

# Gordon E Legge

## List of Publications by Year in descending order

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164  
papers

11,926  
citations

30070

54  
h-index

29157

104  
g-index

169  
all docs

169  
docs citations

169  
times ranked

4462  
citing authors

#	ARTICLE	IF	CITATIONS
1	Evaluating the Visibility of Architectural Features for People with Low Vision – A Quantitative Approach. LEUKOS - Journal of Illuminating Engineering Society of North America, 2022, 18, 154-172.	2.9	2
2	Visual and Auditory Spatial Localization in Younger and Older Adults. Frontiers in Aging Neuroscience, 2022, 14, 838194.	3.4	3
3	How can basic research on spatial cognition enhance the visual accessibility of architecture for people with low vision?. Cognitive Research: Principles and Implications, 2021, 6, 3.	2.0	4
4	Simulated central vision loss impairs implicit location probability learning. Cortex, 2021, 138, 241-252.	2.4	8
5	Simulating Visibility and Reading Performance in Low Vision. Frontiers in Neuroscience, 2021, 15, 671121.	2.8	3
6	Evaluation and Comparison of Artificial Intelligence Vision Aids: Orcam MyEye 1 and Seeing AI. Journal of Visual Impairment and Blindness, 2021, 115, 277-285.	0.7	14
7	A Unified Rule for Binocular Contrast Summation Applies to Normal Vision and Common Eye Diseases. , 2021, 62, 6.		4
8	Validating a model of architectural hazard visibility with low-vision observers. PLoS ONE, 2021, 16, e0260267.	2.5	0
9	Reconciling print-size and display-size constraints on reading. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30276-30284.	7.1	8
10	Online Survey of Digital Reading by Adults with Low Vision. Optometry and Vision Science, 2020, 97, 249-256.	1.2	8
11	Relationship Between Acuity and Contrast Sensitivity: Differences Due to Eye Disease. , 2020, 61, 40.		21
12	Spatial attentional learning in simulated central vision loss. Journal of Vision, 2020, 20, 577.	0.3	0
13	Preserved tactile acuity in older pianists. Attention, Perception, and Psychophysics, 2019, 81, 2619-2625.	1.3	4
14	Visual factors in reading. Vision Research, 2019, 161, 60-62.	1.4	3
15	Extending the MNREAD sentence corpus: Computer-generated sentences for measuring visual performance in reading. Vision Research, 2019, 158, 11-18.	1.4	16
16	Reading with letter transpositions in central and peripheral vision. Journal of Vision, 2019, 19, 17.	0.3	4
17	Gaze behavior during navigation with reduced acuity. Experimental Eye Research, 2019, 183, 20-28.	2.6	4
18	Effects of age and target modality on spatial localization on the horizontal plane. Journal of Vision, 2019, 19, 117b.	0.3	1

