RÃ¼diger von der Heydt

List of Publications by Year
in descending order

50	4,244	257450 24	265206 42
papers	citations	h-index	g-index

51	51	51	2351
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Analysis of spiking synchrony in visual cortex reveals distinct types of top-down modulation signals for spatial and object-based attention. PLoS Computational Biology, 2021, 17, e1008829.	3.2	3
2	Searching for object pointers in the visual cortex. Journal of Neurophysiology, 2020, 123, 1979-1994.	1.8	8
3	Figure-Ground Organization in Natural Scenes: Performance of a Recurrent Neural Model Compared with Neurons of Area V2. ENeuro, 2019, 6, ENEURO.0479-18.2019.	1.9	8
4	Figure and ground: how the visual cortex integrates local cues for global organization. Journal of Neurophysiology, 2018, 120, 3085-3098.	1.8	9
5	Figure-ground organization in the visual cortex: does meaning matter?. Journal of Neurophysiology, 2018, 119, 160-176.	1.8	12
6	REPRESENTATION AND REMAPPING OF OCCLUDED OBJECTS IN THE ACTIVITY OF V4. Journal of Vision, 2018, 18, 1053.	0.3	0
7	Short-term depression and transient memory in sensory cortex. Journal of Computational Neuroscience, 2017, 43, 273-294.	1.0	6
8	Can the visual cortex represent the invisible?. Journal of Vision, 2017, 17, 348.	0.3	0
9	Spike synchrony generated by modulatory common input through NMDA-type synapses. Journal of Neurophysiology, 2016, 116, 1418-1433.	1.8	21
10	Modeling Attention-Induced Reduction of Spike Synchrony in the Visual Cortex. Lecture Notes in Computer Science, 2016, , 359-366.	1.3	2
11	Figure-Ground Organization in Visual Cortex for Natural Scenes. ENeuro, 2016, 3, ENEURO.0127-16.2016.	1.9	26
12	The role of horizontal connections for the modulation of border-ownership selective neurons in visual cortex. BMC Neuroscience, 2015, 16, .	1.9	0
13	Figureâ€“ground organization and the emergence of proto-objects in the visual cortex. Frontiers in Psychology, 2015, 6, 1695.	2.1	55
14	A neural model for perceptual organization of 3D surfaces. , 2015, , .		3
15	Spike Synchrony Reveals Emergence of Proto-Objects in Visual Cortex. Journal of Neuroscience, 2015, 35, 6860-6870.	3.6	50
16	A model of proto-object based saliency. Vision Research, 2014, 94, 1-15.	1.4	84
17	Remapping of Border Ownership in the Visual Cortex. Journal of Neuroscience, 2013, 33, 1964-1974.	3.6	22
18	Neurophysiological constraints on models of illusory contours. Cognitive Neuroscience, 2013, 4, 49-50.	1.4	4

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19	Border-ownership coding. Scholarpedia Journal, 2013, 8, 30040.	0.3	19
20	A century of Gestalt psychology in visual perception: I. Perceptual grouping and figureâ€“ground organization.. Psychological Bulletin, 2012, 138, 1172-1217.	6.1	955
21	Medial axis generation in a model of perceptual organization. , 2012, , .		6
22	A network model of multiplicative attentional modulation. , 2012, , .		0
23	Event-related simulation of neural processing in complex visual scenes. , 2011, , .		2
24	Representation of object continuity in the visual cortex. Journal of Vision, 2011, 11, 12-12.	0.3	12
25	Mechanisms of perceptual organization provide auto-zoom and auto-localization for attention to objects. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 7583-7588.	7.1	79
26	The speed of context integration in the visual cortex. Journal of Neurophysiology, 2011, 106, 374-385.	1.8	53
27	Analysis of the Context Integration Mechanisms Underlying Figureâ€“Ground Organization in the Visual Cortex. Journal of Neuroscience, 2010, 30, 6482-6496.	3.6	100
28	Short-Term Memory for Figure-Ground Organization in the Visual Cortex. Neuron, 2009, 61, 801-809.	8.1	42
29	Synchrony and the binding problem in macaque visual cortex. Journal of Vision, 2008, 8, 30.	0.3	56
30	A Neural Model of Figureâ€“Ground Organization. Journal of Neurophysiology, 2007, 97, 4310-4326.	1.8	231
31	Neural representation of transparent overlay. Nature Neuroscience, 2007, 10, 283-284.	14.8	62
32	Figure-ground mechanisms provide structure for selective attention. Nature Neuroscience, 2007, 10, 1492-1499.	14.8	213
33	Dissociation of color and figureâ€“ground effects in the watercolor illusion. Spatial Vision, 2006, 19, 323-340.	1.4	46
34	Border-ownership-dependent tilt aftereffect. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2005, 22, 2222.	1.5	32
35	Figure and Ground in the Visual Cortex: V2 Combines Stereoscopic Cues with Gestalt Rules. Neuron, 2005, 47, 155-166.	8.1	236
36	Searching for the Neural Mechanism of Color Filling-In. , 2003, , 106-127.		39

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37	The coding of uniform colour figures in monkey visual cortex. Journal of Physiology, 2003, 548, 593-613.	2.9	195
38	Coding of Border Ownership in Monkey Visual Cortex. Journal of Neuroscience, 2000, 20, 6594-6611.	3.6	660
39	Representation of stereoscopic edges in monkey visual cortex. Vision Research, 2000, 40, 1955-1967.	1.4	175
40	Color Filling-in under Steady Fixation: Behavioral Demonstration in Monkeys and Humans. Perception, 1999, 28, 1383-1395.	1.2	33
41	Simulation of neural contour mechanisms: representing anomalous contours. Image and Vision Computing, 1998, 16, 407-421.	4.5	93
42	Simulation of neural contour mechanisms: from simple to end-stopped cells. Vision Research, 1992, 32, 963-981.	1.4	264
43	Subjective contours - bridging the gap between psychophysics and physiology. Trends in Neurosciences, 1991, 14, 112-119.	8.6	168
44	Approaches to visual cortical function. Reviews of Physiology, Biochemistry and Pharmacology, 1987, 108, 69-150.	1.6	31
45	Plasticity in the binocular correspondence of striate cortical receptive fields in kittens.. Journal of Physiology, 1983, 345, 87-105.	2.9	9
46	The effect of horizontalâ€plane environment on the development of binocular receptive fields of cells in cat visual cortex. Journal of Physiology, 1982, 329, 75-92.	2.9	10
47	Disparity sensitivity and receptive field incongruity of units in the cat striate cortex. Experimental Brain Research, 1978, 31, 523-545.	1.5	99
48	Neuronal plasticity in the afferent visual system. Psychological Research, 1975, 38, 117-146.	1.7	2
49	Neuronal plasticity in the afferent visual system. Psychological Research, 1975, 38, 147-174.	1.7	1
50	A digital random interval generator. Electroencephalography and Clinical Neurophysiology, 1972, 32, 326-328.	0.3	3