Eric I Knudsen

List of Publications by Year
in descending order

74
papers

7,821
citations

81743
39
h-index

88477
70
g-index

75
all docs

75
docs citations

75
times ranked

5750
citing authors

#	Article	IF	Citations
1	Evolution of neural processing for visual perception in vertebrates. Journal of Comparative Neurology, 2020, 528, 2888-2901.	0.9	36
2	Neural Circuits That Mediate Selective Attention: A Comparative Perspective. Trends in Neurosciences, 2018, 41, 789-805.	4.2	79
3	Does the Superior Colliculus Control Perceptual Sensitivity or Choice Bias during Attention? Evidence from a Multialternative Decision Framework. Journal of Neuroscience, 2017, 37, 480-511.	1.7	49
4	Space-Specific Deficits in Visual Orientation Discrimination Caused by Lesions in the Midbrain Stimulus Selection Network. Current Biology, 2017, 27, 2053-2064.e5.	1.8	10
5	Spatially precise visual gain control mediated by a cholinergic circuit in the midbrain attention network. Nature Communications, 2016, 7, 13472.	5.8	19
6	Cholinergic Control of Gamma Power in the Midbrain Spatial Attention Network. Journal of Neuroscience, 2015, 35, 761-775.	1.7	8
7	Selective disinhibition: A unified neural mechanism for predictive and post hoc attentional selection. Vision Research, 2015, 116, 194-209.	0.7	23
8	Gamma oscillations in the midbrain spatial attention network: linking circuits to function. Current Opinion in Neurobiology, 2015, 31, 189-198.	2.0	19
9	Spatially Reciprocal Inhibition of Inhibition within a Stimulus Selection Network in the Avian Midbrain. PLoS ONE, 2014, 9, e85865.	1.1	27
10	Distinguishing bias from sensitivity effects in multialternative detection tasks. Journal of Vision, 2014, 14, 16-16.	0.1	29
11	Visuospatial selective attention in chickens. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, E2056-65.	3.3	29
12	Descending Control of Neural Bias and Selectivity in a Spatial Attention Network: Rules and Mechanisms. Neuron, 2014, 84, 214-226.	3.8	38
13	Parallel Midbrain Microcircuits Perform Independent Temporal Transformations. Journal of Neuroscience, 2014, 34, 8130-8138.	1.7	12
14	Selective attention in birds. Current Biology, 2014, 24, R510-R513.	1.8	32
15	A shared inhibitory circuit for both exogenous and endogenous control of stimulus selection. Nature Neuroscience, 2013, 16, 473-478.	7.1	97
16	Early Experience and Sensitive Periods. , 2013, , 479-495.		4
17	Magnetic tracking of eye position in freely behaving chickens. Frontiers in Systems Neuroscience, 2013, 7, 91.	1.2	29
18	Spatial Probability Dynamically Modulates Visual Target Detection in Chickens. PLoS ONE, 2013, 8, e64136.	1.1	6