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19	Training peripheral vision to read: Boosting the speed of letter processing. <i>Vision Research</i> , 2018, 152, 51-60.	1.4	11
20	Fonts Designed for Macular Degeneration: Impact on Reading. , 2018, 59, 4182.		22
21	How People with Low Vision Achieve Magnification in Digital Reading. <i>Optometry and Vision Science</i> , 2018, 95, 711-719.	1.2	15
22	Reading Acuity as a Predictor of Low-Vision Reading Performance. , 2018, 59, 4798.		15
23	Beneficial Effects of Spatial Remapping for Reading With Simulated Central Field Loss. , 2018, 59, 1105.		11
24	Comparing performance on the MNREAD iPad application with the MNREAD acuity chart. <i>Journal of Vision</i> , 2018, 18, 8.	0.3	44
25	Comparing the minimum spatial-frequency content for recognizing Chinese and alphabet characters. <i>Journal of Vision</i> , 2018, 18, 1.	0.3	8
26	Common constraints limit Korean and English character recognition in peripheral vision. <i>Journal of Vision</i> , 2018, 18, 5.	0.3	5
27	Korean reading speed: Effects of print size and retinal eccentricity. <i>Vision Research</i> , 2018, 150, 8-14.	1.4	7
28	Remote Sighted Assistants for Indoor Location Sensing of Visually Impaired Pedestrians. <i>ACM Transactions on Applied Perception</i> , 2017, 14, 1-14.	1.9	9
29	Simulating visibility under reduced acuity and contrast sensitivity. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2017, 34, 583.	1.5	17
30	Linking crowding, visual span, and reading. <i>Journal of Vision</i> , 2017, 17, 11.	0.3	12
31	Does Vertical Reading Help People with Macular Degeneration: An Exploratory Study. <i>PLoS ONE</i> , 2017, 12, e0170743.	2.5	7
32	Indoor Spatial Updating With Impaired Vision. , 2016, 57, 6757.		9
33	Comparing the Shape of Contrast Sensitivity Functions for Normal and Low Vision. , 2016, 57, 198.		61
34	Baseline MNREAD Measures for Normally Sighted Subjects From Childhood to Old Age. , 2016, 57, 3836.		62
35	Indoor Spatial Updating with Reduced Visual Information. <i>PLoS ONE</i> , 2016, 11, e0150708.	2.5	17
36	Low Vision and Plasticity: Implications for Rehabilitation. <i>Annual Review of Vision Science</i> , 2016, 2, 321-343.	4.4	28

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37	Development of a Reading Accessibility Index Using the MNREAD Acuity Chart. JAMA Ophthalmology, 2016, 134, 398.	2.5	50
38	Reading Digital with Low Vision. Visible Language, 2016, 50, 102-125.	0.4	65
39	Comparing the visual spans for faces and letters. Journal of Vision, 2015, 15, 7.	0.3	9
40	Locating the cortical bottleneck for slow reading in peripheral vision. Journal of Vision, 2015, 15, 3.	0.3	7
41	Designing Media for Visually-Impaired Users of Refreshable Touch Displays: Possibilities and Pitfalls. IEEE Transactions on Haptics, 2015, 8, 248-257.	2.7	74
42	Incidental Memory of Younger and Older Adults for Objects Encountered in a Real World Context. PLoS ONE, 2014, 9, e99051.	2.5	5
43	Effect of pattern complexity on the visual span for Chinese and alphabet characters. Journal of Vision, 2014, 14, 6-6.	0.3	41
44	Prentice Medal Lecture 2013. Optometry and Vision Science, 2014, 91, 696-706.	1.2	3
45	Sensory factors limiting horizontal and vertical visual span for letter recognition. Journal of Vision, 2014, 14, 3-3.	0.3	22
46	Learning to Read Vertical Text in Peripheral Vision. Optometry and Vision Science, 2014, 91, 1097-1105.	1.2	10
47	Higher-contrast requirements for recognizing low-pass-filtered letters. Journal of Vision, 2013, 13, 13-13.	0.3	35
48	Recognition of Ramps and Steps by People with Low Vision. , 2013, 54, 288.		25
49	Sensory and cognitive influences on the training-related improvement of reading speed in peripheral vision. Journal of Vision, 2013, 13, 14-14.	0.3	34
50	Driving With Central Field Loss. JAMA Ophthalmology, 2013, 131, 393.	2.5	3
51	Combining Path Integration and Remembered Landmarks When Navigating without Vision. PLoS ONE, 2013, 8, e72170.	2.5	19
52	Indoor Navigation by People with Visual Impairment Using a Digital Sign System. PLoS ONE, 2013, 8, e76783.	2.5	68
53	Identification and Detection of Simple 3D Objects with Severely Blurred Vision. , 2012, 53, 7997.		6
54	Theories of reading should predict reading speed. Behavioral and Brain Sciences, 2012, 35, 297-298.	0.7	2

