Ralf Engbert

List of Publications by Year
in descending order

125 papers	7,620 citations	87843 38 h-index	56687 83 g-index
136 all docs	136 docs citations	136 times ranked	3388 citing authors

#	Article	IF	Citations
1	Microsaccades uncover the orientation of covert attention. Vision Research, 2003, 43, 1035-1045.	0.7	1,097
2	SWIFT: A Dynamical Model of Saccade Generation During Reading.. Psychological Review, 2005, 112, 777-813.	2.7	811
3	Microsaccades are triggered by low retinal image slip. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 7192-7197.	3.3	467
4	Tracking the mind during reading: The influence of past, present, and future words on fixation durations.. Journal of Experimental Psychology: General, 2006, 135, 12-35.	1.5	438
5	Length, frequency, and predictability effects of words on eye movements in reading. European Journal of Cognitive Psychology, 2004, 16, 262-284.	1.3	430
6	A dynamical model of saccade generation in reading based on spatially distributed lexical processing. Vision Research, 2002, 42, 621-636.	0.7	310
7	Microsaccades: a microcosm for research on oculomotor control, attention, and visual perception. Progress in Brain Research, 2006, 154, 177-192.	0.9	267
8	Microsaccade dynamics during covert attention. Vision Research, 2005, 45, 721-730.	0.7	216
9	CRISP: A computational model of fixation durations in scene viewing.. Psychological Review, 2010, 117, 382-405.	2.7	208
10	Microsaccades Keep the Eyes' Balance During Fixation. Psychological Science, 2004, 15, 431-431.	1.8	196
11	Toward a model of microsaccade generation: The case of microsaccadic inhibition. Journal of Vision, 2008, 8, 5-5.	0.1	189
12	Mislocated fixations during reading and the inverted optimal viewing position effect. Vision Research, 2005, 45, 2201-2217.	0.7	152
13	An integrated model of fixational eye movements and microsaccades. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, E765-70.	3.3	141
14	The zoom lens of attention: Simulating shuffled versus normal text reading using the SWIFT model. Visual Cognition, 2012, 20, 391-421.	0.9	118
15	Sequential Data Assimilation of the Stochastic SEIR Epidemic Model for Regional COVID-19 Dynamics. Bulletin of Mathematical Biology, 2021, 83, 1.	0.9	113
16	Crossmodal coupling of oculomotor control and spatial attention in vision and audition. Experimental Brain Research, 2005, 166, 427-439.	0.7	92
17	Your mind wanders weakly, your mind wanders deeply: Objective measures reveal mindless reading at different levels. Cognition, 2012, 125, 179-194.	1.1	83
18	SWIFT explorations of age differences in eye movements during reading. Neuroscience and Biobehavioral Reviews, 2006, 30, 872-884.	2.9	79

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19	Spatial statistics and attentional dynamics in scene viewing. Journal of Vision, 2015, 15, 14-14.	0.1	77
20	Current advances in SWIFT. Cognitive Systems Research, 2006, 7, 23-33.	1.9	70
21	Fixation durations before word skipping in reading. Psychonomic Bulletin and Review, 2005, 12, 132-138.	1.4	68
22	Microsaccade Orientation Supports Attentional Enhancement Opposite a Peripheral Cue: Commentary on Tse, Sheinberg, and Logothetis (2003). Psychological Science, 2004, 15, 705-707.	1.8	67
23	When do microsaccades follow spatial attention?. Attention, Perception, and Psychophysics, 2010, 72, 683-694.	0.7	66
24	Chance and chaos in population biologyâ€"Models of recurrent epidemics and food chain dynamics. Chaos, Solitons and Fractals, 1994, 4, 1147-1169.	2.5	63
25	The IOVP effect in mindless reading: Experiment and modeling. Vision Research, 2007, 47, 990-1002.	0.7	62
26	Fixational eye movements predict the perceived direction of ambiguous apparent motion. Journal of Vision, 2008, 8, 13-13.	0.1	61
27	Microsaccades Are an Index of Covert Attention. Psychological Science, 2007, 18, 364-366.	1.8	59
28	Modeling the Control of Fixational Eye Movements with Neurophysiological Delays. Physical Review Letters, 2007, 98, 138104.	2.9	55
29	Mathematical models of eye movements in reading: a possible role for autonomous saccades. Biological Cybernetics, 2001, 85, 77-87.	0.6	54
30	Computational Modeling of Collicular Integration of Perceptual Responses and Attention in Microsaccades. Journal of Neuroscience, 2012, 32, 8035-8039.	1.7	53
31	Microsaccades Are Coupled to Heartbeat. Journal of Neuroscience, 2016, 36, 1237-1241.	1.7	51
32	Spatial frequency processing in the central and peripheral visual field during scene viewing. Vision Research, 2016, 127, 186-197.	0.7	48
33	Tempo-induced transitions in polyrhythmic hand movements. Physical Review E, 1997, 56, 5823-5833.	0.8	47
34	Readers Use Bayesian Estimation for Eye Movement Control. Psychological Science, 2010, 21, 366-371.	1.8	46
35	The fast and the slow of skilled bimanual rhythm production: Parallel versus integrated timing.. Journal of Experimental Psychology: Human Perception and Performance, 2000, 26, 206-233.	0.7	45
36	Microsaccades are different from saccades in scene perception. Experimental Brain Research, 2010, 203, 753-757.	0.7	44

