

RÃ¼diger von der Heydt

List of Publications by Year in descending order

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50
papers

4,244
citations

257450

24
h-index

265206

42
g-index

51
all docs

51
docs citations

51
times ranked

2351
citing authors

#	ARTICLE	IF	CITATIONS
1	A century of Gestalt psychology in visual perception: I. Perceptual grouping and figureâ€“ground organization.. Psychological Bulletin, 2012, 138, 1172-1217.	6.1	955
2	Coding of Border Ownership in Monkey Visual Cortex. Journal of Neuroscience, 2000, 20, 6594-6611.	3.6	660
3	Simulation of neural contour mechanisms: from simple to end-stopped cells. Vision Research, 1992, 32, 963-981.	1.4	264
4	Figure and Ground in the Visual Cortex: V2 Combines Stereoscopic Cues with Gestalt Rules. Neuron, 2005, 47, 155-166.	8.1	236
5	A Neural Model of Figureâ€“Ground Organization. Journal of Neurophysiology, 2007, 97, 4310-4326.	1.8	231
6	Figure-ground mechanisms provide structure for selective attention. Nature Neuroscience, 2007, 10, 1492-1499.	14.8	213
7	The coding of uniform colour figures in monkey visual cortex. Journal of Physiology, 2003, 548, 593-613.	2.9	195
8	Representation of stereoscopic edges in monkey visual cortex. Vision Research, 2000, 40, 1955-1967.	1.4	175
9	Subjective contours - bridging the gap between psychophysics and physiology. Trends in Neurosciences, 1991, 14, 112-119.	8.6	168
10	Analysis of the Context Integration Mechanisms Underlying Figureâ€“Ground Organization in the Visual Cortex. Journal of Neuroscience, 2010, 30, 6482-6496.	3.6	100
11	Disparity sensitivity and receptive field incongruity of units in the cat striate cortex. Experimental Brain Research, 1978, 31, 523-545.	1.5	99
12	Simulation of neural contour mechanisms: representing anomalous contours. Image and Vision Computing, 1998, 16, 407-421.	4.5	93
13	A model of proto-object based saliency. Vision Research, 2014, 94, 1-15.	1.4	84
14	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
15	Neural representation of transparent overlay. Nature Neuroscience, 2007, 10, 283-284.	14.8	62
16	Synchrony and the binding problem in macaque visual cortex. Journal of Vision, 2008, 8, 30.	0.3	56
17	Figureâ€“ground organization and the emergence of proto-objects in the visual cortex. Frontiers in Psychology, 2015, 6, 1695.	2.1	55
18	The speed of context integration in the visual cortex. Journal of Neurophysiology, 2011, 106, 374-385.	1.8	53

#	ARTICLE	IF	CITATIONS
19	Spike Synchrony Reveals Emergence of Proto-Objects in Visual Cortex. <i>Journal of Neuroscience</i> , 2015, 35, 6860-6870.	3.6	50
20	Dissociation of color and figure-ground effects in the watercolor illusion. <i>Spatial Vision</i> , 2006, 19, 323-340.	1.4	46
21	Short-Term Memory for Figure-Ground Organization in the Visual Cortex. <i>Neuron</i> , 2009, 61, 801-809.	8.1	42
22	Searching for the Neural Mechanism of Color Filling-In. , 2003, , 106-127.		39
23	Color Filling-in under Steady Fixation: Behavioral Demonstration in Monkeys and Humans. <i>Perception</i> , 1999, 28, 1383-1395.	1.2	33
24	Border-ownership-dependent tilt aftereffect. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2005, 22, 2222.	1.5	32
25	Approaches to visual cortical function. <i>Reviews of Physiology, Biochemistry and Pharmacology</i> , 1987, 108, 69-150.	1.6	31
26	Figure-Ground Organization in Visual Cortex for Natural Scenes. <i>ENeuro</i> , 2016, 3, ENEURO.0127-16.2016.	1.9	26
27	Remapping of Border Ownership in the Visual Cortex. <i>Journal of Neuroscience</i> , 2013, 33, 1964-1974.	3.6	22
28	Spike synchrony generated by modulatory common input through NMDA-type synapses. <i>Journal of Neurophysiology</i> , 2016, 116, 1418-1433.	1.8	21
29	Border-ownership coding. <i>Scholarpedia Journal</i> , 2013, 8, 30040.	0.3	19
30	Representation of object continuity in the visual cortex. <i>Journal of Vision</i> , 2011, 11, 12-12.	0.3	12
31	Figure-ground organization in the visual cortex: does meaning matter?. <i>Journal of Neurophysiology</i> , 2018, 119, 160-176.	1.8	12
32	The effect of horizontal-plane environment on the development of binocular receptive fields of cells in cat visual cortex. <i>Journal of Physiology</i> , 1982, 329, 75-92.	2.9	10
33	Plasticity in the binocular correspondence of striate cortical receptive fields in kittens.. <i>Journal of Physiology</i> , 1983, 345, 87-105.	2.9	9
34	Figure and ground: how the visual cortex integrates local cues for global organization. <i>Journal of Neurophysiology</i> , 2018, 120, 3085-3098.	1.8	9
35	Searching for object pointers in the visual cortex. <i>Journal of Neurophysiology</i> , 2020, 123, 1979-1994.	1.8	8
36	Figure-Ground Organization in Natural Scenes: Performance of a Recurrent Neural Model Compared with Neurons of Area V2. <i>ENeuro</i> , 2019, 6, ENEURO.0479-18.2019.	1.9	8

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37	Medial axis generation in a model of perceptual organization. , 2012, , .		6
38	Short-term depression and transient memory in sensory cortex. Journal of Computational Neuroscience, 2017, 43, 273-294.	1.0	6
39	Neurophysiological constraints on models of illusory contours. Cognitive Neuroscience, 2013, 4, 49-50.	1.4	4
40	A digital random interval generator. Electroencephalography and Clinical Neurophysiology, 1972, 32, 326-328.	0.3	3
41	A neural model for perceptual organization of 3D surfaces. , 2015, , .		3
42	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
43	Neuronal plasticity in the afferent visual system. Psychological Research, 1975, 38, 117-146.	1.7	2
44	Event-related simulation of neural processing in complex visual scenes. , 2011, , .		2
45	Modeling Attention-Induced Reduction of Spike Synchrony in the Visual Cortex. Lecture Notes in Computer Science, 2016, , 359-366.	1.3	2
46	Neuronal plasticity in the afferent visual system. Psychological Research, 1975, 38, 147-174.	1.7	1
47	A network model of multiplicative attentional modulation. , 2012, , .		0
48	The role of horizontal connections for the modulation of border-ownership selective neurons in visual cortex. BMC Neuroscience, 2015, 16, .	1.9	0
49	Can the visual cortex represent the invisible?. Journal of Vision, 2017, 17, 348.	0.3	0
50	REPRESENTATION AND REMAPPING OF OCCLUDED OBJECTS IN THE ACTIVITY OF V4. Journal of Vision, 2018, 18, 1053.	0.3	0