Tobias Elze

List of Publications by Year
in descending order

76 papers	1,349 citations	361413 20 h-index	434195 31 g-index
77 all docs	77 docs citations	77 times ranked	1221 citing authors

#	ARTICLE	IF	CITATIONS
1	Patterns of functional vision loss in glaucoma determined with archetypal analysis. Journal of the Royal Society Interface, 2015, 12, 20141118.	3.4	87
2	An Artificial Intelligence Approach to Detect Visual Field Progression in Glaucoma Based on Spatial Pattern Analysis. , 2019, 60, 365.		78
3	Systemic and Ocular Determinants of Peripapillary Retinal Nerve Fiber Layer Thickness Measurements in the European Eye Epidemiology (E3) Population. Ophthalmology, 2018, 125, 1526-1536.	5.2	62
4	Deep Learning of the Retina Enables Phenome- and Genome-Wide Analyses of the Microvasculature. Circulation, 2022, 145, 134-150.	1.6	57
5	The impact of artificial intelligence in the diagnosis and management of glaucoma. Eye, 2020, 34, 1-11.	2.1	47
6	Temporal Properties of Liquid Crystal Displays: Implications for Vision Science Experiments. PLoS ONE, 2012, 7, e44048.	2.5	46
7	Deficits in Long-Term Recognition Memory Reveal Dissociated Subtypes in Congenital Prosopagnosia. PLoS ONE, 2011, 6, e15702.	2.5	45
8	Sex-Specific Differences in Circumpapillary Retinal Nerve Fiber Layer Thickness. Ophthalmology, 2020, 127, 357-368.	5.2	43
9	Trends and Usage Patterns of Minimally Invasive Glaucoma Surgery in the United States. Ophthalmology Glaucoma, 2021, 4, 558-568.	1.9	38
10	Achieving precise display timing in visual neuroscience experiments. Journal of Neuroscience Methods, 2010, 191, 171-179.	2.5	37
11	Reversal of Glaucoma Hemifield Test Results and Visual Field Features in Glaucoma. Ophthalmology, 2018, 125, 352-360.	5.2	36
12	Characterization of Central Visual Field Loss in End-stage Glaucoma by Unsupervised Artificial Intelligence. JAMA Ophthalmology, 2020, 138, 190.	2.5	36
13	Misspecifications of Stimulus Presentation Durations in Experimental Psychology: A Systematic Review of the Psychophysics Literature. PLoS ONE, 2010, 5, e12792.	2.5	35
14	Artificial Intelligence Classification of Central Visual Field Patterns in Glaucoma. Ophthalmology, 2020, 127, 731-738.	5.2	33
15	Clinical Correlates of Computationally Derived Visual Field Defect Archetypes in Patients from a Glaucoma Clinic. Current Eye Research, 2017, 42, 568-574.	1.5	31
16	Agreement and Predictors of Discordance of 6 Visual Field Progression Algorithms. Ophthalmology, 2019, 126, 822-828.	5.2	31
17	Evaluation of the precision of contrast sensitivity function assessment on a tablet device. Scientific Reports, 2017, 7, 46706.	3.3	27
18	Age, ocular magnification, and circumpapillary retinal nerve fiber layer thickness. Journal of Biomedical Optics, 2017, 22, 1.	2.6	27

