Arthur Bradley

List of Publications by Year
in descending order

119 papers	6,158 citations	76196 40 h-index	79541 73 g-index
119 all docs	119 docs citations	119 times ranked	2365 citing authors

#	Article	IF	Citations
1	Statistical variation of aberration structure and image quality in a normal population of healthy eyes. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2002, 19, 2329.	0.8	529
2	Accuracy and precision of objective refraction from wavefront aberrations. Journal of Vision, 2004, 4, 9.	0.1	425
3	The chromatic eye: a new reduced-eye model of ocular chromatic aberration in humans. Applied Optics, 1992, 31, 3594.	2.1	252
4	Contrast dependence and mechanisms of masking interactions among chromatic and luminance gratings. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1988, 5, 1149.	0.8	202
5	Relationship between Refractive Error and Monochromatic Aberrations of the Eye. Optometry and Vision Science, 2003, 80, 43-49.	0.6	186
6	Blinking and Tear Break-Up During Four Visual Tasks. Optometry and Vision Science, 2009, 86, E106-E114.	0.6	181
7	Predicting subjective judgment of best focus with objective image quality metrics. Journal of Vision, 2004, 4, 7.	0.1	172
8	Orientation and spatial frequency selectivity of adaptation to color and luminance gratings. Vision Research, 1988, 28, 841-856.	0.7	166
9	A statistical model of the aberration structure of normal, well-corrected eyes. Ophthalmic and Physiological Optics, 2002, 22, 427-433.	1.0	139
10	Contrast perception above threshold is only minimally impaired in human amblyopia. Nature, 1980, 287, 463-464.	13.7	136
11	The longitudinal chromatic aberration of the human eye, and its correction. Vision Research, 1986, 26, 361-366.	0.7	128
12	Characterization of spatial aliasing and contrast sensitivity in peripheral vision. Vision Research, 1996, 36, 249-258.	0.7	123
13	The relationship between anisometropia and amblyopia. Progress in Retinal and Eye Research, 2013, 36, 120-158.	7.3	121
14	Understanding the Neural Basis of Amblyopia. Neuroscientist, 2004, 10, 106-117.	2.6	114
15	Validation of a Clinical Shack-Hartmann Aberrometer. Optometry and Vision Science, 2003, 80, 587-595.	0.6	110
16	Nonveridical Visual Perception in Human Amblyopia. , 2003, 44, 1555.		103
17	A comparison of contrast detection and discrimination. Vision Research, 1986, 26, 991-997.	0.7	99
18	Comparison of the eyeâ€™s wave-front aberration measured psychophysically and with the Shackâ€“Hartmann wave-front sensor. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1998, 15, 2457.	0.8	99

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19	Testâ€“Retest Reliability of Clinical Shack-Hartmann Measurements. , 2004, 45, 351.		98
20	IMI â€“ Clinical Myopia Control Trials and Instrumentation Report. , 2019, 60, M132.		91
21	Effect of Ocular Chromatic Aberration on Monocular Visual Performance. Optometry and Vision Science, 1991, 68, 599-607.	0.6	85
22	Estimating Visual Quality from Wavefront Aberration Measurements. Journal of Refractive Surgery, 2003, 19, .	1.1	83
23	Adaptation to astigmatic blur. Journal of Vision, 2010, 10, 22-22.	0.1	80
24	Visual Impact of Zernike and Seidel Forms of Monochromatic Aberrations. Optometry and Vision Science, 2010, 87, 300-312.	0.6	74
25	Calculation of retinal image quality for polychromatic light. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2008, 25, 2395.	0.8	72
26	Effects of contrast and spatial frequency on vernier acuity. Vision Research, 1987, 27, 1817-1824.	0.7	68
27	Measurement of the Time Course of Optical Quality and Visual Deterioration during Tear Break-Up. , 2010, 51, 3318.		59
28	The role of neural and optical factors in limiting visual resolution in myopia. Vision Research, 1998, 38, 1713-1721.	0.7	58
29	Is reduced vernier acuity in amblyopia due to position, contrast or fixation deficits?. Vision Research, 1985, 25, 55-66.	0.7	57
30	Failures of isoluminance caused by ocular chromatic aberrations. Applied Optics, 1992, 31, 3657.	2.1	56
31	Chromatic aberration and polychromatic image quality with diffractive multifocal intraocular lenses. Journal of Cataract and Refractive Surgery, 2014, 40, 1192-1204.	0.7	54
32	Apodization by the Stilesâ€“Crawford effect moderates the visual impact of retinal image defocus. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1999, 16, 812.	0.8	52
33	Predicting the effects of optical defocus on human contrast sensitivity. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1998, 15, 2536.	0.8	51
34	Retinal image quality during accommodation. Ophthalmic and Physiological Optics, 2013, 33, 497-507.	1.0	50
35	Spherical Aberration of the Reduced Schematic Eye with Elliptical Refracting Surface. Optometry and Vision Science, 1997, 74, 548-556.	0.6	48
36	Unbiased estimation of refractive state of aberrated eyes. Vision Research, 2011, 51, 1932-1940.	0.7	48

