i> , 2011, 6, e23771.	2.5	42
20	Morphology of the basilar papilla of the bobtail lizard <i>Tiliqua rugosa</i> . <i>Hearing Research</i> , 1988, 35, 209-228.	2.0	40
21	Quantitative anatomical basis for a model of micromechanical frequency tuning in the Tokay gecko, <i>Gekko gecko</i> . <i>Hearing Research</i> , 1995, 82, 14-25.	2.0	40
22	Embryonic and posthatching development of the barn owl ( <i>Tyto alba</i> ): Reference data for age determination. <i>Developmental Dynamics</i> , 2005, 233, 1248-1260.	1.8	37
23	The aging cochlea: Towards unraveling the functional contributions of strial dysfunction and synaptopathy. <i>Hearing Research</i> , 2019, 376, 111-124.	2.0	33
24	What have lizard ears taught us about auditory physiology?. <i>Hearing Research</i> , 2008, 238, 3-11.	2.0	32
25	Peripheral auditory processing in the bobtail lizard <i>Tiliqua rugosa</i> . <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 1990, 167, 129-138.	1.6	30
26	Functional Consequences of Morphological Trends in the Evolution of Lizard Hearing Organs. , 1992, , 489-509.		30
27	Low density of membrane particles in auditory hair cells of lizards and birds suggests an absence of somatic motility. <i>Journal of Comparative Neurology</i> , 2004, 479, 149-155.	1.6	30
28	Peripheral auditory processing in the bobtail lizard <i>Tiliqua rugosa</i> . <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 1990, 167, 101-112.	1.6	29
29	Peripheral auditory processing in the bobtail lizard <i>Tiliqua rugosa</i> . <i>Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology</i> , 1990, 167, 89-99.	1.6	28
30	Salient features of otoacoustic emissions are common across tetrapod groups and suggest shared properties of generation mechanisms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 3362-3367.	7.1	28
31	Frequency representation in the emu basilar papilla. <i>Journal of the Acoustical Society of America</i> , 1997, 101, 1574-1584.	1.1	27
32	Hearing Organ Evolution and Specialization: Archosaurs. <i>Springer Handbook of Auditory Research</i> , 2004, , 224-255.	0.7	27
33	Rate-intensity functions in the emu auditory nerve. <i>Journal of the Acoustical Society of America</i> , 2000, 107, 2143-2154.	1.1	26
34	A quantitative study of cochlear afferent axons in birds. <i>Hearing Research</i> , 2000, 139, 123-143.	2.0	26
35	A Functional Perspective on the Evolution of the Cochlea. <i>Cold Spring Harbor Perspectives in Medicine</i> , 2019, 9, a033241.	6.2	25
36	Temporal Coding of Single Auditory Nerve Fibers Is Not Degraded in Aging Gerbils. <i>Journal of Neuroscience</i> , 2020, 40, 343-354.	3.6	25

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37	Evolution of the Octavolateral Efferent System. Springer Handbook of Auditory Research, 2011, , 217-259.	0.7	24
38	Fine structure of the basilar papilla of the emu: implications for the evolution of avian hair-cell types. Hearing Research, 1998, 126, 99-112.	2.0	23
39	Coding interaural time differences at low best frequencies in the barn owl. Journal of Physiology (Paris), 2004, 98, 99-112.	2.1	23
40	Evoked cochlear potentials in the barn owl. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2007, 193, 601-612.	1.6	23
41	Infrasonic hearing in birds: a review of audiometry and hypothesized structure–function relationships. Biological Reviews, 2020, 95, 1036-1054.	10.4	22
42	Peripheral auditory processing in the bobtail lizard <i>Tiliqua rugosa</i> . Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1990, 167, 113-127.	1.6	21
43	Molecular bases of K <sup>+</sup> secretory cells in the inner ear: shared and distinct features between birds and mammals. Scientific Reports, 2016, 6, 34203.	3.3	18
44	Concurrent gradients of ribbon volume and AMPA-receptor patch volume in cochlear afferent synapses on gerbil inner hair cells. Hearing Research, 2018, 364, 81-89.	2.0	18
45	Emergence of band-pass filtering through adaptive spiking in the owl's cochlear nucleus. Journal of Neurophysiology, 2014, 112, 430-445.	1.8	16
46	A functional circuit model of interaural time difference processing. Journal of Neurophysiology, 2014, 112, 2850-2864.	1.8	15
47	Change in the coding of interaural time difference along the tonotopic axis of the chicken nucleus laminaris. Frontiers in Neural Circuits, 2015, 9, 43.	2.8	15
48	Spontaneous Activity of Auditory Nerve Fibers in the Barn Owl ( <i>Tyto alba</i> ): Analyses of Interspike Interval Distributions. Journal of Neurophysiology, 2009, 101, 3169-3191.	1.8	14
49	Altered cochlear innervation in developing and mature naked and Damaraland mole rats. Journal of Comparative Neurology, 2019, 527, 2302-2316.	1.6	14
50	Volume gradients in inner hair cell-auditory nerve fiber pre- and postsynaptic proteins differ across mouse strains. Hearing Research, 2020, 390, 107933.	2.0	14
51	Prolonged maturation of cochlear function in the barn owl after hatching. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2007, 193, 613-624.	1.6	13
52	Barn owls have ageless ears. Proceedings of the Royal Society B: Biological Sciences, 2017, 284, 20171584.	2.6	13
53	Efferent innervation to the auditory basilar papilla of scincid lizards. Journal of Comparative Neurology, 2009, 516, 74-85.	1.6	12
54	In vivo Recordings from Low-Frequency Nucleus Laminaris in the Barn Owl. Brain, Behavior and Evolution, 2015, 85, 271-286.	1.7	12

