Joel Pokorny

List of Publications by Year
in descending order

134 papers	9,491 citations	50170 46 h-index	40881 93 g-index
134 all docs	134 docs citations	134 times ranked	3023 citing authors

#	Article	IF	Citations
1	Spectral sensitivity of the foveal cone photopigments between 400 and 500 nm. Vision Research, 1975, 15, 161-171.	0.7	1,224
2	Melanopsin-expressing ganglion cells in primate retina signal colour and irradiance and project to the LGN. Nature, 2005, 433, 749-754.	13.7	1,135
3	Human and macaque pupil responses driven by melanopsin-containing retinal ganglion cells. Vision Research, 2007, 47, 946-954.	0.7	512
4	Aging of the human lens. Applied Optics, 1987, 26, 1437.	2.1	432
5	Luminance and chromatic modulation sensitivity of macaque ganglion cells and human observers. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1990, 7, 2223.	0.8	432
6	Temporal modulation sensitivity and pulse-detection thresholds for chromatic and luminance perturbations. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1987, 4, 1992.	0.8	236
7	Luminance. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1993, 10, 1283.	0.8	204
8	Full-spectrum cone sensitivity functions for X-chromosome-linked anomalous trichromats. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1992, 9, 1465.	0.8	188
9	Large-field trichromacy in protanopes and deuteranopes*. Journal of the Optical Society of America, 1977, 67, 213.	1.2	177
10	Responses to pulses and sinusoids in macaque ganglion cells. Vision Research, 1994, 34, 3081-3096.	0.7	157
11	Spectral sensitivity of color-blind observers and the cone photopigments. Vision Research, 1972, 12, 2059-2071.	0.7	156
12	Color-Axis Determination on the Farnsworth-Munsell 100-Hue Test. American Journal of Ophthalmology, 1985, 100, 176-182.	1.7	156
13	Rod inputs to macaque ganglion cells. Vision Research, 1997, 37, 2813-2828.	0.7	137
14	Psychophysical signatures associated with magnocellular and parvocellular pathway contrast gain. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1997, 14, 2477.	0.8	134
15	Foveal cone thresholds. Vision Research, 1989, 29, 61-78.	0.7	118
16	Responses of macaque ganglion cells and human observers to compound periodic waveforms. Vision Research, 1993, 33, 1997-2011.	0.7	114
17	Coneâ€“rod receptor spaces with illustrations that use CRT phosphor and light-emitting-diode spectra. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1996, 13, 2319.	0.8	113
18	Evaluation of single-pigment shift model of anomalous trichromacy*. Journal of the Optical Society of America, 1977, 67, 1196.	1.2	107

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19	Variability of color mixture dataâ€"I. Interobserver variability in the unit coordinates. Vision Research, 1976, 16, 1087-1094.	0.7	97
20	Effect of field size on redâ€"green color mixture equations. Journal of the Optical Society of America, 1976, 66, 705.	1.2	94
21	Sawtooth contrast sensitivity: Decrements have the edge. Vision Research, 1989, 29, IN1-1509.	0.7	89
22	Rod contributions to color perception: Linear with rod contrast. Vision Research, 2008, 48, 2586-2592.	0.7	88
23	Threshold temporal integration of chromatic stimuli. Vision Research, 1984, 24, 653-660.	0.7	85
24	Color vision in two observers with highly biased LWS/MWS cone ratios. Vision Research, 1998, 38, 601-612.	0.7	85
25	Spatial frequency processing in inferred PC- and MC-pathways. Vision Research, 2003, 43, 2133-2139.	0.7	80
26	Photostimulator allowing independent control of rods and the three cone types. Visual Neuroscience, 2004, 21, 263-267.	0.5	79
27	Optical density of the human lens. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1997, 14, 953.	0.8	76
28	Genetic studies of variation in rayleigh and photometric matches in normal trichromats. Vision Research, 1990, 30, 149-162.	0.7	75
29	Foveal cone detection statistics in color-normals and dichromats. Vision Research, 1991, 31, 1021-1037.	0.7	72
30	The design and use of a cone chromaticity space: A tutorial. Color Research and Application, 1996, 21, 375-383.	0.8	72
31	Wavelength effects on simple reaction time. Perception & Psychophysics, 1977, 22, 457-462.	2.3	70
32	Brightness of equal-luminance lights. Journal of the Optical Society of America, 1982, 72, 1225.	1.2	67
33	Primate Horizontal Cell Dynamics: An Analysis of Sensitivity Regulation in the Outer Retina. Journal of Neurophysiology, 2001, 85, 545-558.	0.9	66
34	How surrounds affect chromaticity discrimination. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1993, 10, 545.	0.8	65
35	Linking impulse response functions to reaction time: Rod and cone reaction time data and a computational model. Vision Research, 2007, 47, 1060-1074.	0.7	62
36	Characterization and use of a digital light projector for vision research. Vision Research, 2001, 41, 427-439.	0.7	59