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37	Use of Liquid-Crystal Adaptive-Optics to Alter the Refractive State of the Eye. Optometry and Vision Science, 1997, 74, 581-587.	0.6	47
38	Spherical Aberration and the Sign of Defocus. Optometry and Vision Science, 2013, 90, 1284-1291.	0.6	47
39	Quantitative Analysis of Tear Film Fluorescence and Discomfort During Tear Film Instability and Thinning. , 2013, 54, 2645.		47
40	Validation of an Off-Eye Contact Lens Shack-Hartmann Wavefront Aberrometer. Optometry and Vision Science, 2008, 85, E817-E828.	0.6	46
41	Modelling the impact of spherical aberration on accommodation. Ophthalmic and Physiological Optics, 2013, 33, 482-496.	1.0	46
42	The effects of large orientation and spatial frequency differences on spatial discriminations. Vision Research, 1984, 24, 1889-1896.	0.7	45
43	Impact of contact lens zone geometry and ocular optics on bifocal retinal image quality. Ophthalmic and Physiological Optics, 2014, 34, 331-345.	1.0	43
44	Impact of primary spherical aberration, spatial frequency and <scp>S</scp>tiles <scp>C</scp>rawford apodization on wavefront determined refractive error: a computational study. Ophthalmic and Physiological Optics, 2013, 33, 444-455.	1.0	42
45	New Methods for Discriminating Neural and Optical Losses of Vision. Optometry and Vision Science, 1993, 70, 279-287.	0.6	41
46	Neural bandwidth of veridical perception across the visual field. Journal of Vision, 2016, 16, 1.	0.1	41
47	Psychophysical measurement of the size and shape of the human foveal avascular zone. Ophthalmic and Physiological Optics, 1992, 12, 18-23.	1.0	38
48	Effects of Target Distance and Pupil Size on Letter Contrast Sensitivity with Simultaneous Vision Bifocal Contact Lenses. Optometry and Vision Science, 1993, 70, 476-481.	0.6	38
49	Monocular Diplopia Caused by Ocular Aberrations and Hyperopic Defocus. Vision Research, 1996, 36, 3597-3606.	0.7	38
50	Use of Retroillumination to Visualize Optical Aberrations Caused by Tear Film Break-Up. Optometry and Vision Science, 2003, 80, 69-78.	0.6	38
51	Achromatizing the human eye: the problem of chromatic parallax. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1991, 8, 686.	0.8	37
52	Scale and Spatial Distribution of Aberrations Associated with Tear Breakup. Optometry and Vision Science, 2012, 89, 1590-1600.	0.6	35
53	Modelling the effects of secondary spherical aberration on refractive error, image quality and depth of focus. Ophthalmic and Physiological Optics, 2015, 35, 28-38.	1.0	31
54	Accommodative Behavior of Young Eyes Wearing Multifocal Contact Lenses. Optometry and Vision Science, 2018, 95, 416-427.	0.6	31

