

Benedikt Grothe

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1108930/publications.pdf>

Version: 2024-02-01

67
papers

4,872
citations

136950

32
h-index

110387

64
g-index

71
all docs

71
docs citations

71
times ranked

2458
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanisms of Sound Localization in Mammals. <i>Physiological Reviews</i> , 2010, 90, 983-1012.	28.8	745
2	Precise inhibition is essential for microsecond interaural time difference coding. <i>Nature</i> , 2002, 417, 543-547.	27.8	524
3	New roles for synaptic inhibition in sound localization. <i>Nature Reviews Neuroscience</i> , 2003, 4, 540-550.	10.2	299
4	Tuning of Ranvier node and internode properties in myelinated axons to adjust action potential timing. <i>Nature Communications</i> , 2015, 6, 8073.	12.8	228
5	Interaural Time Difference Processing in the Mammalian Medial Superior Olive: The Role of Glycinergic Inhibition. <i>Journal of Neuroscience</i> , 2008, 28, 6914-6925.	3.6	214
6	Experience-dependent refinement of inhibitory inputs to auditory coincidence-detector neurons. <i>Nature Neuroscience</i> , 2002, 5, 247-253.	14.8	212
7	Sound localization and delay lines “do mammals fit the model?”. <i>Trends in Neurosciences</i> , 2003, 26, 347-350.	8.6	197
8	The natural history of sound localization in mammals – a story of neuronal inhibition. <i>Frontiers in Neural Circuits</i> , 2014, 8, 116.	2.8	128
9	Synaptic Transmission at the Calyx of Held Under In Vivo-Like Activity Levels. <i>Journal of Neurophysiology</i> , 2007, 98, 807-820.	1.8	121
10	Neural Delays Shape Selectivity to Interaural Intensity Differences in the Lateral Superior Olive. <i>Journal of Neuroscience</i> , 1996, 16, 6554-6566.	3.6	119
11	The evolution of temporal processing in the medial superior olive, an auditory brainstem structure. <i>Progress in Neurobiology</i> , 2000, 61, 581-610.	5.7	117
12	Maturation of glycinergic inhibition in the gerbil medial superior olive after hearing onset. <i>Journal of Physiology</i> , 2005, 568, 497-512.	2.9	117
13	Medial Superior Olivary Neurons Receive Surprisingly Few Excitatory and Inhibitory Inputs with Balanced Strength and Short-Term Dynamics. <i>Journal of Neuroscience</i> , 2010, 30, 17111-17121.	3.6	107
14	Retrograde GABA Signaling Adjusts Sound Localization by Balancing Excitation and Inhibition in the Brainstem. <i>Neuron</i> , 2008, 59, 125-137.	8.1	100
15	Development of Sound Localization Mechanisms in the Mongolian Gerbil Is Shaped by Early Acoustic Experience. <i>Journal of Neurophysiology</i> , 2005, 94, 1028-1036.	1.8	88
16	Glycinergic inhibition tunes coincidence detection in the auditory brainstem. <i>Nature Communications</i> , 2014, 5, 3790.	12.8	84
17	Working Wonders? Investigating insight with magic tricks. <i>Cognition</i> , 2014, 130, 174-185.	2.2	84
18	Sound-Evoked Activity Influences Myelination of Brainstem Axons in the Trapezoid Body. <i>Journal of Neuroscience</i> , 2017, 37, 8239-8255.	3.6	78