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55	Seeing Steps and Ramps with Simulated Low Acuity. <i>Optometry and Vision Science</i> , 2012, 89, E1299-E1307.	1.2	23
56	New Challenges in Low-Vision Research. <i>Optometry and Vision Science</i> , 2012, 89, 1244-1245.	1.2	7
57	Spatial-frequency requirements for reading revisited. <i>Vision Research</i> , 2012, 62, 139-147.	1.4	31
58	THE PREFERRED RETINAL LOCUS IN MACULAR DISEASE. <i>Retina</i> , 2011, 31, 2109-2114.	1.7	86
59	Spatial-frequency cutoff requirements for pattern recognition in central and peripheral vision. <i>Vision Research</i> , 2011, 51, 1995-2007.	1.4	34
60	Does print size matter for reading? A review of findings from vision science and typography. <i>Journal of Vision</i> , 2011, 11, 8-8.	0.3	180
61	Development of a training protocol to improve reading performance in peripheral vision. <i>Vision Research</i> , 2010, 50, 36-45.	1.4	45
62	Reading speed in the peripheral visual field of older adults: Does it benefit from perceptual learning?. <i>Vision Research</i> , 2010, 50, 860-869.	1.4	57
63	Assessment of Indoor Route-finding Technology for People who are Visually Impaired. <i>Journal of Visual Impairment and Blindness</i> , 2010, 104, 135-147.	0.7	41
64	Comparing reading speed for horizontal and vertical English text. <i>Journal of Vision</i> , 2010, 10, 1-17.	0.3	72
65	Training improves reading speed in peripheral vision: Is it due to attention?. <i>Journal of Vision</i> , 2010, 10, 18-18.	0.3	19
66	Incomplete Cortical Reorganization in Macular Degeneration. , 2010, 51, 6826.		57
67	Visual accessibility of ramps and steps. <i>Journal of Vision</i> , 2010, 10, 8-8.	0.3	24
68	Spatial learning and navigation using a virtual verbal display. <i>ACM Transactions on Applied Perception</i> , 2010, 7, 1-22.	1.9	8
69	Do image descriptions underlie word recognition in reading?. <i>British Journal of Psychology</i> , 2010, 101, 33-39.	2.3	1
70	Assessment of Indoor Route-finding Technology for People with Visual Impairment. <i>Journal of Visual Impairment and Blindness</i> , 2010, 104, 135-147.	0.7	9
71	Precision of position signals for letters. <i>Vision Research</i> , 2009, 49, 1948-1960.	1.4	40
72	Retinotopically Specific Reorganization of Visual Cortex for Tactile Pattern Recognition. <i>Current Biology</i> , 2009, 19, 596-601.	3.9	31

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73	Adaptive changes in visual cortex following prolonged contrast reduction. <i>Journal of Vision</i> , 2009, 9, 20-20.	0.3	70
74	Camera calibration for natural image studies and vision research. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2009, 26, 30.	1.5	20
75	Retention of high tactile acuity throughout the life span in blindness. <i>Perception &amp; Psychophysics</i> , 2008, 70, 1471-1488.	2.3	111
76	Relationship between visual span and reading performance in age-related macular degeneration. <i>Vision Research</i> , 2008, 48, 577-588.	1.4	61
77	The development of an automated sentence generator for the assessment of reading speed. <i>Behavioral and Brain Functions</i> , 2008, 4, 14.	3.3	13
78	The Low Vision Timeline: An Interactive History. <i>Visual Impairment Research</i> , 2008, 10, 67-75.	0.2	7
79	Nonlinear Mixed-Effects Modeling of MNREAD Data. , 2008, 49, 828.		51
80	Learning Building Layouts with Non-Geometric Visual Information: The Effects of Visual Impairment and Age. <i>Perception</i> , 2008, 37, 1677-1699.	1.2	29
81	To the Editor: Reliability Testing of the Dutch Version of the Radner Reading Charts. <i>Optometry and Vision Science</i> , 2008, 85, 1201-1202.	1.2	3
82	Effect of letter spacing on visual span and reading speed. <i>Journal of Vision</i> , 2007, 7, 2.	0.3	109
83	The case for the visual span as a sensory bottleneck in reading. <i>Journal of Vision</i> , 2007, 7, 9.	0.3	124
84	Variability in stepping direction explains the veering behavior of blind walkers.. <i>Journal of Experimental Psychology: Human Perception and Performance</i> , 2007, 33, 183-200.	0.9	50
85	Relationship between slow visual processing and reading speed in people with macular degeneration. <i>Vision Research</i> , 2007, 47, 2943-2955.	1.4	42
86	Developmental changes in the visual span for reading. <i>Vision Research</i> , 2007, 47, 2889-2900.	1.4	74
87	Wayfinding with words: spatial learning and navigation using dynamically updated verbal descriptions. <i>Psychological Research</i> , 2007, 71, 347-358.	1.7	54
88	Low-Vision Reading Speed: Influences of Linguistic Inference and Aging. <i>Optometry and Vision Science</i> , 2006, 83, 166-177.	1.2	30
89	Lost in virtual space: Studies in human and ideal spatial navigation.. <i>Journal of Experimental Psychology: Human Perception and Performance</i> , 2006, 32, 688-704.	0.9	57
90	The effect of print size on reading speed in dyslexia. <i>Journal of Research in Reading</i> , 2005, 28, 332-349.	2.0	84