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37	Chromatic discrimination with variation in chromaticity and luminance: Data and theory. Vision Research, 1993, 33, 1835-1845.	0.7	58
38	Chromatic-discrimination axes, CRT phosphor spectra, and individual variation in color vision. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1995, 12, 27.	0.8	55
39	Matching rod percepts with cone stimuli. Vision Research, 2005, 45, 2119-2128.	0.7	55
40	Phase-dependent sensitivity to heterochromatic flicker. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1986, 3, 921.	0.8	54
41	Color matching and the Stilesâ€“Crawford effect in observers with early age-related macular changes. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1988, 5, 2113.	0.8	54
42	Classification of complete and incomplete autosomal recessive achromatopsia. Graefe's Archive for Clinical and Experimental Ophthalmology, 1982, 219, 121-130.	1.0	52
43	Rod-cone interactions assessed in inferred magnocellular and parvocellular postreceptoral pathways. Journal of Vision, 2001, 1, 5.	0.1	52
44	The role of spatial frequency in color induction. Vision Research, 2001, 41, 1007-1021.	0.7	51
45	Densitometric measurement of human cone photopigment kinetics. Vision Research, 1983, 23, 517-524.	0.7	50
46	Heterochromatic modulation photometry. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1989, 6, 1618.	0.8	50
47	Review: Steady and pulsed pedestals, the how and why of post-receptoral pathway separation. Journal of Vision, 2011, 11, 7-7.	0.1	46
48	The color of night: Surface color perception under dim illuminations. Visual Neuroscience, 2006, 23, 525-530.	0.5	45
49	Derivation of the photopigment absorption spectra in anomalous trichromats*. Journal of the Optical Society of America, 1973, 63, 232.	1.2	44
50	Variability of color mixture dataâ€”II. The effect of viewing field size on the unit coordinates. Vision Research, 1976, 16, 1095-1098.	0.7	43
51	Dark-adapted rod suppression of cone flicker detection: Evaluation of receptoral and postreceptoral interactions. Visual Neuroscience, 2006, 23, 531-537.	0.5	43
52	Visual Function in Acute Posterior Multifocal Placoid Pigment Epitheliopathy. American Journal of Ophthalmology, 1978, 85, 192-199.	1.7	42
53	Color matching in autosomal dominant tritan defect. Journal of the Optical Society of America, 1981, 71, 1327.	1.2	42
54	Contrast Sensitivity Deficits in Inferred Magnocellular and Parvocellular Pathways in Retinitis Pigmentosa. , 2004, 45, 4510.		41

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55	Color Contrast Under Controlled Chromatic Adaptation Reveals Opponent Rectification. Vision Research, 1996, 36, 3087-3105.	0.7	40
56	Mechanisms subserving temporal modulation sensitivity in silent-cone substitution. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1995, 12, 241.	0.8	39
57	Chromatic contrast discrimination: Data and prediction for stimuli varying inL andM cone excitation. Color Research and Application, 2000, 25, 105-115.	0.8	39
58	Wavelength Discrimination in the Presence of Added Chromatic Fields*. Journal of the Optical Society of America, 1970, 60, 562.	1.2	37
59	Macular Color Vision Defects. International Ophthalmology Clinics, 1980, 20, 53-82.	0.3	37
60	New observations concerning redâ€“green color defects. Color Research and Application, 1982, 7, 159-164.	0.8	37
61	Variability in Cone Populations and Implications. , 1991, , 23-34.		37
62	Eye disease and color defects. Vision Research, 1986, 26, 1573-1584.	0.7	36
63	Sequential processing in vision: The interaction of sensitivity regulation and temporal dynamics. Vision Research, 2008, 48, 2649-2656.	0.7	36
64	Effects of temporal frequency on phase-dependent sensitivity to heterochromatic flicker. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1987, 4, 2266.	0.8	35
65	Sawtooth contrast sensitivity: Effects of mean illuminance and low temporal frequencies. Vision Research, 1992, 32, 1239-1247.	0.7	35
66	Dynamics of sensitivity regulation in primate outer retina: The horizontal cell network. Journal of Vision, 2003, 3, 5.	0.1	33
67	Anisometropic Amblyopia: Spatial Contrast Sensitivity Deficits in Inferred Magnocellular and Parvocellular Vision. , 2007, 48, 3622.		33
68	Similarities between Congenital Tritan Defects and Dominant Optic-Nerve Atrophy: Coincidence or Identity?*. Journal of the Optical Society of America, 1970, 60, 1132.	1.2	32
69	Spectral-luminosity functions, scalar linearity, and chromatic adaptation. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1993, 10, 1304.	0.8	32
70	Psychophysical estimates of optical density in human cones. Vision Research, 1973, 13, 1199-1202.	0.7	31
71	Pulse and steady-pedestal contrast discrimination: effect of spatial parameters. Vision Research, 2001, 41, 2079-2088.	0.7	31
72	Rodâ€“cone interactions and the temporal impulse response of the cone pathway. Vision Research, 2008, 48, 2593-2598.	0.7	31