#	ARTICLE	IF	CITATIONS
19	Precisely timed inhibition facilitates action potential firing for spatial coding in the auditory brainstem. <i>Nature Communications</i> , 2018, 9, 1771.	12.8	73
20	Adaptation in sound localization: from GABAB receptor-mediated synaptic modulation to perception. <i>Nature Neuroscience</i> , 2013, 16, 1840-1847.	14.8	67
21	Quantification of the three-dimensional morphology of coincidence detector neurons in the medial superior olive of gerbils during late postnatal development. <i>Journal of Comparative Neurology</i> , 2009, 517, 385-396.	1.6	63
22	Interaural Level Difference Processing in the Lateral Superior Olive and the Inferior Colliculus. <i>Journal of Neurophysiology</i> , 2004, 92, 289-301.	1.8	61
23	Experience-dependent refinement of the inhibitory axons projecting to the medial superior olive. <i>Developmental Neurobiology</i> , 2008, 68, 1454-1462.	3.0	61
24	Efficient Temporal Processing of Naturalistic Sounds. <i>PLoS ONE</i> , 2008, 3, e1655.	2.5	60
25	Sensitivity to Interaural Time Differences in the Medial Superior Olive of a Small Mammal, the Mexican Free-Tailed Bat. <i>Journal of Neuroscience</i> , 1998, 18, 6608-6622.	3.6	56
26	Population Coding of Interaural Time Differences in Gerbils and Barn Owls. <i>Journal of Neuroscience</i> , 2010, 30, 11696-11702.	3.6	55
27	Identification of accessory olfactory system and medial amygdala in the zebrafish. <i>Scientific Reports</i> , 2017, 7, 44295.	3.3	53
28	Anatomy and projection patterns of the superior olivary complex in the mexican free-tailed bat, <i>Tadarida brasiliensis mexicana</i> . <i>Journal of Comparative Neurology</i> , 2004, 343, 630-646.	1.6	50
29	The Evolution of Central Pathways and Their Neural Processing Patterns. <i>Springer Handbook of Auditory Research</i> , 2004, , 289-359.	0.7	50
30	Binaural Response Properties of Low-Frequency Neurons in the Gerbil Dorsal Nucleus of the Lateral Lemniscus. <i>Journal of Neurophysiology</i> , 2006, 96, 1425-1440.	1.8	49
31	Input timing for spatial processing is precisely tuned via constant synaptic delays and myelination patterns in the auditory brainstem. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E4851-E4858.	7.1	48
32	Functional localization of neurotransmitter receptors and synaptic inputs to mature neurons of the medial superior olive. <i>Journal of Neurophysiology</i> , 2012, 107, 1186-1198.	1.8	41
33	Structure and function of the bat superior olivary complex. <i>Microscopy Research and Technique</i> , 2000, 51, 382-402.	2.2	36
34	Action Potential Generation in an Anatomically Constrained Model of Medial Superior Olive Axons. <i>Journal of Neuroscience</i> , 2014, 34, 5370-5384.	3.6	36
35	Yes, there is a medial nucleus of the trapezoid body in humans. <i>Frontiers in Neuroanatomy</i> , 2015, 9, 35.	1.7	36
36	Modulation of synaptic input by GABA _B receptors improves coincidence detection for computation of sound location. <i>Journal of Physiology</i> , 2012, 590, 3047-3066.	2.9	34