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91	Variability in the Length and Frequency of Steps of Sighted and Visually Impaired Walkers. <i>Journal of Visual Impairment and Blindness</i> , 2005, 99, 741-754.	0.7	11
92	Functional and cortical adaptations to central vision loss. <i>Visual Neuroscience</i> , 2005, 22, 187-201.	1.0	161
93	Variability in the Length and Frequency of Steps of Sighted and Visually Impaired Walkers. <i>Journal of Visual Impairment and Blindness</i> , 2005, 99, 741-754.	0.7	4
94	Letter-recognition and reading speed in peripheral vision benefit from perceptual learning. <i>Vision Research</i> , 2004, 44, 695-709.	1.4	135
95	49.1: Invited Paper: Psychophysics of Reading: Implications for Displaying Text. <i>Digest of Technical Papers SID International Symposium</i> , 2004, 35, 1359.	0.3	2
96	Is word recognition different in central and peripheral vision?. <i>Vision Research</i> , 2003, 43, 2837-2846.	1.4	52
97	Preneural limitations on letter identification in central and peripheral vision. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2002, 19, 2349.	1.5	19
98	Spatial-frequency properties of letter identification in amblyopia. <i>Vision Research</i> , 2002, 42, 1571-1581.	1.4	21
99	Spatial-frequency characteristics of letter identification in central and peripheral vision. <i>Vision Research</i> , 2002, 42, 2137-2152.	1.4	112
100	Mr. Chips 2002: new insights from an ideal-observer model of reading. <i>Vision Research</i> , 2002, 42, 2219-2234.	1.4	111
101	Psychophysics of reading. <i>Vision Research</i> , 2001, 41, 725-743.	1.4	355
102	Spatial-frequency and contrast properties of crowding. <i>Vision Research</i> , 2001, 41, 1833-1850.	1.4	243
103	Comment on letter to the editor: is dyslexia caused by a visual deficit? (Skottun, B. C., 2001). <i>Vision Research</i> , 2001, 41, 3071.	1.4	1
104	Invariant Recognition of Natural Objects in the Presence of Shadows. <i>Perception</i> , 2000, 29, 383-398.	1.2	36
105	The effect of contrast on reading speed in dyslexia. <i>Vision Research</i> , 2000, 40, 1921-1935.	1.4	24
106	Saccade Planning in Reading With Central Scotomas: Comparison of Human and Ideal Performance. , 2000, , 667-682.		7
107	What Is Low Vision? A Re-evaluation of Definitions. <i>Optometry and Vision Science</i> , 1999, 76, 198-211.	1.2	94
108	Reading with a Head-Mounted Video Magnifier. <i>Optometry and Vision Science</i> , 1999, 76, 755-763.	1.2	29