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73	Luminosity and CFF in Deuteranopes and Protanopes*. Journal of the Optical Society of America, 1972, 62, 111.	1.2	30
74	Limits of binocular fusion in the short wave sensitive (â€œblueâ€) cones. Vision Research, 1988, 28, 555-562.	0.7	29
75	Increment threshold and purity discrimination spectral sensitivities of X-chromosome-linked color-defective observers. Vision Research, 1996, 36, 1597-1613.	0.7	29
76	Brightness induction from rods. Journal of Vision, 2001, 1, 4.	0.1	29
77	Metacontrast masking depends on luminance transients. Vision Research, 1977, 17, 971-975.	0.7	28
78	Appearance of steadily viewed lights. Vision Research, 1987, 27, 1309-1318.	0.7	28
79	Contrast-Processing Deficits in Melanoma-Associated Retinopathy. , 2004, 45, 305.		27
80	Audiophile hardware in vision science; the soundcard as a digital to analog converter. Journal of Neuroscience Methods, 2005, 142, 77-81.	1.3	27
81	Foveal Densitometry in Central Serous Choroidopathy. American Journal of Ophthalmology, 1984, 98, 359-368.	1.7	26
82	Color Matching and Color Discrimination. , 2003, , 103-148.		26
83	Spatial and temporal chromatic contrast: Effects on chromatic discrimination for stimuli varying in L- and M-cone excitation. Visual Neuroscience, 2006, 23, 495-501.	0.5	25
84	Contrast discrimination deficits in retinitis pigmentosa are greater for stimuli that favor the magnocellular pathway. Vision Research, 2001, 41, 671-683.	0.7	24
85	Control of the modulation of human photoreceptors. Color Research and Application, 2001, 26, S69-S75.	0.8	24
86	Autosomal Dominantly Inherited Macular Dystrophy with Preferential Short-Wavelength Sensitive Cone Involvement. American Journal of Ophthalmology, 1989, 108, 265-276.	1.7	21
87	Chromatic discrimination in the presence of incremental and decremental rod pedestals. Visual Neuroscience, 2008, 25, 399-404.	0.5	21
88	Autosomal Recessive Incomplete Achromatopsia with Protan Luminosity Function. Ophthalmologica, 1978, 177, 197-207.	1.0	20
89	Effect of sawtooth polarity on chromatic and luminance detection. Visual Neuroscience, 1994, 11, 491-499.	0.5	20
90	Continuous Hue Estimation of Brief Flashes by Deuteranomalous Observers. American Journal of Psychology, 1973, 86, 115.	0.5	19

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91	Visual Function Abnormalities in Macular Heterotopia Caused by Proliferative Diabetic Retinopathy. American Journal of Ophthalmology, 1981, 92, 85-102.	1.7	19
92	Pigment tests evaluated by a model of chromatic discrimination. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1993, 10, 1773.	0.8	19
93	Temporal dynamics of early light adaptation. Journal of Vision, 2003, 3, 3.	0.1	19
94	The consequences of opponent rectification: the effect of surround size and luminance on color appearance. Vision Research, 2001, 41, 859-871.	0.7	18
95	Threshold units: A correct metric for reaction time?. Vision Research, 2007, 47, 608-611.	0.7	18
96	Rod and cone contrast gains derived from reaction time distribution modeling. Journal of Vision, 2010, 10, 1-15.	0.1	18
97	Colorimetric purity discrimination: Data and theory. Vision Research, 1993, 33, 1847-1857.	0.7	17
98	Isolated mesopic rod and cone electroretinograms realized with a four-primary method. Documenta Ophthalmologica, 2011, 123, 29-41.	1.0	17
99	Functional Loss in the Magnocellular and Parvocellular Pathways in Patients with Optic Neuritis. , 2011, 52, 8900.		17
100	Autosomal Recessive Incomplete Achromatopsia with Deutan Luminosity. American Journal of Ophthalmology, 1979, 87, 393-402.	1.7	16
101	A Computer-Controlled Briefcase Anomaloscope. Documenta Ophthalmologica Proceedings Series, 1989, , 515-522.	0.0	16
102	Sensitivity of arrangement tests as evaluated in normals at reduced levels of illumination. Documenta Ophthalmologica Proceedings Series, 1991, , 177-185.	0.0	16
103	Spatial and temporal chromatic contrast: Effects on chromatic discrimination for stimuli varying in L- and M-cone excitation. Visual Neuroscience, 2006, 23, 495-501.	0.5	15
104	Duration thresholds for chromatic stimuli. Journal of the Optical Society of America, 1979, 69, 103.	1.2	14
105	Chromatic information processing.. Journal of Experimental Psychology: Human Perception and Performance, 1979, 5, 406-419.	0.7	14
106	Achromatic parvocellular contrast gain in normal and color defective observers: Implications for the evolution of color vision. Visual Neuroscience, 2006, 23, 611-616.	0.5	14
107	Rod contribution to large-field color matching. Color Research and Application, 1994, 19, 236-245.	0.8	13
108	Temporal sensitivity of macaque ganglion cells to lights of different chromaticity. Color Research and Application, 2001, 26, S140-S144.	0.8	13