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37	Microsaccadic Responses Indicate Fast Categorization of Sounds: A Novel Approach to Study Auditory Cognition. Journal of Neuroscience, 2014, 34, 11152-11158.	1.7	42
38	Age-specific problems in rhythmic timing.. Psychology and Aging, 2001, 16, 12-30.	1.4	41
39	Mindless reading revisited: An analysis based on the SWIFT model of eye-movement control. Vision Research, 2009, 49, 322-336.	0.7	40
40	Control of fixation duration during scene viewing by interaction of foveal and peripheral processing. Journal of Vision, 2013, 13, 11-11.	0.1	40
41	ICAT: a computational model for the adaptive control of fixation durations. Psychonomic Bulletin and Review, 2014, 21, 907-934.	1.4	39
42	Microsaccadic modulation of response times in spatial attention tasks. Psychological Research, 2009, 73, 136-146.	1.0	36
43	A Framework for Modeling the Interaction of Syntactic Processing and Eye Movement Control. Topics in Cognitive Science, 2013, 5, 452-474.	1.1	36
44	Modeling fixation locations using spatial point processes. Journal of Vision, 2013, 13, 1-1.	0.1	35
45	The Effects of Expertise and Age on Rhythm Production: Adaptations to Timing and Sequencing Constraints. Brain and Cognition, 2002, 48, 179-194.	0.8	31
46	Binocular Coordination in Microsaccades. , 2003, , 103-117.		31
47	Scaling of horizontal and vertical fixational eye movements. Physical Review E, 2005, 71, 031909.	0.8	31
48	Temporal evolution of the central fixation bias in scene viewing. Journal of Vision, 2017, 17, 3.	0.1	30
49	Disentangling bottom-up versus top-down and low-level versus high-level influences on eye movements over time. Journal of Vision, 2019, 19, 1.	0.1	29
50	Oculomotor control in a sequential search task. Vision Research, 2007, 47, 2426-2443.	0.7	26
51	Hypothesis test for synchronization: Twin surrogates revisited. Chaos, 2009, 19, 015108.	1.0	26
52	Likelihood-based parameter estimation and comparison of dynamical cognitive models.. Psychological Review, 2017, 124, 505-524.	2.7	26
53	Self-Consistent Estimation of Mislocated Fixations during Reading. PLoS ONE, 2008, 3, e1534.	1.1	24
54	Eye movements during reading of randomly shuffled text. Vision Research, 2010, 50, 2600-2616.	0.7	24