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55	Consequences of Monocular Diplopia for the Contrast Sensitivity Function. Vision Research, 1996, 36, 3587-3596.	0.7	30
56	Readily visible changes in color contrast are insufficient to stimulate accommodation. Vision Research, 1990, 30, 1367-1376.	0.7	29
57	Influence of spherical aberration, stimulus spatial frequency, and pupil apodisation on subjective refractions. Ophthalmic and Physiological Optics, 2014, 34, 309-320.	1.0	29
58	The effect of pupil size on chromostereopsis and chromatic diplopia: Interaction between the Stiles-Crawford effect and chromatic aberrations. Vision Research, 1992, 32, 2121-2128.	0.7	28
59	Phase changes induced by optical aberrations degrade letter and face acuity. Journal of Vision, 2010, 10, 18-18.	0.1	28
60	Experimental investigation of accommodation in eyes fit with multifocal contact lenses using a clinical autoâ€refractor. Ophthalmic and Physiological Optics, 2018, 38, 152-163.	1.0	27
61	Neurophysiological evaluation of the differential response model for orientation and spatial-frequency discrimination. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1985, 2, 1607.	0.8	26
62	Design Principles and Limitations of Wave-Front Guided Contact Lenses. Eye and Contact Lens, 2003, 29, S167-S170.	0.8	26
63	The mechanisms of vision loss associated with a cotton wool spot. Vision Research, 2009, 49, 2826-2834.	0.7	26
64	Comparing the Optical Properties of Soft Contact Lenses On and Off the Eye. Optometry and Vision Science, 2013, 90, 924-936.	0.6	26
65	Predicting Optical Effects of Tear Film Break Up on Retinal Image Quality Using the Shack-Hartmann Aberrometer and Computational Optical Modeling. Advances in Experimental Medicine and Biology, 2002, 506, 1141-1147.	0.8	26
66	Glenn A. Fry Award Lecture 1991: Perceptual Manifestations of Imperfect Optics in the Human Eye: Attempts to Correct for Ocular Chromatic Aberration. Optometry and Vision Science, 1992, 69, 515-521.	0.6	24
67	Undersampling produces non-veridical motion perception, but not necessarily motion reversal, in peripheral vision. Vision Research, 1996, 36, 1737-1744.	0.7	24
68	Optical and imaging properties of a novel multiâ€segment spectacle lens designed to slow myopia progression. Ophthalmic and Physiological Optics, 2020, 40, 549-556.	1.0	24
69	Experimental determination of the chromatic difference of magnification of the human eye and the location of the anterior nodal point. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1993, 10, 213.	0.8	23
70	Entoptic image quality of the retinal vasculature. Vision Research, 1998, 38, 2685-2696.	0.7	23
71	Isolation of stimulus characteristics contributing to Weber's law for position. Vision Research, 2002, 42, 1137-1148.	0.7	23
72	Interocular differences in transverse chromatic aberration determine chromostereopsis for small pupils. Vision Research, 1991, 31, 1787-1796.	0.7	22

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73	The Effects of Increasing Ocular Surface Stimulation on Blinking and Tear Secretion. , 2015, 56, 4211.		22
74	Interaction of aberrations, diffraction, and quantal fluctuations determine the impact of pupil size on visual quality. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2017, 34, 481.	0.8	22
75	Correction of presbyopia: old problems with old (and new) solutions. Australasian journal of optometry, The, 2020, 103, 21-30.	0.6	21
76	Estimating visual quality from wavefront aberration measurements. Journal of Refractive Surgery, 2003, 19, S579-84.	1.1	21
77	Forward light scatter analysis of the eye in a spatially-resolved double-pass optical system. Optics Express, 2011, 19, 7417.	1.7	20
78	Interferometric measurement of visual acuity and the effect of ocular chromatic aberration. Applied Optics, 1991, 30, 2079.	2.1	18
79	Aliased Frequencies Enable the Discrimination of Compound Gratings in Peripheral Vision. Vision Research, 1997, 37, 283-290.	0.7	18
80	Validation of a Clinical Aberrometer Using Pyramidal Wavefront Sensing. Optometry and Vision Science, 2019, 96, 733-744.	0.6	18
81	The Effect of Light Level and Small Pupils on Presbyopic Reading Performance. , 2016, 57, 5656.		17
82	Temporal sensitivity in amblyopia: An explanation of conflicting reports. Vision Research, 1985, 25, 39-46.	0.7	16
83	Visual Acuity Measured with Clinical Maxwellian-View Systems: Effects of Beam Entry Location. Optometry and Vision Science, 1990, 67, 811-817.	0.6	16
84	Comparison of Monochromatic Ocular Aberrations Measured with an Objective Cross-Cylinder Aberroscope and a Shack-Hartmann Aberrometer. Optometry and Vision Science, 2003, 80, 15-25.	0.6	16
85	<scp>IUR</scp>ead: a new computerâ€based reading test. Ophthalmic and Physiological Optics, 2015, 35, 500-513.	1.0	16
86	Chromatic Aberration and Optical Power of a Diffractive Bifocal Contact Lens. Optometry and Vision Science, 1992, 69, 797-804.	0.6	15
87	Reversals of the colour-depth illusion explained by ocular chromatic aberration. Vision Research, 1995, 35, 2675-2684.	0.7	14
88	Expanding binocular depth of focus by combining monovision with diffractive bifocal intraocular lenses. Journal of Cataract and Refractive Surgery, 2016, 42, 1288-1296.	0.7	14
89	Effect of Target Luminance on Optimum Pupil Diameter for Presbyopic Eyes. Optometry and Vision Science, 2016, 93, 1409-1419.	0.6	13
90	Accommodation and pupil behaviour of binocularly viewing early presbyopes. Ophthalmic and Physiological Optics, 2017, 37, 128-140.	1.0	13

