

# Zhenzhen Liu

## List of Publications by Year in descending order

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98  
papers

2,174  
citations

430874

18  
h-index

276875

41  
g-index

105  
all docs

105  
docs citations

105  
times ranked

2544  
citing authors

#	ARTICLE	IF	CITATIONS
1	Prevalence of depression and depressive symptoms among outpatients: a systematic review and meta-analysis. <i>BMJ Open</i> , 2017, 7, e017173.	1.9	278
2	An artificial intelligence platform for the multihospital collaborative management of congenital cataracts. <i>Nature Biomedical Engineering</i> , 2017, 1, .	22.5	234
3	Lens regeneration using endogenous stem cells with gain of visual function. <i>Nature</i> , 2016, 531, 323-328.	27.8	171
4	Diagnostic Efficacy and Therapeutic Decision-making Capacity of an Artificial Intelligence Platform for Childhood Cataracts in Eye Clinics: A Multicentre Randomized Controlled Trial. <i>EClinicalMedicine</i> , 2019, 9, 52-59.	7.1	117
5	The Diagnostic Value of MR Imaging in Differentiating T Staging of Bladder Cancer: A Meta-Analysis. <i>Radiology</i> , 2018, 286, 502-511.	7.3	97
6	Prediction of myopia development among Chinese school-aged children using refraction data from electronic medical records: A retrospective, multicentre machine learning study. <i>PLoS Medicine</i> , 2018, 15, e1002674.	8.4	93
7	Universal artificial intelligence platform for collaborative management of cataracts. <i>British Journal of Ophthalmology</i> , 2019, 103, 1553-1560.	3.9	87
8	Localization and diagnosis framework for pediatric cataracts based on slit-lamp images using deep features of a convolutional neural network. <i>PLoS ONE</i> , 2017, 12, e0168606.	2.5	72
9	Implementation of artificial intelligence in medicine: Status analysis and development suggestions. <i>Artificial Intelligence in Medicine</i> , 2020, 102, 101780.	6.5	53
10	Dense anatomical annotation of slit-lamp images improves the performance of deep learning for the diagnosis of ophthalmic disorders. <i>Nature Biomedical Engineering</i> , 2020, 4, 767-777.	22.5	42
11	Comparative analysis of image classification methods for automatic diagnosis of ophthalmic images. <i>Scientific Reports</i> , 2017, 7, 41545.	3.3	41
12	An Interpretable and Expandable Deep Learning Diagnostic System for Multiple Ocular Diseases: Qualitative Study. <i>Journal of Medical Internet Research</i> , 2018, 20, e11144.	4.3	41
13	Characteristics and factors associated with intraocular lens tilt and decentration after cataract surgery. <i>Journal of Cataract and Refractive Surgery</i> , 2020, 46, 1126-1131.	1.5	39
14	Automatic diagnosis of imbalanced ophthalmic images using a cost-sensitive deep convolutional neural network. <i>BioMedical Engineering OnLine</i> , 2017, 16, 132.	2.7	36
15	A practical model for the identification of congenital cataracts using machine learning. <i>EBioMedicine</i> , 2020, 51, 102621.	6.1	28
16	Accuracy of New Generation Intraocular Lens Calculation Formulas in Vitrectomized Eyes. <i>American Journal of Ophthalmology</i> , 2020, 217, 81-90.	3.3	27
17	Effectiveness of an Ophthalmic Hospital-Based Virtual Service during the COVID-19 Pandemic. <i>Ophthalmology</i> , 2021, 128, 942-945.	5.2	25
18	Prevalence of myopic macular degeneration worldwide: a systematic review and meta-analysis. <i>British Journal of Ophthalmology</i> , 2020, 104, 1748-1754.	3.9	23