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55	A theoretical analysis of the perceptual span based on SWIFT simulations of then+ 2 boundary paradigm. Visual Cognition, 2014, 22, 283-308.	0.9	24
56	Revising the link between microsaccades and the spatial cueing of voluntary attention. Vision Research, 2017, 133, 47-60.	0.7	24
57	Eye movements in a sequential scanning task: Evidence for distributed processing. Journal of Vision, 2012, 12, 5-5.	0.1	23
58	Small saccades versus microsaccades: Experimental distinction and model-based unification. Vision Research, 2016, 118, 132-143.	0.7	23
59	A self-avoiding walk with neural delays as a model of fixational eye movements. Scientific Reports, 2017, 7, 12958.	1.6	23
60	Parallel graded attention models of reading. , 2011, , .		23
61	Coupling of attention and saccades when viewing scenes with central and peripheral degradation. Journal of Vision, 2016, 16, 8.	0.1	19
62	Analysis of Attentional Bias towards Attractive and Unattractive Body Regions among Overweight Males and Females: An Eye-Movement Study. PLoS ONE, 2015, 10, e0140813.	1.1	19
63	SWIFT Explorations. , 2003, , 391-411.		17
64	Representational Models and Nonlinear Dynamics: Irreconcilable Approaches to Human Movement Timing and Coordination or Two Sides of the Same Coin? Introduction to the Special Issue on Movement Timing and Coordination. Brain and Cognition, 2002, 48, 1-6.	0.8	16
65	Testing for nonlinearity: the role of surrogate data. Chaos, Solitons and Fractals, 2002, 13, 79-84.	2.5	16
66	COMPLEXITY OF EYE MOVEMENTS IN READING. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2004, 14, 493-503.	0.7	16
67	On the launch-site effect for skipped words during reading. Vision Research, 2010, 50, 1532-1539.	0.7	16
68	No Evidence for a Saccadic Range Effect for Visually Guided and Memory-Guided Saccades in Simple Saccade-Targeting Tasks. PLoS ONE, 2016, 11, e0162449.	1.1	16
69	Symbolic dynamics of physiological synchronization: Examples from bimanual movements and cardiorespiratory interaction. Nonlinear Analysis: Theory, Methods & Applications, 1997, 30, 973-984.	0.6	15
70	Influence of initial fixation position in scene viewing. Vision Research, 2016, 129, 33-49.	0.7	15
71	A model of saccadic landing positions in reading under the influence of sensory noise. Visual Cognition, 2014, 22, 334-353.	0.9	14
72	Searchers adjust their eye-movement dynamics to target characteristics in natural scenes. Scientific Reports, 2019, 9, 1635.	1.6	14

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73	Modeling the effects of perisaccadic attention on gaze statistics during scene viewing. Communications Biology, 2020, 3, 727.	2.0	14
74	Noise-enhanced performance in reading. Neurocomputing, 2003, 50, 473-478.	3.5	12
75	Flick-Induced Flips in Perception. Neuron, 2006, 49, 168-170.	3.8	12
76	Persistence and phase synchronisation properties of fixational eye movements. European Physical Journal: Special Topics, 2008, 161, 207-223.	1.2	12
77	Phase-Synchronization Decay of Fixational Eye Movements. Annals of the New York Academy of Sciences, 2005, 1039, 484-488.	1.8	11
78	Saccadic facilitation by modulation of microsaccades in natural backgrounds. Attention, Perception, and Psychophysics, 2011, 73, 1029-1033.	0.7	10
79	Bayesian parameter estimation for the SWIFT model of eye-movement control during reading. Journal of Mathematical Psychology, 2020, 95, 102313.	1.0	10
80	A mathematical model of local and global attention in natural scene viewing. PLoS Computational Biology, 2020, 16, e1007880.	1.5	10
81	Differentiating between Verbal and Spatial Encoding using Eye-Movement Recordings. Quarterly Journal of Experimental Psychology, 2013, 66, 1840-1857.	0.6	9
82	A Bayesian approach to dynamical modeling of eye-movement control in reading of normal, mirrored, and scrambled texts.. Psychological Review, 2021, 128, 803-823.	2.7	9
83	Bayesian Selection of Markov Models for Symbol Sequences: Application to Microsaccadic Eye Movements. PLoS ONE, 2012, 7, e43388.	1.1	8
84	Synchronizing Movements with the Metronome: Nonlinear Error Correction and Unstable Periodic Orbits. Brain and Cognition, 2002, 48, 107-116.	0.8	7
85	An iterative algorithm for the estimation of the distribution of mislocated fixations during reading. , 2007, , 319-337.		7
86	How tight is the link between lexical processing and saccade programs?. Behavioral and Brain Sciences, 2003, 26, 491-492.	0.4	6
87	Noise-enhanced target discrimination under the influence of fixational eye movements and external noise. Chaos, 2009, 19, 015112.	1.0	6
88	Capture of the gaze does not capture the mind. Attention, Perception, and Psychophysics, 2012, 74, 1168-1182.	0.7	6
89	Fixation positions after skipping saccades: A single space makes a large difference. Attention, Perception, and Psychophysics, 2012, 74, 1556-1561.	0.7	6
90	Task-dependence in scene perception: Head unrestrained viewing using mobile eye-tracking. Journal of Vision, 2020, 20, 3.	0.1	6