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19	Characteristics of p.Gln368Ter Myocilin Variant and Influence of Polygenic Risk on Glaucoma Penetrance in the UK Biobank. Ophthalmology, 2021, 128, 1300-1311.	5.2	27
20	Patterns of Retinal Nerve Fiber Layer Loss in Different Subtypes of Open Angle Glaucoma Using Spectral Domain Optical Coherence Tomography. Journal of Glaucoma, 2016, 25, 865-872.	1.6	24
21	Association Between Diabetes, Diabetic Retinopathy, and Glaucoma. Current Diabetes Reports, 2021, 21, 38.	4.2	24
22	An Artificial Intelligence Approach to Assess Spatial Patterns of Retinal Nerve Fiber Layer Thickness Maps in Glaucoma. Translational Vision Science and Technology, 2020, 9, 41.	2.2	23
23	New Precision Metrics for Contrast Sensitivity Testing. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 919-925.	6.3	22
24	Predicting eyes at risk for rapid glaucoma progression based on an initial visual field test using machine learning. PLoS ONE, 2021, 16, e0249856.	2.5	22
25	Age, Gender, and Laterality of Retinal Vascular Occlusion: A Retrospective Study from the IRIS® Registry. Ophthalmology Retina, 2022, 6, 161-171.	2.4	21
26	Photoreceptor Layer Thinning Is an Early Biomarker for Age-Related Macular Degeneration. Ophthalmology, 2022, 129, 694-707.	5.2	21
27	Relationship Between Central Retinal Vessel Trunk Location and Visual Field Loss in Glaucoma. American Journal of Ophthalmology, 2017, 176, 53-60.	3.3	20
28	Monitoring Glaucomatous Functional Loss Using an Artificial Intelligence–Enabled Dashboard. Ophthalmology, 2020, 127, 1170-1178.	5.2	20
29	Associations between Optic Nerve Head–Related Anatomical Parameters and Refractive Error over the Full Range of Glaucoma Severity. Translational Vision Science and Technology, 2017, 6, 9.	2.2	17
30	The Early Time Course of Compensatory Face Processing in Congenital Prosopagnosia. PLoS ONE, 2010, 5, e11482.	2.5	17
31	Predicting Refractive Outcome of Small Incision Lenticule Extraction for Myopia Using Corneal Properties. Translational Vision Science and Technology, 2018, 7, 11.	2.2	16
32	Renal function and lipid metabolism are major predictors of circumpapillary retinal nerve fiber layer thickness–the LIFE-Adult Study. BMC Medicine, 2021, 19, 202.	5.5	16
33	Race and Ethnicity Differences in Disease Severity and Visual Field Progression Among Glaucoma Patients. American Journal of Ophthalmology, 2022, 242, 69-76.	3.3	16
34	Ametropia, retinal anatomy, and OCT abnormality patterns in glaucoma. 1. Impacts of refractive error and interartery angle. Journal of Biomedical Optics, 2017, 22, 1.	2.6	14
35	Nonperfusion Area and Other Vascular Metrics by Wider Field Swept-Source OCT Angiography as Biomarkers of Diabetic Retinopathy Severity. Ophthalmology Science, 2022, 2, 100144.	2.5	14
36	Liquid crystal display response time estimation for medical applications. Medical Physics, 2009, 36, 4984-4990.	3.0	12

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37	A computational model of dysfunctional facial encoding in congenital prosopagnosia. Neural Networks, 2011, 24, 652-664.	5.9	12
38	An evaluation of organic light emitting diode monitors for medical applications: Great timing, but luminance artifacts. Medical Physics, 2013, 40, 092701.	3.0	12
39	The Interrelationship between Refractive Error, Blood Vessel Anatomy, and Glaucomatous Visual Field Loss. Translational Vision Science and Technology, 2018, 7, 4.	2.2	12
40	Usage Patterns of Minimally Invasive Glaucoma Surgery (MIGS) Differ by Glaucoma Type: IRIS Registry Analysis 2013â€"2018. Ophthalmic Epidemiology, 2022, 29, 443-451.	1.7	12
41	Baseline Age and Mean Deviation Affect the Rate of Glaucomatous Vision Loss. Journal of Glaucoma, 2020, 29, 31-38.	1.6	11
42	Impact of Natural Blind Spot Location on Perimetry. Scientific Reports, 2017, 7, 6143.	3.3	10
43	Norms of Interocular Circumpapillary Retinal Nerve Fiber Layer Thickness Differences at 768 Retinal Locations. Translational Vision Science and Technology, 2020, 9, 23.	2.2	9
44	Effectiveness of Trabeculectomy and Tube Shunt with versus without Concurrent Phacoemulsification. Ophthalmology Glaucoma, 2023, 6, 42-53.	1.9	9
45	Predicting Global Testâ€"Retest Variability of Visual Fields in Glaucoma. Ophthalmology Glaucoma, 2021, 4, 390-399.	1.9	8
46	Development and Comparison of Machine Learning Algorithms to Determine Visual Field Progression. Translational Vision Science and Technology, 2021, 10, 27.	2.2	8
47	Estimating the Severity of Visual Field Damage From Retinal Nerve Fiber Layer Thickness Measurements With Artificial Intelligence. Translational Vision Science and Technology, 2021, 10, 16.	2.2	8
48	Reading cognition from the eyesâ€"association of retinal nerve fiber layer thickness with cognitive performance in a population-based study. Brain Communications, 2021, 3, fcab258.	3.3	8
49	Variability and Power to Detect Progression of Different Visual Field Patterns. Ophthalmology Glaucoma, 2021, 4, 617-623.	1.9	7
50	Chemical and thermal ocular burns in the United States: An IRIS registry analysis. Ocular Surface, 2021, 21, 345-347.	4.4	7
51	Unsupervised Machine Learning Identifies Quantifiable Patterns of Visual Field Loss in Idiopathic Intracranial Hypertension. Translational Vision Science and Technology, 2021, 10, 37.	2.2	7
52	Chinese characters reveal impacts of prior experience on very early stages of perception. BMC Neuroscience, 2011, 12, 14.	1.9	5
53	Inter-Eye Association of Visual Field Defects in Glaucoma and Its Clinical Utility. Translational Vision Science and Technology, 2020, 9, 22.	2.2	5
54	Temporal Trends in the Treatment of Proliferative Diabetic Retinopathy. Ophthalmology Science, 2021, 1, 100037.	2.5	5

