David H Brainard

List of Publications by Year
in descending order

66 papers	18,186 citations	236925 25 h-index	138484 58 g-index
82 all docs	82 docs citations	82 times ranked	12521 citing authors

#	Article	IF	Citations
1	An image reconstruction framework for characterizing initial visual encoding. ELife, 2022, 11, .	6.0	5
2	Proximity matters. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	0
3	A quadratic model captures the human V1 response to variations in chromatic direction and contrast. ELife, 2021, 10, .	6.0	3
4	Reflexive Eye Closure in Response to Cone and Melanopsin Stimulation. Neurology, 2021, 97, e1672-e1680.	1.1	5
5	What we talk about when we talk about colors. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	17
6	Melanopic stimulation does not alter psychophysical threshold sensitivity for luminance flicker. Scientific Reports, 2021, 11, 20167.	3.3	5
7	A computational observer model of spatial contrast sensitivity: Effects of photocurrent encoding, fixational eye movements, and inference engine. Journal of Vision, 2020, 20, 17.	0.3	9
8	Selective amplification of ipRGC signals accounts for interictal photophobia in migraine. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 17320-17329.	7.1	22
9	Bayesian Image Reconstruction from Retinal Cone Signals. Journal of Vision, 2020, 20, 842.	0.3	0
10	Color, pattern, and the retinal cone mosaic. Current Opinion in Behavioral Sciences, 2019, 30, 41-47.	3.9	6
11	Computational-observer analysis of illumination discrimination. Journal of Vision, 2019, 19, 11.	0.3	2
12	Illumination discrimination for chromatically biased illuminations: Implications for color constancy. Journal of Vision, 2019, 19, 15.	0.3	29
13	Visual Function at the Atrophic Border in Choroideremia Assessed with Adaptive Optics Microperimetry. Ophthalmology Retina, 2019, 3, 888-899.	2.4	23
14	A Conversation with Jacob Nachmias. Annual Review of Vision Science, 2019, 5, 1-13.	4.4	7
15	The relative contribution of color and material in object selection. PLoS Computational Biology, 2019, 15, e1006950.	3.2	9
16	A computational-observer model of spatial contrast sensitivity: Effects of wave-front-based optics, cone-mosaic structure, and inference engine. Journal of Vision, 2019, 19, 8.	0.3	45
17	Ray tracing 3D spectral scenes through human optics models. Journal of Vision, 2019, 19, 23.	0.3	12
18	Simulation of visual perception and learning with a retinal prosthesis. Journal of Neural Engineering, 2019, 16, 025003.	3.5	22

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19	Automatic longitudinal montaging of adaptive optics retinal images using constellation matching. Biomedical Optics Express, 2019, 10, 6476.	2.9	16
20	A Quadratic Model of the fMRI BOLD Response to Chromatic Modulations in V1. Journal of Vision, 2019, 19, 68c.	0.3	0
21	Adaptation to melanopic stimulation does not affect cone-mediated flicker sensitivity. Journal of Vision, 2019, 19, 72c.	0.3	0
22	Computational luminance constancy from naturalistic images. Journal of Vision, 2018, 18, 19.	0.3	9
23	Illumination discrimination in the absence of a fixed surface-reflectance layout. Journal of Vision, 2018, 18, 11.	0.3	13
24	Pulses of Melanopsin-Directed Contrast Produce Highly Reproducible Pupil Responses That Are Insensitive to a Change in Background Radiance. , 2018, 59, 5615.		7
25	Quantifying how humans trade off color and material in object identification. IS&T International Symposium on Electronic Imaging, 2018, 30, 1-6.	0.4	6
26	Neuronal population mechanisms of lightness perception. Journal of Neurophysiology, 2018, 120, 2296-2310.	1.8	5
27	Spatial summation in the human fovea: Do normal optical aberrations and fixational eye movements have an effect?. Journal of Vision, 2018, 18, 6.	0.3	17
28	The perception of colour and material in naturalistic tasks. Interface Focus, 2018, 8, 20180012.	3.0	20
29	The population mean pupil response to melanopsin stimulation is reliable across sessions and background light levels. Journal of Vision, 2018, 18, 878.	0.3	0
30	The human visual cortex response to melanopsin-directed stimulation is accompanied by a distinct perceptual experience. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12291-12296.	7.1	87
31	Simulating retinal encoding: factors influencing Vernier acuity. IS&T International Symposium on Electronic Imaging, 2017, 29, 177-181.	0.4	8
32	The relative amplitude of pupil response to melanopsin stimulation is a stable individual difference. Journal of Vision, 2017, 17, 14.	0.3	1
33	Illumination discrimination in real and simulated scenes. Journal of Vision, 2016, 16, 2.	0.3	36
34	Hadza Color Terms Are Sparse, Diverse, and Distributed, and Presage the Universal Color Categories Found in Other World Languages. I-Perception, 2016, 7, 204166951668180.	1.4	13
35	Multi-modal automatic montaging of adaptive optics retinal images. Biomedical Optics Express, 2016, 7, 4899.	2.9	49
36	The nature of instructional effects in color constancy.. Journal of Experimental Psychology: Human Perception and Performance, 2016, 42, 847-865.	0.9	31