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19	Artificial intelligence manages congenital cataract with individualized prediction and telehealth computing. <i>Npj Digital Medicine</i> , 2020, 3, 112.	10.9	22
20	Prevalence and time trends of refractive error in Chinese children: A systematic review and meta-analysis. <i>Journal of Global Health</i> , 2021, 11, 08006.	2.7	21
21	Improvement of Uveal and Capsular Biocompatibility of Hydrophobic Acrylic Intraocular Lens by Surface Grafting with 2-Methacryloyloxyethyl Phosphorylcholine-Methacrylic Acid Copolymer. <i>Scientific Reports</i> , 2017, 7, 40462.	3.3	20
22	A Novel Congenital Cataract Category System Based on Lens Opacity Locations and Relevant Anterior Segment Characteristics. , 2016, 57, 6389.		19
23	Impairment of the Ubiquitin-Proteasome Pathway in RPE Alters the Expression of Inflammation Related Genes. <i>Advances in Experimental Medicine and Biology</i> , 2014, 801, 237-250.	1.6	18
24	Predicting the progression of ophthalmic disease based on slit-lamp images using a deep temporal sequence network. <i>PLoS ONE</i> , 2018, 13, e0201142.	2.5	18
25	Loss-of-function mutations in <i>FREM2</i> disrupt eye morphogenesis. <i>Experimental Eye Research</i> , 2019, 181, 302-312.	2.6	18
26	Prevalence of Corneal Astigmatism and Anterior Segmental Biometry Characteristics Before Surgery in Chinese Congenital Cataract Patients. <i>Scientific Reports</i> , 2016, 6, 22092.	3.3	17
27	The Structure of the Lens and Its Associations with the Visual Quality. <i>BMJ Open Ophthalmology</i> , 2020, 5, e000459.	1.6	17
28	Extracellular vesicles promote epithelial-to-mesenchymal transition of lens epithelial cells under oxidative stress. <i>Experimental Cell Research</i> , 2021, 398, 112362.	2.6	17
29	Monitoring and Morphologic Classification of Pediatric Cataract Using Slit-Lamp-Adapted Photography. <i>Translational Vision Science and Technology</i> , 2017, 6, 2.	2.2	15
30	Proteomics analysis and proteogenomic characterization of different physiopathological human lenses. <i>BMC Ophthalmology</i> , 2017, 17, 253.	1.4	14
31	Attitudes towards medical artificial intelligence talent cultivation: an online survey study. <i>Annals of Translational Medicine</i> , 2020, 8, 708-708.	1.7	14
32	Determinants of intraocular lens tilt and decentration after cataract surgery. <i>Annals of Translational Medicine</i> , 2020, 8, 921-921.	1.7	14
33	Artificial intelligence-tutoring problem-based learning in ophthalmology clerkship. <i>Annals of Translational Medicine</i> , 2020, 8, 700-700.	1.7	14
34	In-the-Bag Versus Ciliary Sulcus Secondary Intraocular Lens Implantation for Pediatric Aphakia: A Prospective Comparative Study. <i>American Journal of Ophthalmology</i> , 2022, 236, 183-192.	3.3	14
35	Discrimination of the behavioural dynamics of visually impaired infants via deep learning. <i>Nature Biomedical Engineering</i> , 2019, 3, 860-869.	22.5	13
36	Accuracy of intraocular lens power calculations in paediatric eyes. <i>Clinical and Experimental Ophthalmology</i> , 2020, 48, 301-310.	2.6	13