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109	Measuring Braille reading speed with the MNREAD test. <i>Visual Impairment Research</i> , 1999, 1, 131-145.	0.2	62
110	The viewpoint complexity of an object-recognition task. <i>Vision Research</i> , 1998, 38, 2335-2350.	1.4	52
111	Psychophysics of reading. XVIII. The effect of print size on reading speed in normal peripheral vision. <i>Vision Research</i> , 1998, 38, 2949-2962.	1.4	230
112	Psychophysics of Reading. XVII. Low-Vision Performance with Four Types of Electronically Magnified Text. <i>Optometry and Vision Science</i> , 1998, 75, 183-190.	1.2	40
113	Motion Parallax: Effects of Blur, Contrast, and Field Size in Normal and Low Vision. <i>Perception</i> , 1997, 26, 1529-1538.	1.2	11
114	Mr. Chips: An ideal-observer model of reading.. <i>Psychological Review</i> , 1997, 104, 524-553.	3.8	220
115	Psychophysics of readingâ€™XVI. The visual span in normal and low vision. <i>Vision Research</i> , 1997, 37, 1999-2010.	1.4	215
116	The binocular computation of visual direction. <i>Vision Research</i> , 1996, 36, 27-41.	1.4	26
117	Psychophysics of Readingâ€™XIV. The Page Navigation Problem in Using Magnifiers. <i>Vision Research</i> , 1996, 36, 3723-3733.	1.4	51
118	<title>Currency features for visually impaired people</title>. , 1996, 2659, 44.		2
119	The â€™Uniqueness Constraintâ€™™ and Binocular Masking. <i>Perception</i> , 1995, 24, 49-65.	1.2	30
120	Printed cards for measuring low-vision reading speed. <i>Vision Research</i> , 1995, 35, 1939-1944.	1.4	103
121	Discrimination of compound gratings: Spatial-frequency channels or local features?. <i>Vision Research</i> , 1995, 35, 2685-2695.	1.4	24
122	Human efficiency for recognizing 3-D objects in luminance noise. <i>Vision Research</i> , 1995, 35, 3053-3069.	1.4	143
123	Human efficiency for recognizing and detecting low-pass filtered objects. <i>Vision Research</i> , 1995, 35, 2955-2966.	1.4	60
124	Pictorial depth cues: a new slant. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1995, 12, 17.	1.5	22
125	Stereo matching precedes dichoptic masking. <i>Vision Research</i> , 1994, 34, 1047-1060.	1.4	40
126	Color improves object recognition in normal and low vision.. <i>Journal of Experimental Psychology: Human Perception and Performance</i> , 1993, 19, 899-911.	0.9	195



