Philip J Kellman

List of Publications by Year
in descending order

75 papers	4,431 citations	147801 31 h-index	110387 64 g-index
79 all docs	79 docs citations	79 times ranked	1617 citing authors

#	Article	IF	Citations
1	A theory of visual interpolation in object perception. Cognitive Psychology, 1991, 23, 141-221.	2.2	770
2	Perception of partly occluded objects in infancy. Cognitive Psychology, 1983, 15, 483-524.	2.2	725
3	Strength of visual interpolation depends on the ratio of physically specified to total edge length. Perception & Psychophysics, 1992, 52, 97-106.	2.3	237
4	Deep convolutional networks do not classify based on global object shape. PLoS Computational Biology, 2018, 14, e1006613.	3.2	206
5	Perceptual learning and human expertise. Physics of Life Reviews, 2009, 6, 53-84.	2.8	122
6	Surface Completion Complements Boundary Interpolation in the Visual Integration of Partly Occluded Objects. Perception, 1997, 26, 1459-1479.	1.2	118
7	A common mechanism for illusory and occluded object completion.. Journal of Experimental Psychology: Human Perception and Performance, 1998, 24, 859-869.	0.9	109
8	Perceptual Learning Modules in Mathematics: Enhancing Studentsâ€™ Pattern Recognition, Structure Extraction, and Fluency. Topics in Cognitive Science, 2010, 2, 285-305.	1.9	107
9	Perception of partly occluded objects and illusory figures: Evidence for an identity hypothesis.. Journal of Experimental Psychology: Human Perception and Performance, 1992, 18, 106-120.	0.9	96
10	Perception of three-dimensional form by human infants. Perception & Psychophysics, 1984, 36, 353-358.	2.3	93
11	Infant Perception of Object Unity from Translatory Motion in Depth and Vertical Translation. Child Development, 1986, 57, 72.	3.0	92
12	Development of three-dimensional form perception.. Journal of Experimental Psychology: Human Perception and Performance, 1987, 13, 545-557.	0.9	90
13	Surface integration influences depth discrimination. Vision Research, 2000, 40, 1969-1978.	1.4	65
14	Object Interpolation in Three Dimensions.. Psychological Review, 2005, 112, 586-609.	3.8	64
15	Object and observer motion in the perception of objects by infants.. Journal of Experimental Psychology: Human Perception and Performance, 1987, 13, 586-593.	0.9	63
16	The role of discontinuities in the perception of subjective figures. Perception & Psychophysics, 1990, 48, 259-270.	2.3	62
17	Spatiotemporal boundary formation: Boundary, form, and motion perception from transformations of surface elements.. Journal of Experimental Psychology: General, 1994, 123, 3-20.	2.1	59
18	The Dynamic Specification of Surfaces and Boundaries. Perception, 1998, 27, 403-415.	1.2	59

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19	Perceptual Learning, Cognition, and Expertise. Psychology of Learning and Motivation - Advances in Research and Theory, 2013, 58, 117-165.	1.1	56
20	Kinetic subjective contours. Perception & Psychophysics, 1984, 35, 237-244.	2.3	55
21	Contour interpolation revealed by a dot localization paradigm. Vision Research, 2004, 44, 1799-1815.	1.4	54
22	Local features and global shape information in object classification by deep convolutional neural networks. Vision Research, 2020, 172, 46-61.	1.4	54
23	A theory of dynamic occluded and illusory object perception.. Journal of Experimental Psychology: General, 2006, 135, 513-541.	2.1	52
24	Applying perceptual and adaptive learning techniques for teaching introductory histopathology. Journal of Pathology Informatics, 2013, 4, 34.	1.7	47
25	Adaptive and Perceptual Learning Technologies in Medical Education and Training. Military Medicine, 2013, 178, 98-106.	0.8	42
26	Perceptual learning depends on perceptual constancy. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 2248-2253.	7.1	41
27	Perceiving Objects Across Gaps in Space and Time. Current Directions in Psychological Science, 1992, 1, 193-199.	5.3	39
28	Temporal Variations in Visual Completion: A Reflection of Spatial Limits?. Journal of Experimental Psychology: Human Perception and Performance, 2003, 29, 1211-1227.	0.9	37
29	Optical tearing in spatiotemporal boundary formation: When do local element motions produce boundaries, form, and global motion?. Spatial Vision, 1993, 7, 323-339.	1.4	36
30	A comparison of adaptive and fixed schedules of practice.. Journal of Experimental Psychology: General, 2016, 145, 897-917.	2.1	36
31	Spatio-temporal boundary formation: the role of local motion signals in boundary perception. Vision Research, 1997, 37, 1281-1293.	1.4	34
32	The role of three-dimensional depth cues in infants' perception of partly occluded objects. Infant and Child Development, 1994, 3, 187-191.	0.4	33
33	Geometric and Neural Models of Object Perception. Advances in Psychology, 2001, 130, 183-245.	0.1	33
34	Interpolation processes in object perception: Reply to Anderson (2007).. Psychological Review, 2007, 114, 488-502.	3.8	33
35	Training pattern recognition of skin lesion morphology, configuration, and distribution. Journal of the American Academy of Dermatology, 2015, 72, 489-495.	1.2	33
36	Forensic Comparison and Matching of Fingerprints: Using Quantitative Image Measures for Estimating Error Rates through Understanding and Predicting Difficulty. PLoS ONE, 2014, 9, e94617.	2.5	32