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91	Is amblyopia spatial frequency or retinal locus specific?. Vision Research, 1985, 25, 47-54.	0.7	12
92	Polychromatic Refractive Error from Monochromatic Wavefront Aberrometry. Optometry and Vision Science, 2014, 91, 1167-1174.	0.6	11
93	Simulation of a central scotoma using contact lenses with an opaque centre. Ophthalmic and Physiological Optics, 2018, 38, 76-87.	1.0	11
94	Accommodative Behavior, Hyperopic Defocus, and Retinal Image Quality in Children Viewing Electronic Displays. Optometry and Vision Science, 2020, 97, 628-640.	0.6	11
95	Reducing starbursts in highly aberrated eyes with pupil miosis. Ophthalmic and Physiological Optics, 2018, 38, 26-36.	1.0	10
96	MODELING OFF-AXIS VISION I: THE OPTICAL EFFECTS OF DECENTERING VISUAL TARGETS OR THE EYE'S ENTRANCE PUPIL. , 1995, , 313-337.		9
97	Interaction between sub- and supra-Nyquist spatial frequencies in peripheral vision. Vision Research, 1997, 37, 2545-2552.	0.7	9
98	Probing the causes of visual acuity loss in patients diagnosed with functional amblyopia. Ophthalmic and Physiological Optics, 2005, 25, 175-178.	1.0	9
99	Resolution acuity across the visual field for mesopic and scotopic illumination. Journal of Vision, 2020, 20, 7.	0.1	9
100	Validation of a combined corneal topographer and aberrometer based on Shackâ€“Hartmann wave-front sensing. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2004, 21, 683.	0.8	8
101	Effect of ocular transverse chromatic aberration on detection acuity for peripheral vision. Ophthalmic and Physiological Optics, 2015, 35, 70-80.	1.0	8
102	The effect of spherical aberration on visual performance and refractive state for stimuli and tasks typical of night viewing. Journal of Optometry, 2018, 11, 144-152.	0.7	8
103	Small-pupil versus multifocal strategies for expanding depth of focus of presbyopic eyes. Journal of Cataract and Refractive Surgery, 2019, 45, 647-655.	0.7	8
104	The Impact of IOL Abbe Number on Polychromatic Image Quality of Pseudophakic Eyes . Clinical Ophthalmology, 2020, Volume 14, 2271-2281.	0.9	8
105	Accommodative Behavior of Eyes Wearing Aspheric Single Vision Contact Lenses. Optometry and Vision Science, 2017, 94, 971-980.	0.6	7
106	Psychophysical study of the optical origin of starbursts. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2019, 36, B97.	0.8	7
107	Accommodation in Early Presbyopes Fit with Bilateral or Unilateral Near Add. Optometry and Vision Science, 2018, 95, 43-52.	0.6	6
108	Vernier acuity with compound gratings: the whole is equal to the better of its parts. Vision Research, 1999, 39, 3681-3691.	0.7	5

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109	Wavefront Refraction and Correction. Optometry and Vision Science, 2014, 91, 1154-1155.	0.6	5
110	Focus correction in an apodized system with spherical aberration. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2015, 32, 1556.	0.8	4
111	Small Text on Product Labels Poses a Special Challenge for Emerging Presbyopes. Optometry and Vision Science, 2019, 96, 291-300.	0.6	4
112	Impact of monovision on dynamic accommodation of early presbyopes. Ophthalmic and Physiological Optics, 2020, 40, 47-59.	1.0	4
113	Use of interferometric visual stimulators in optometry. Ophthalmic and Physiological Optics, 1992, 12, 206-208.	1.0	2
114	The potential for and challenges of spherical and chromatic aberration correction with new IOL designs. British Journal of Ophthalmology, 2013, 97, 677-678.	2.1	2
115	Riccoâ€™s law and absolute threshold for foveal detection of black holes. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2019, 36, B35.	0.8	2
116	Catastrophe optics theory unveils the localised wave aberration features that generate ghost images. Ophthalmic and Physiological Optics, 0, , .	1.0	2
117	Can Down-gaze During Near Work Cause Peripheral Deprivation in Asian Eyes?. Optometry and Vision Science, 2016, 93, 1513-1524.	0.6	1
118	Liquid Crystal Spatial Light Modulators for Simulating Zonal Multifocal Lenses. Optometry and Vision Science, 2017, 94, 867-875.	0.6	1
119	Timeâ€course of the visual Impact on presbyopes of a low dose miotic. Ophthalmic and Physiological Optics, 2021, 41, 73-83.	1.0	1