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91	Modeling Qualitative Changes in Bimanual Movements. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1997, 07, 1441-1450.	0.7	5
92	How spatial frequencies and color drive object search in real-world scenes: A new eye-movement corpus. Journal of Vision, 2020, 20, 8.	0.1	5
93	No exception from Bayesâ€™ rule: The presence and absence of the range effect for saccades explained. Journal of Vision, 2020, 20, 15.	0.1	5
94	Synchronization Analysis and Recurrence in Complex Systems. , 0, , 231-264.		4
95	Spatial statistics for gaze patterns in scene viewing: Effects of repeated viewing. Journal of Vision, 2019, 19, 5.	0.1	4
96	Modulation of oculomotor control during reading of mirrored and inverted texts. Scientific Reports, 2020, 10, 4210.	1.6	4
97	Data assimilation in dynamical cognitive science. Trends in Cognitive Sciences, 2022, 26, 99-102.	4.0	4
98	The game of word skipping: Who are the competitors?. Behavioral and Brain Sciences, 2003, 26, 481-482.	0.4	3
99	Microsaccade characterization using the continuous wavelet transform and principal component analysis. Journal of Eye Movement Research, 2010, 3, .	0.5	3
100	Bayesian estimation of the scaling parameter of fixational eye movements. Europhysics Letters, 2012, 100, 40003.	0.7	2
101	Predictive modeling of parafoveal information processing during reading. Scientific Reports, 2021, 11, 12954.	1.6	2
102	Perception and motor control: The link between fixational eye movements and postural sway. Journal of Vision, 2004, 4, 655-655.	0.1	2
103	Reconstruction of eye movements during blinks. Chaos, 2008, 18, 013126.	1.0	1
104	Evaluating a Computational Model of Eye-Movement Control in Reading. , 2013, , 153-178.		1
105	Discriminative Viewer Identification using Generative Models of Eye Gaze. Procedia Computer Science, 2020, 176, 1348-1357.	1.2	1
106	Does Local Coherence Lead to Targeted Regressions and Illusions of Grammaticality?. Open Mind, 2021, 5, 1-17.	0.6	1
107	O processamento da anÃ¡fora pronominal em crianÃ§as com transtorno de dÃ©ficit de atenÃ§Ã£o e hiperatividade e em crianÃ§as dislÃ©xicas: um estudo atravÃ©s da anÃ¡lise dos movimentos oculares. Letras De Hoje, 2015, 50, 40.	0.0	1
108	Reducing the central fixation bias: The influence of scene preview. Journal of Vision, 2016, 16, 331.	0.1	1

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109	Gaze-contingent manipulation of the FVF demonstrates the importance of fixation duration for explaining search behavior. Behavioral and Brain Sciences, 2017, 40, e144.	0.4	0
110	Experimental test of Bayesian saccade targeting under reversed reading direction. Attention, Perception, and Psychophysics, 2020, 82, 1230-1240.	0.7	0
111	Dynamical Models In Neurocognitive Psychology. , 2021, , .		0
112	Attention correlates with saccade amplitude modulations caused by gaze-contingent filtering of the visual field. Journal of Vision, 2016, 16, 1274.	0.1	0
113	We know what we can see - peripheral visibility of search targets shapes eye movement behavior in natural scenes. Journal of Vision, 2017, 17, 1120.	0.1	0
114	Testing an Early Vision Model on Natural Image Stimuli. Journal of Vision, 2017, 17, 783.	0.1	0
115	Predicting fixation densities over time from early visual processing. Journal of Vision, 2018, 18, 1210.	0.1	0
116	Reading from right to left: oculomotor adaptations. Journal of Vision, 2018, 18, 1015.	0.1	0
117	The Effect of Visual Long-Term Memory on Eye Movements over Time. Journal of Vision, 2019, 19, 149a.	0.1	0
118	Scene Viewing and Spatial Statistics. , 2021, , 89-105.		0
119	Eye-Movement Control During Reading. , 2021, , 67-88.		0
120	Epilog: Dynamical Models of Cognition. , 2021, , 119-126.		0
121	Neural Coding. , 2021, , 1-16.		0
122	Sensorimotor Integration. , 2021, , 53-65.		0
123	Fixational Eye Movements. , 2021, , 17-39.		0
124	Microsaccades: Empirical Research and Methodological Advances - Introduction to Part 1 of the Thematic Special Issue. Journal of Eye Movement Research, 2020, 12, .	0.5	0
125	Potsdam Eye-Movement Corpus for Scene Memorization and Search With Color and Spatial-Frequency Filtering. Frontiers in Psychology, 2022, 13, 850482.	1.1	0