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37	Adaptive response-time-based category sequencing in perceptual learning. Vision Research, 2014, 99, 111-123.	1.4	32
38	Perceptual learning and the technology of expertise Studies in fraction learning and algebra. Pragmatics and Cognition, 2008, 16, 356-405.	0.4	32
39	A unified model of illusory and occluded contour interpolation. Vision Research, 2010, 50, 284-299.	1.4	31
40	Automatic feature-based grouping during multiple object tracking.. Journal of Experimental Psychology: Human Perception and Performance, 2013, 39, 1625-1637.	0.9	29
41	The Origins of Object Perception. , 1996, , 3-48.		28
42	Accelerating expertise: Perceptual and adaptive learning technology in medical learning. Medical Teacher, 2018, 40, 797-802.	1.8	28
43	Boundary Completion in Illusory Contours: Interpolation or Extrapolation?. Perception, 2003, 32, 985-999.	1.2	25
44	Attentional signatures of perception: Multiple object tracking reveals the automaticity of contour interpolation.. Journal of Experimental Psychology: Human Perception and Performance, 2011, 37, 685-698.	0.9	23
45	Classification images reveal spatiotemporal contour interpolation. Vision Research, 2007, 47, 3460-3475.	1.4	22
46	3-D Interpolation in Object Perception: Evidence From an Objective Performance Paradigm.. Journal of Experimental Psychology: Human Perception and Performance, 2005, 31, 558-583.	0.9	20
47	Separating Processes in Object Perception. Journal of Experimental Child Psychology, 2001, 78, 84-97.	1.4	19
48	Surface interpolation and 3D relatability. Journal of Vision, 2008, 8, 29.	0.3	18
49	Perceptual Learning Modules in Flight Training. Proceedings of the Human Factors and Ergonomics Society, 1994, 38, 1183-1187.	0.3	17
50	Is interpolation cognitively encapsulated? Measuring the effects of belief on Kanizsa shape discrimination and illusory contour formation. Cognition, 2012, 123, 404-418.	2.2	17
51	Abstract shape representation in human visual perception.. Journal of Experimental Psychology: General, 2018, 147, 1295-1308.	2.1	17
52	Ontogenesis of Space and Motion Perception. , 1995, , 327-364.		16
53	Interactions between spatial and spatiotemporal information in spatiotemporal boundary formation. Perception & Psychophysics, 1998, 60, 839-851.	2.3	16
54	Novel Education Modules Addressing the Underrepresentation of Skin of Color in Dermatology Training. Journal of Cutaneous Medicine and Surgery, 2022, 26, 17-24.	1.2	11

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55	Mastering Electrocardiogram Interpretation Skills Through a Perceptual and Adaptive Learning Module. AEM Education and Training, 2021, 5, e10454.	1.2	9
56	Modeling spatiotemporal boundary formation. Vision Research, 2016, 126, 131-142.	1.4	8
57	Differentiating global and local contour completion using a dot localization paradigm.. Journal of Experimental Psychology: Human Perception and Performance, 2016, 42, 1928-1946.	0.9	8
58	Reinterpreting Behavioral Receptive Fields: Lightness Induction Alters Visually Completed Shape. PLoS ONE, 2013, 8, e62505.	2.5	7
59	Constant curvature segments as building blocks of 2D shape representation.. Journal of Experimental Psychology: General, 2021, 150, 1556-1580.	2.1	6
60	The aperture capture illusion: Misperceived forms in dynamic occlusion displays.. Journal of Experimental Psychology: Human Perception and Performance, 2014, 40, 502-524.	0.9	5
61	From Flashes to Edges to Objects: Recovery of Local Edge Fragments Initiates Spatiotemporal Boundary Formation. Frontiers in Psychology, 2016, 7, 910.	2.1	5
62	Challenges in Understanding Visual Shape Perception and Representation: Bridging Subsymbolic and Symbolic Coding. Advances in Computer Vision and Pattern Recognition, 2013, , 249-274.	1.3	5
63	Postscript: Identity and constraints in models of object formation.. Psychological Review, 2007, 114, 502-508.	3.8	4
64	The Role of Constant Curvature in 2-D Contour Shape Representations. Perception, 2011, 40, 1290-1308.	1.2	4
65	Non-rigid illusory contours and global shape transformations defined by spatiotemporal boundary formation. Frontiers in Human Neuroscience, 2014, 8, 978.	2.0	4
66	Recovering metric properties of objects through spatiotemporal interpolation. Vision Research, 2014, 102, 80-88.	1.4	3
67	Perceptual Cues and Imagined Viewpoints Modulate Visual Search in Air Traffic Control Displays. Proceedings of the Human Factors and Ergonomics Society, 2009, 53, 1111-1115.	0.3	2
68	Spatiotemporal integration and contour interpolation revealed by a dot localization task with serial presentation paradigm. Japanese Psychological Research, 2010, 52, 268-280.	1.1	2
69	Perceptual Learning, Adaptive Learning, and Gamification: Educational Technologies for Pattern Recognition, Problem Solving, and Knowledge Retention in Medical Learning. , 2022, , 135-166.		2
70	Constant curvature modeling of abstract shape representation. PLoS ONE, 2021, 16, e0254719.	2.5	1
71	Comparing Adaptive and Random Spacing Schedules during Learning to Mastery Criteria. , 2020, 2020, 773-779.		1
72	Finding the Pope in the pizza: Abstract invariants and cognitive constraints on perceptual learning. Behavioral and Brain Sciences, 1998, 21, 30-30.	0.7	0

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73	Recursive Networks Reveal Illusory Contour Classification Images. Journal of Vision, 2019, 19, 241a.	0.3	0
74	The Psychophysics of Algebra Expertise: Mathematics Perceptual Learning Interventions Produce Durable Encoding Changes. , 2014, 36, 272-277.		0
75	Adaptive vs. Fixed Spacing of Learning Items: Evidence from Studies of Learning and Transfer in Chemistry Education. , 2020, 2020, 1598-1604.		0