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127	Multifocal Intraocular Lenses and Glare. <i>Optometry and Vision Science</i> , 1993, 70, 487-495.	1.2	11
128	Glenn A. Fry Award Lecture 1990: Three Perspectives on Low Vision Reading. <i>Optometry and Vision Science</i> , 1991, 68, 763-769.	1.2	30
129	Psychophysics of Reading-x. Effects of Age-related Changes in Vision. <i>Journal of Gerontology</i> , 1991, 46, P325-P331.	1.9	70
130	Psychophysics of reading XI Comparing color contrast and luminance contrast. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1990, 7, 2002.	1.5	106
131	Efficiency of graphical perception. <i>Perception &amp; Psychophysics</i> , 1989, 46, 365-374.	2.3	73
132	Stereopsis and contrast. <i>Vision Research</i> , 1989, 29, 989-1004.	1.4	266
133	Psychophysics of reading. VIâ€”The role of contrast in low vision. <i>Vision Research</i> , 1989, 29, 79-91.	1.4	145
134	Psychophysics of Reading. VIII. The Minnesota Low- Vision Reading Test. <i>Optometry and Vision Science</i> , 1989, 66, 843-853.	1.2	293
135	Sensory analysis in vision and audition. <i>Behavioral and Brain Sciences</i> , 1988, 11, 301-302.	0.7	42
136	Reply to J. H. Verbaken. <i>Optometry and Vision Science</i> , 1987, 64, 293-295.	1.2	0
137	Psychophysics of readingâ€”V. The role of contrast in normal vision. <i>Vision Research</i> , 1987, 27, 1165-1177.	1.4	284
138	Contrast discrimination in noise. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1987, 4, 391.	1.5	264
139	Tolerance to visual defocus. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1987, 4, 851.	1.5	131
140	Contrast discrimination in peripheral vision. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1987, 4, 1594.	1.5	50
141	Accommodation to stimuli in peripheral vision. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1987, 4, 1681.	1.5	30
142	Psychophysics of reading IV Wavelength effects in normal and low vision. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1986, 3, 40.	1.5	74
143	The importance of eye movements in the analysis of simple patterns. <i>Vision Research</i> , 1986, 26, 1111-1117.	1.4	96
144	Contrast Sensitivity Function as a Screening Test. <i>Optometry and Vision Science</i> , 1986, 63, 265-270.	1.2	15

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145	Psychophysics of readingâ€™I. Normal vision. <i>Vision Research</i> , 1985, 25, 239-252.	1.4	537
146	Psychophysics of readingâ€™II. Low vision. <i>Vision Research</i> , 1985, 25, 253-265.	1.4	394
147	Binocular contrast summationâ€™I. Detection and discrimination. <i>Vision Research</i> , 1984, 24, 373-383.	1.4	157
148	Binocular contrast summationâ€™II. Quadratic summation. <i>Vision Research</i> , 1984, 24, 385-394.	1.4	191
149	Symmetry and constancy in the perception of negative and positive luminance contrast. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 1984, 1, 309.	1.5	50
150	Learning unfamiliar voices.. <i>Journal of Experimental Psychology: Learning Memory and Cognition</i> , 1984, 10, 298-303.	0.9	70
151	Convergence accommodation. <i>Journal of the Optical Society of America</i> , 1983, 73, 332.	1.2	31
152	Light and dark bars; contrast discrimination. <i>Vision Research</i> , 1983, 23, 473-483.	1.4	89
153	Contrast detection and near-threshold discrimination in human vision. <i>Vision Research</i> , 1981, 21, 1041-1053.	1.4	281
154	Displacement detection in human vision. <i>Vision Research</i> , 1981, 21, 205-213.	1.4	93
155	A power law for perceived contrast in human vision. <i>Vision Research</i> , 1981, 21, 791-799.	1.4	45
156	A power law for contrast discrimination. <i>Vision Research</i> , 1981, 21, 457-467.	1.4	258
157	Binocular interactions in suprathreshold contrast perception. <i>Perception &amp; Psychophysics</i> , 1981, 30, 49-61.	2.3	121
158	Contrast masking in human vision. <i>Journal of the Optical Society of America</i> , 1980, 70, 1458.	1.2	1,095
159	Spatial frequency masking in human vision: binocular interactions. <i>Journal of the Optical Society of America</i> , 1979, 69, 838.	1.2	209
160	Space domain properties of a spatial frequency channel in human vision. <i>Vision Research</i> , 1978, 18, 959-969.	1.4	52
161	Sustained and transient mechanisms in human vision: Temporal and spatial properties. <i>Vision Research</i> , 1978, 18, 69-81.	1.4	413
162	Spatial-Frequency Masking with Briefly Pulsed Patterns. <i>Perception</i> , 1978, 7, 161-166.	1.2	7

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163	Adaptation to a spatial impulse: Implications for Fourier transform models of visual processing. <i>Vision Research</i> , 1976, 16, 1407-1418.	1.4	16
164	Psychophysics of Reading in Normal and Low Vision. , 0, , .		50