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19	Reciprocal Inhibition of Inhibition: A Circuit Motif for Flexible Categorization in Stimulus Selection. Neuron, 2012, 73, 193-205.	3.8	69
20	Gamma Oscillations Are Generated Locally in an Attention-Related Midbrain Network. Neuron, 2012, 73, 567-580.	3.8	46
21	Midbrain and Forebrain Systems for Bottom-up Control of Spatial Attention. , 2012, , 131-150.		4
22	Control from below: the role of a midbrain network in spatial attention. European Journal of Neuroscience, 2011, 33, 1961-1972.	1.2	127
23	The role of a midbrain network in competitive stimulus selection. Current Opinion in Neurobiology, 2011, 21, 653-660.	2.0	121
24	Signaling of the Strongest Stimulus in the Owl Optic Tectum. Journal of Neuroscience, 2011, 31, 5186-5196.	1.7	74
25	Rules of Competitive Stimulus Selection in a Cholinergic Isthmic Nucleus of the Owl Midbrain. Journal of Neuroscience, 2011, 31, 6088-6097.	1.7	26
26	Flexible Categorization of Relative Stimulus Strength by the Optic Tectum. Journal of Neuroscience, 2011, 31, 7745-7752.	1.7	37
27	Space coding by gamma oscillations in the barn owl optic tectum. Journal of Neurophysiology, 2011, 105, 2005-2017.	0.9	37
28	Stimulus-driven competition in a cholinergic midbrain nucleus. Nature Neuroscience, 2010, 13, 889-895.	7.1	62
29	A Dominance Hierarchy of Auditory Spatial Cues in Barn Owls. PLoS ONE, 2010, 5, e10396.	1.1	10
30	Global Inhibition and Stimulus Competition in the Owl Optic Tectum. Journal of Neuroscience, 2010, 30, 1727-1738.	1.7	91
31	Visual Modulation of Auditory Responses in the Owl Inferior Colliculus. Journal of Neurophysiology, 2009, 101, 2924-2933.	0.9	29
32	Distinct Mechanisms for Top-Down Control of Neural Gain and Sensitivity in the Owl Optic Tectum. Neuron, 2008, 60, 698-708.	3.8	48
33	A Hebbian Learning Rule Mediates Asymmetric Plasticity in Aligning Sensory Representations. Journal of Neurophysiology, 2008, 100, 1067-1079.	0.9	14
34	Top-Down Control of Multimodal Sensitivity in the Barn Owl Optic Tectum. Journal of Neuroscience, 2007, 27, 13279-13291.	1.7	56
35	Adaptive auditory plasticity in developing and adult animals. Progress in Neurobiology, 2007, 82, 109-121.	2.8	177
36	Fundamental Components of Attention. Annual Review of Neuroscience, 2007, 30, 57-78.	5.0	778

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37	Top-down gain control of the auditory space map by gaze control circuitry in the barn owl. Nature, 2006, 439, 336-339.	13.7	97
38	Auditory and Visual Space Maps in the Cholinergic Nucleus Isthmi Pars Parvocellularis of the Barn Owl. Journal of Neuroscience, 2006, 26, 12799-12806.	1.7	37
39	Economic, neurobiological, and behavioral perspectives on building America's future workforce. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 10155-10162.	3.3	763
40	Anatomical traces of juvenile learning in the auditory system of adult barn owls. Nature Neuroscience, 2005, 8, 93-98.	7.1	84
41	Auditory-visual fusion in speech perception in children with cochlear implants. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 18748-18750.	3.3	197
42	Why Seeing Is Believing: Merging Auditory and Visual Worlds. Neuron, 2005, 48, 489-496.	3.8	135
43	Multiple Sites of Adaptive Plasticity in the Owl's Auditory Localization Pathway. Journal of Neuroscience, 2004, 24, 6853-6861.	1.7	36
44	Sensitive Periods in the Development of the Brain and Behavior. Journal of Cognitive Neuroscience, 2004, 16, 1412-1425.	1.1	1,249
45	Incremental training increases the plasticity of the auditory space map in adult barn owls. Nature, 2002, 419, 293-296.	13.7	119
46	The optic tectum controls visually guided adaptive plasticity in the owl's auditory space map. Nature, 2002, 415, 73-76.	13.7	104
47	Instructed learning in the auditory localization pathway of the barn owl. Nature, 2002, 417, 322-328.	13.7	291
48	Early Auditory Experience Induces Frequency-Specific, Adaptive Plasticity in the Forebrain Gaze Fields of the Barn Owl. Journal of Neurophysiology, 2001, 85, 2184-2194.	0.9	25
49	Adaptive Axonal Remodeling in the Midbrain Auditory Space Map. Journal of Neuroscience, 2001, 21, 3161-3174.	1.7	114
50	A Topographic Instructive Signal Guides the Adjustment of the Auditory Space Map in the Optic Tectum. Journal of Neuroscience, 2001, 21, 8586-8593.	1.7	61
51	GABAergic Inhibition Antagonizes Adaptive Adjustment of the Owl's Auditory Space Map during the Initial Phase of Plasticity. Journal of Neuroscience, 2001, 21, 4356-4365.	1.7	42
52	Topographic projection from the optic tectum to the auditory space map in the inferior colliculus of the barn owl. , 2000, 421, 146-160.		58
53	Abnormal Auditory Experience Induces Frequency-Specific Adjustments in Unit Tuning for Binaural Localization Cues in the Optic Tectum of Juvenile Owls. Journal of Neuroscience, 2000, 20, 862-877.	1.7	56
54	A Site of Auditory Experience-Dependent Plasticity in the Neural Representation of Auditory Space in the Barn Owl's Inferior Colliculus. Journal of Neuroscience, 2000, 20, 3469-3486.	1.7	62