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109	S-cone discrimination for stimuli with spatial and temporal chromatic contrast. Visual Neuroscience, 2008, 25, 349-354.	0.5	13
110	Macular Pigment Optical Density Measured by Heterochromatic Modulation Photometry. PLoS ONE, 2014, 9, e110521.	1.1	13
111	Fifty Years Exploring the Visual System. Annual Review of Vision Science, 2020, 6, 1-23.	2.3	12
112	Photopigments in anomalous trichromats*. Journal of the Optical Society of America, 1975, 65, 1522.	1.2	10
113	Color appearance: neutral surrounds and spatial contrast. Vision Research, 1998, 38, 3265-3269.	0.7	9
114	Associating color appearance with the cone chromaticity space. Vision Research, 2005, 45, 1929-1934.	0.7	9
115	Flicker Adaptation Desensitizes the Magnocellular but Not the Parvocellular Pathway. , 2015, 56, 2901.		9
116	Red-green chromatic discrimination with variegated and homogeneous stimuli. Vision Research, 1998, 38, 3271-3274.	0.7	8
117	The color of night: Surface color categorization by color defective observers under dim illuminations. Visual Neuroscience, 2008, 25, 475-480.	0.5	7
118	Improved Clinical Technique For Wald-MarrÃ© Functions. Documenta Ophthalmologica Proceedings Series, 1987, , 259-265.	0.0	6
119	Critical Flicker Frequency in X-Chromosome Linked Dichromats. Documenta Ophthalmologica Proceedings Series, 1989, , 69-77.	0.0	5
120	A variant of red-green color defect. Vision Research, 1981, 21, 311-317.	0.7	4
121	Inferred retinal mechanisms mediating illusory distortions. Visual Neuroscience, 2004, 21, 321-325.	0.5	4
122	An investigation of scotopic threshold-versus-illuminance curves for the analysis of color-matching data. Color Research and Application, 1996, 21, 80-86.	0.8	3
123	Metameric Matches Relevant for Assessment of Color Vision. Documenta Ophthalmologica Proceedings Series, 1984, , 83-94.	0.0	3
124	Psychophysical Correlates of Identified Physiological Processes. , 2006, , 311-358.		2
125	Quantal and non-quantal color matches: failure of Grassmannâ€™s laws at short wavelengths. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2012, 29, A324.	0.8	2
126	Assessment of S-cone sensitivity. Documenta Ophthalmologica Proceedings Series, 1995, , 299-308.	0.0	2

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127	Guest editorials. Australasian journal of optometry, The, 2004, 87, 203-205.	0.6	1
128	A Familial Macular Dystrophy with Apparently Preferential Short-Wavelength-Sensitive Cone Involvement. Preliminary Report. Documenta Ophthalmologica Proceedings Series, 1989, , 195-200.	0.0	1
129	The Farnsworth-Munsell 100-hue test in cone excitation space. Documenta Ophthalmologica Proceedings Series, 1993, , 281-291.	0.0	1
130	A New Technique for Proper Illumination for Color Vision Tests. American Journal of Ophthalmology, 1977, 84, 429.	1.7	0
131	Interactions of chromaticity and luminance in edge identification depend on chromaticity. Visual Neuroscience, 2004, 21, 377-382.	0.5	0
132	Color Vision and Night Vision. , 2006, , 209-225.		0
133	Chromatic adaptation in redâ€“green cone-opponent retinal ganglion cells of the macaque. Vision Research, 2008, 48, 2625-2632.	0.7	0
134	The red-green chromatic system in X-chromosome- linked anomalous trichromats. Documenta Ophthalmologica Proceedings Series, 1995, , 149-157.	0.0	0