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55	Binaural responses in the auditory midbrain of chicken ( <i>Gallus gallus</i> ). European Journal of Neuroscience, 2020, 51, 1290-1304.	2.6	11
56	Efferent axons in the avian auditory nerve. European Journal of Neuroscience, 2001, 13, 1889-1901.	2.6	10
57	Internally coupled middle ears enhance the range of interaural time differences heard by the chicken. Journal of Experimental Biology, 2019, 222, .	1.7	10
58	Inner-Ear Morphology of the New Zealand Kiwi ( <i>Apteryx mantelli</i> ) Suggests High-Frequency Specialization. JARO - Journal of the Association for Research in Otolaryngology, 2012, 13, 629-639.	1.8	9
59	The Binaural Interaction Component in Barn Owl ( <i>Tyto alba</i> ) Presents few Differences to Mammalian Data. JARO - Journal of the Association for Research in Otolaryngology, 2016, 17, 577-589.	1.8	8
60	The barn owls' Minimum Audible Angle. PLoS ONE, 2019, 14, e0220652.	2.5	8
61	Auditory Nerve Fiber Discrimination and Representation of Naturally-Spoken Vowels in Noise. ENeuro, 2022, 9, ENEURO.0474-21.2021.	1.9	8
62	Avian Hearing. , 2015, , 71-87.		7
63	Age-related decline in cochlear ribbon synapses and its relation to different metrics of auditory-nerve activity. Neurobiology of Aging, 2021, 108, 133-145.	3.1	7
64	Gas Anesthesia Impairs Peripheral Auditory Sensitivity in Barn Owls ( <i>Tyto alba</i> ). ENeuro, 2018, 5, ENEURO.0140-18.2018.	1.9	7
65	Infrasound as a Cue for Seabird Navigation. Frontiers in Ecology and Evolution, 2021, 9, .	2.2	7
66	Chickens have excellent sound localization ability. Journal of Experimental Biology, 2022, 225, .	1.7	7
67	Spontaneous Generation in Early Sensory Development. Focus on Spontaneous Discharge Patterns in Cochlear Spiral Ganglion Cells Before the Onset of Hearing in Cats. Journal of Neurophysiology, 2007, 98, 1843-1844.	1.8	6
68	Bilaterally-projecting efferent neurones to the basilar papilla in the barn owl and the chicken. Brain Research, 2003, 986, 124-131.	2.2	5
69	Auditory Neuroscience: How to Encode Microsecond Differences. Current Biology, 2012, 22, R56-R58.	3.9	5
70	Reverse Correlation Analysis of Auditory-Nerve Fiber Responses to Broadband Noise in a Bird, the Barn Owl. JARO - Journal of the Association for Research in Otolaryngology, 2015, 16, 101-119.	1.8	5
71	Auditory Brainstem Response Wave III is Correlated with Extracellular Field Potentials from Nucleus Laminaris of the Barn Owl. Acta Acustica United With Acustica, 2018, 104, 874-877.	0.8	5
72	Components of the 2f1-f2-Distortion Product in the Ear Canal of the Bobtail Lizard. Lecture Notes in Biomathematics, 1990, , 210-218.	0.3	5

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73	Suppression tuning of spontaneous otoacoustic emissions in the barn owl ( <i>Tyto alba</i> ). <i>Hearing Research</i> , 2020, 385, 107835.	2.0	4
74	Avian hearing. , 2022, , 159-177.		4
75	The Remarkable Ears of Geckos and Pygopods. <i>Springer Handbook of Auditory Research</i> , 2013, , 111-131.	0.7	2
76	Emu and Kiwi: The Ear and Hearing in Paleognathous Birds. <i>Springer Handbook of Auditory Research</i> , 2013, , 263-287.	0.7	2
77	Common substructure in otoacoustic emission spectra of land vertebrates. <i>AIP Conference Proceedings</i> , 2015, , .	0.4	2
78	Gene delivery to neurons in the auditory brainstem of barn owls using standard recombinant adeno-associated virus vectors. <i>Current Research in Neurobiology</i> , 2020, 1, 100001.	2.3	2
79	Unique Contributions from Comparative Auditory Research. <i>Springer Handbook of Auditory Research</i> , 2013, , 1-12.	0.7	1
80	Otoacoustic Emissions (Part II): A moderated discussion. <i>AIP Conference Proceedings</i> , 2015, , .	0.4	1
81	Otoacoustic interrelationships of the barn owl. <i>AIP Conference Proceedings</i> , 2015, , .	0.4	1
82	Developmental maturation of presynaptic ribbon numbers in chicken basilar papilla hair cells and its perturbation by long-term overexpression of <i>Wnt9a</i> . <i>Developmental Neurobiology</i> , 2021, 81, 817-832.	3.0	1
83	Strategies for Encoding ITD in the Chicken Nucleus Laminaris. , 2007, , 417-424.		1
84	Multidimensional stimulus encoding in the auditory nerve of the barn owl. <i>Journal of the Acoustical Society of America</i> , 2018, 144, 2116-2127.	1.1	0
85	INTENSITY CODING IN AUDITORY-NERVE FIBRES OF THE BARN OWL AND ITS RELATION TO COCHLEAR MECHANICS. , 2000, , .		0
86	BIG AND POWERFUL: A MODEL OF THE CONTRIBUTION OF BUNDLE MOTILITY TO MECHANICAL AMPLIFICATION IN HAIR CELLS OF THE BIRD BASILAR PAPERILLA. , 2009, , .		0
87	Immunolabeling and Counting Ribbon Synapses in Young Adult and Aged Gerbil Cochleae. <i>Journal of Visualized Experiments</i> , 2022, , .	0.3	0