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37	Variation of outdoor illumination as a function of solar elevation and light pollution. Scientific Reports, 2016, 6, 26756.	3.3	131
38	Human Visual Cortex Responses to Rapid Cone and Melanopsin-Directed Flicker. Journal of Neuroscience, 2016, 36, 1471-1482.	3.6	35
39	Color and the Cone Mosaic. Annual Review of Vision Science, 2015, 1, 519-546.	4.4	43
40	Color constancy supports cross-illumination color selection. Journal of Vision, 2015, 15, 13.	0.3	22
41	Color constancy in a naturalistic, goal-directed task. Journal of Vision, 2015, 15, 3.	0.3	20
42	Colour Vision: Understanding #TheDress. Current Biology, 2015, 25, R551-R554.	3.9	91
43	Hunter-Gatherer Color Naming Provides New Insight into the Evolution of Color Terms. Current Biology, 2015, 25, 2441-2446.	3.9	54
44	Selective Stimulation of Penumbral Cones Reveals Perception in the Shadow of Retinal Blood Vessels. PLoS ONE, 2015, 10, e0124328.	2.5	47
45	RenderToolbox3: MATLAB tools that facilitate physically based stimulus rendering for vision research. Journal of Vision, 2014, 14, 6-6.	0.3	26
46	Correction of Distortion in Flattened Representations of the Cortical Surface Allows Prediction of V1-V3 Functional Organization from Anatomy. PLoS Computational Biology, 2014, 10, e1003538.	3.2	175
47	Unsupervised Learning of Cone Spectral Classes from Natural Images. PLoS Computational Biology, 2014, 10, e1003652.	3.2	20
48	27.2: <i>Distinguished Paper</i>: Modeling Visible Differences: The Computational Observer Model. Digest of Technical Papers SID International Symposium, 2014, 45, 352-356.	0.3	17
49	Scaling Measurements of the Effect of Surface Slant on Perceived Lightness. I-Perception, 2014, 5, 53-72.	1.4	7
50	Opponent melanopsin and S-cone signals in the human pupillary light response. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 15568-15572.	7.1	161
51	Landmark matching based retinal image alignment by enforcing sparsity in correspondence matrix. Medical Image Analysis, 2014, 18, 903-913.	11.6	32
52	No measured effect of a familiar contextual object on color constancy. Color Research and Application, 2014, 39, 347-359.	1.6	14
53	An automated drusen detection system for classifying age-related macular degeneration with color fundus photographs. , 2013, , .		19
54	Surface color perception and equivalent illumination models. Journal of Vision, 2011, 11, 1-1.	0.3	96

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55	Perceived glossiness and lightness under real-world illumination. Journal of Vision, 2010, 10, 5-5.	0.3	94
56	Design of a Trichromatic Cone Array. PLoS Computational Biology, 2010, 6, e1000677.	3.2	47
57	Optimal design of photoreceptor mosaics: Why we do not see color at night. Visual Neuroscience, 2009, 26, 5-19.	1.0	17
58	Trichromatic reconstruction from the interleaved cone mosaic: Bayesian model and the color appearance of small spots. Journal of Vision, 2008, 8, 15.	0.3	48
59	Bayesian model of human color constancy. Journal of Vision, 2006, 6, 10-10.	0.3	83
60	Perception of color and material properties in complex scenes. Journal of Vision, 2004, 4, i.	0.3	30
61	Functional consequences of the relative numbers of L and M cones. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2000, 17, 607.	1.5	203
62	The Psychophysics Toolbox. Spatial Vision, 1997, 10, 433-436.	1.4	15,713
63	Efficiency in detection of isoluminant and isochromatic interference fringes. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1993, 10, 2118.	1.5	104
64	Asymmetric color matching: how color appearance depends on the illuminant. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1992, 9, 1433.	1.5	167
65	The Cost of Trichromacy for Spatial Vision. , 1991, , 11-22.		21
66	Surface characterizations of color thresholds. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1990, 7, 783.	1.5	58