#	ARTICLE	IF	CITATIONS
37	Nitric oxide signaling modulates synaptic inhibition in the superior paraolivary nucleus (SPN) via cGMP-dependent suppression of KCC2. <i>Frontiers in Neural Circuits</i> , 2014, 8, 65.	2.8	33
38	Emphasis of spatial cues in the temporal fine structure during the rising segments of amplitude-modulated sounds II: single-neuron recordings. <i>Journal of Neurophysiology</i> , 2014, 111, 1973-1985.	1.8	33
39	Dynamics of binaural processing in the mammalian sound localization pathway – The role of GABAB receptors. <i>Hearing Research</i> , 2011, 279, 43-50.	2.0	24
40	Dynamic changes in level influence spatial coding in the lateral superior olive. <i>Hearing Research</i> , 2008, 238, 58-67.	2.0	23
41	Low-frequency sound affects active micromechanics in the human inner ear. <i>Royal Society Open Science</i> , 2014, 1, 140166.	2.4	23
42	Frequency-Invariant Representation of Interaural Time Differences in Mammals. <i>PLoS Computational Biology</i> , 2011, 7, e1002013.	3.2	22
43	How the Barn Owl Computes Auditory Space. <i>Trends in Neurosciences</i> , 2018, 41, 115-117.	8.6	20
44	Selective filtering to spurious localization cues in the mammalian auditory brainstem. <i>Journal of the Acoustical Society of America</i> , 2009, 126, 2437-2454.	1.1	19
45	Metabolic Maturation of Auditory Neurones in the Superior Olivary Complex. <i>PLoS ONE</i> , 2013, 8, e67351.	2.5	17
46	Adaptation of Binaural Processing in the Adult Brainstem Induced by Ambient Noise. <i>Journal of Neuroscience</i> , 2012, 32, 462-473.	3.6	16
47	Slow NMDA-Mediated Excitation Accelerates Offset-Response Latencies Generated via a Post-Inhibitory Rebound Mechanism. <i>ENeuro</i> , 2019, 6, ENEURO.0106-19.2019.	1.9	16
48	Cooperative population coding facilitates efficient sound-source separability by adaptation to input statistics. <i>PLoS Biology</i> , 2019, 17, e3000150.	5.6	15
49	Source identity shapes spatial preference in primary auditory cortex during active navigation. <i>Current Biology</i> , 2021, 31, 3875-3883.e5.	3.9	14
50	Binaural Glimpses at the Cocktail Party?. <i>JARO - Journal of the Association for Research in Otolaryngology</i> , 2016, 17, 461-473.	1.8	13
51	Complex and spatially segregated auditory inputs of the mouse superior colliculus. <i>Journal of Physiology</i> , 2018, 596, 5281-5298.	2.9	13
52	An auditory brainstem nucleus as a model system for neuronal metabolic demands. <i>European Journal of Neuroscience</i> , 2018, 47, 222-235.	2.6	11
53	Modulation of auditory percepts by transcutaneous electrical stimulation. <i>Hearing Research</i> , 2017, 350, 235-243.	2.0	10
54	Depolarization-induced suppression of a glycinergic synapse in the superior olivary complex by endocannabinoids. <i>Journal of Neurochemistry</i> , 2013, 127, 78-90.	3.9	9

#	ARTICLE	IF	CITATIONS
55	Sensory Island Task (SIT): A New Behavioral Paradigm to Study Sensory Perception and Neural Processing in Freely Moving Animals. <i>Frontiers in Behavioral Neuroscience</i> , 2020, 14, 576154.	2.0	8
56	Breakdown of Excitability by Attenuated PRV-152 Infection in Auditory Brainstem Neurons of Mongolian Gerbils. <i>Neuroscience</i> , 2017, 367, 1-9.	2.3	7
57	Electrogenic <i>N-methyl-D-aspartate</i> receptor signaling enhances binaural responses in the adult brainstem. <i>European Journal of Neuroscience</i> , 2018, 47, 858-865.	2.6	7
58	Sound localization with microsecond precision in mammals: what is it we do not understand?. <i>E-Neuroforum</i> , 2015, 6, 3-10.	0.1	6
59	Optogenetic Control of Neural Circuits in the Mongolian Gerbil. <i>Frontiers in Cellular Neuroscience</i> , 2018, 12, 111.	3.7	5
60	Ketamine-xylozine anesthesia depth affects auditory neuronal responses in the lateral superior olive complex of the gerbil. <i>Journal of Neurophysiology</i> , 2021, 126, 1660-1669.	1.8	5
61	Physiological and anatomical development of glycinergic inhibition in the mouse superior paraolivary nucleus following hearing onset. <i>Journal of Neurophysiology</i> , 2020, 124, 471-483.	1.8	3
62	Biological Aspects of Perceptual Space Formation. <i>Modern Acoustics and Signal Processing</i> , 2020, , 151-171.	0.8	3
63	Ambient noise exposure induces long-term adaptations in adult brainstem neurons. <i>Scientific Reports</i> , 2021, 11, 5139.	3.3	2
64	Extensive GJD2 Expression in the Song Motor Pathway Reveals the Extent of Electrical Synapses in the Songbird Brain. <i>Biology</i> , 2021, 10, 1099.	2.8	2
65	OBSOLETE: The Auditory System Function - An Integrative Perspective. , 2020, , .		1
66	The Auditory System Function - An Integrative Perspective. , 2020, , 1-17.		1
67	Schalllokalisation mit Mikrosekunden-PrÄazision bei SÄugern: Was verstehen wir daran nicht?. <i>E-Neuroforum</i> , 2015, 21, .	0.1	0