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55	Topographic projection from the optic tectum to the auditory space map in the inferior colliculus of the barn owl. , 2000, 421, 146.		2
56	Early Visual Experience Shapes the Representation of Auditory Space in the Forebrain Gaze Fields of the Barn Owl. Journal of Neuroscience, 1999, 19, 2326-2336.	1.7	19
57	Functional Selection of Adaptive Auditory Space Map by GABAA-Mediated Inhibition. Science, 1999, 284, 962-965.	6.0	124
58	Maps versus clusters: different representations of auditory space in the midbrain and forebrain. Trends in Neurosciences, 1999, 22, 128-135.	4.2	100
59	Experience-Dependent Plasticity and the Maturation of Glutamatergic Synapses. Neuron, 1998, 20, 1067-1071.	3.8	107
60	Sensitive Periods for Visual Calibration of the Auditory Space Map in the Barn Owl Optic Tectum. Journal of Neuroscience, 1998, 18, 3929-3942.	1.7	158
61	Pharmacological Specialization of Learned Auditory Responses in the Inferior Colliculus of the Barn Owl. Journal of Neuroscience, 1998, 18, 3073-3087.	1.7	39
62	Representation of Binaural Spatial Cues in Field L of the Barn Owl Forebrain. Journal of Neurophysiology, 1998, 79, 879-890.	0.9	23
63	An Anatomical Basis for Visual Calibration of the Auditory Space Map in the Barn Owlâ€™s Midbrain. Journal of Neuroscience, 1997, 17, 6820-6837.	1.7	139
64	Contribution of the forebrain archistriatal gaze fields to auditory orienting behavior in the barn owl. Experimental Brain Research, 1996, 108, 23-32.	0.7	24
65	Disruption of auditory spatial working memory by inactivation of the forebrain archistriatum in barn owls. Nature, 1996, 383, 428-431.	13.7	65
66	Early monaural occlusion alters the neural map of interaural level differences in the inferior colliculus of the barn owl. Brain Research, 1993, 619, 29-38.	1.1	42
67	Neural derivation of sound source location: Resolution of spatial ambiguities in binaural cues. Journal of the Acoustical Society of America, 1992, 91, 1015-1027.	0.5	119
68	Anatomical pathways from the optic tectum to the spinal cord subserving orienting movements in the barn owl. Experimental Brain Research, 1992, 92, 194-208.	0.7	54
69	Horizontal and vertical components of head movement are controlled by distinct neural circuits in the barn owl. Nature, 1990, 345, 434-437.	13.7	209
70	Fused Binocular Vision is Required for Development of Proper Eye Alignment in Barn Owls. Visual Neuroscience, 1989, 2, 35-40.	0.5	25
71	Subdivisions of the inferior colliculus in the barn owl (Tyto alba). Journal of Comparative Neurology, 1983, 218, 174-186.	0.9	118
72	Space-Mapped auditory projections from the inferior colliculus to the optic tectum in the barn owl (Tyto alba). Journal of Comparative Neurology, 1983, 218, 187-196.	0.9	125

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73	Early auditory experience modifies sound localization in barn owls. Nature, 1982, 295, 238-240.	13.7	42
74	Sound localization by the barn owl (Tyto alba) measured with the search coil technique. Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 1979, 133, 1-11.	0.7	350