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55	Ametropia, retinal anatomy, and OCT abnormality patterns in glaucoma. 2. Impacts of optic nerve head parameters. Journal of Biomedical Optics, 2017, 22, 1.	2.6	5
56	Quantifying positional variation of retinal blood vessels in glaucoma. PLoS ONE, 2018, 13, e0193555.	2.5	5
57	Assessing Surface Shapes of the Optic Nerve Head and Peripapillary Retinal Nerve Fiber Layer in Glaucoma with Artificial Intelligence. Ophthalmology Science, 2022, , 100161.	2.5	5
58	Adjustable Suture Technique Is Associated with Fewer Strabismus Reoperations in the Intelligent Research in Sight Registry. Ophthalmology, 2022, 129, 1028-1033.	5.2	5
59	Three-dimensional Neuroretinal Rim Thickness and Visual Fields in Glaucoma: A Broken-stick Model. Journal of Glaucoma, 2020, 29, 952-963.	1.6	4
60	Archetypal Analysis Reveals Quantifiable Patterns of Visual Field Loss in Optic Neuritis. Translational Vision Science and Technology, 2022, 11, 27.	2.2	4
61	Background polygenic risk modulates the association between glaucoma and cardiopulmonary diseases and measures: an analysis from the UK Biobank. British Journal of Ophthalmology, 2023, 107, 1112-1118.	3.9	4
62	Unsupervised Machine Learning Shows Change in Visual Field Loss in the Idiopathic Intracranial Hypertension Treatment Trial. Ophthalmology, 2022, 129, 903-911.	5.2	4
63	Risk Factors for Glaucoma Drainage Device Revision or Removal Using the IRIS Registry. American Journal of Ophthalmology, 2022, 240, 302-320.	3.3	4
64	A predictive approach to nonparametric inference for adaptive sequential sampling of psychophysical experiments. Journal of Mathematical Psychology, 2012, 56, 179-195.	1.8	3
65	The Effect of Ametropia on Glaucomatous Visual Field Loss. Journal of Clinical Medicine, 2021, 10, 2796.	2.4	3
66	Machine Learning in the Detection of the Glaucomatous Disc and Visual Field. Seminars in Ophthalmology, 2019, 34, 232-242.	1.6	2
67	Structure-Function Mapping Using a Three-Dimensional Neuroretinal Rim Parameter Derived From Spectral Domain Optical Coherence Tomography Volume Scans. Translational Vision Science and Technology, 2021, 10, 28.	2.2	1
68	Patterns of retinal nerve fiber layer loss in patients with glaucoma identified by deep archetypal analysis. , 2020, , .		1
69	Improving Visual Field Forecasting by Correcting for the Effects of Poor Visual Field Reliability. Translational Vision Science and Technology, 2022, 11, 27.	2.2	1
70	P1-7: Modern Display Technology in Vision Science: Assessment of OLED and LCD Monitors for Visual Experiments. I-Perception, 2012, 3, 621-621.	1.4	0
71	Reply. Ophthalmology, 2018, 125, e66-e67.	5.2	0
72	Reply. Ophthalmology, 2019, 126, e78-e79.	5.2	0

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73	Impact of anatomical parameters on optical coherence tomography retinal nerve fiber layer thickness abnormality patterns. Proceedings of SPIE, 2017, , .	0.8	0
74	Combining retinal nerve fiber layer thickness with individual retinal blood vessel locations allows modeling of central vision loss in glaucoma. Proceedings of SPIE, 2017, , .	0.8	0
75	The relationship between 3D morphology of optic disc and spatial patterns of visual field loss in glaucoma. Proceedings of SPIE, 2017, , .	0.8	0
76	Impact of the Affordable Care Act on Glaucoma Severity at First Presentation. Ophthalmic Epidemiology, 2023, 30, 326-329.	1.7	0