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37	Fluid-jet technique to polish the posterior capsule for phacoemulsification surgeries: efficacy and safety evaluation. <i>Journal of Cataract and Refractive Surgery</i> , 2020, 46, 1508-1514.	1.5	13
38	Clinically Significant Intraocular Lens Decentration and Tilt in Highly Myopic Eyes: A Swept-Source Optical Coherence Tomography Study. <i>American Journal of Ophthalmology</i> , 2022, 235, 46-55.	3.3	13
39	Distributions of crystalline lens tilt and decentration and associated factors in age-related cataract. <i>Journal of Cataract and Refractive Surgery</i> , 2021, 47, 1296-1301.	1.5	13
40	Early-Onset Posterior Capsule Opacification: Incidence, Severity, and Risk Factors. <i>Ophthalmology and Therapy</i> , 2022, 11, 113-123.	2.3	13
41	Liu et al. reply. <i>Nature</i> , 2018, 556, E3-E4.	27.8	12
42	A human-in-the-loop deep learning paradigm for synergic visual evaluation in children. <i>Neural Networks</i> , 2020, 122, 163-173.	5.9	12
43	Incidence of and Risk Factors for Suspected Glaucoma and Glaucoma After Congenital and Infantile Cataract Surgery: A Longitudinal Study in China. <i>Journal of Glaucoma</i> , 2020, 29, 46-52.	1.6	12
44	Genetic associations of anti-vascular endothelial growth factor therapy response in age-related macular degeneration: a systematic review and meta-analysis. <i>Acta Ophthalmologica</i> , 2022, 100, .	1.1	12
45	Corneal Biometric Features and Their Association With Axial Length in High Myopia. <i>American Journal of Ophthalmology</i> , 2022, 238, 45-51.	3.3	12
46	Lens regeneration in humans: using regenerative potential for tissue repairing. <i>Annals of Translational Medicine</i> , 2020, 8, 1544-1544.	1.7	11
47	Artificial intelligence deciphers codes for color and odor perceptions based on large-scale chemoinformatic data. <i>GigaScience</i> , 2020, 9, .	6.4	11
48	Real-Time Imaging of Incision-Related Descemet Membrane Detachment During Cataract Surgery. <i>JAMA Ophthalmology</i> , 2021, 139, 150.	2.5	11
49	Spatial Technology Assessment of Green Space Exposure and Myopia. <i>Ophthalmology</i> , 2022, 129, 113-117.	5.2	11
50	Visual Outcome and Related Factors in Bilateral Total Congenital Cataract Patients: A Prospective Cohort Study. <i>Scientific Reports</i> , 2016, 6, 31307.	3.3	10
51	Preoperative profile of inflammatory factors in aqueous humor correlates with postoperative inflammatory response in patients with congenital cataract. <i>Molecular Vision</i> , 2018, 24, 414-424.	1.1	10
52	Patient participation in free cataract surgery: a cross-sectional study of the low-income elderly in urban China. <i>BMJ Open</i> , 2016, 6, e011061.	1.9	9
53	Interocular anatomical and visual functional differences in pediatric patients with unilateral cataracts. <i>BMC Ophthalmology</i> , 2016, 16, 192.	1.4	9
54	Timing and approaches in congenital cataract surgery: a randomised controlled trial. <i>Lancet</i> , The, 2016, 388, S52.	13.7	8

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55	Perforating ocular fishhook trauma: a case report. <i>Australasian journal of optometry, The</i> , 2018, 101, 297-298.	1.3	8
56	Comparison of radius of anterior lens surface curvature measurements in vivo using the anterior segment optical coherence tomography and Scheimpflug imaging. <i>Annals of Translational Medicine</i> , 2020, 8, 177-177.	1.7	8
57	Objective quantification of lens nuclear opacities using swept-source anterior segment optical coherence tomography. <i>British Journal of Ophthalmology</i> , 2022, 106, 790-794.	3.9	8
58	Automatic classification of heterogeneous slit-illumination images using an ensemble of cost-sensitive convolutional neural networks. <i>Annals of Translational Medicine</i> , 2021, 9, 550-550.	1.7	8
59	Real-world visual outcomes of cataract surgery based on population-based studies: a systematic review. <i>British Journal of Ophthalmology</i> , 2023, 107, 1056-1065.	3.9	8
60	Enhancement of Ubiquitin Conjugation Activity Reduces Intracellular Aggregation of V76D Mutant $^{13}\text{D}$ -Crystallin. , 2012, 53, 6655.		7
61	Developmental profile of ocular refraction in patients with congenital cataract: a prospective cohort study. <i>Lancet, The</i> , 2016, 388, S54.	13.7	7
62	Systemically modeling the relationship between climate change and wheat aphid abundance. <i>Science of the Total Environment</i> , 2019, 674, 392-400.	8.0	7
63	Characteristics and Risk Factors of Intraocular Lens Tilt and Decentration of Phacoemulsification After Pars Plana Vitrectomy. <i>Translational Vision Science and Technology</i> , 2021, 10, 26.	2.2	7
64	Agreement of Anterior Segment Parameter Measurements With CASIA 2 and IOLMaster 700. <i>Frontiers in Medicine</i> , 2022, 9, 777443.	2.6	7
65	Prevalence and Determinants Associated With Spectacle-Wear Compliance in Aphakic Infants. <i>Translational Vision Science and Technology</i> , 2018, 7, 5.	2.2	6
66	An artificial intelligent platform for live cell identification and the detection of cross-contamination. <i>Annals of Translational Medicine</i> , 2020, 8, 697-697.	1.7	6
67	Axial Length Change in Pseudophakic Eyes Measured by IOLMaster 700. <i>Translational Vision Science and Technology</i> , 2021, 10, 29.	2.2	6
68	Dynamic response to initial stage blindness in visual system development. <i>Clinical Science</i> , 2017, 131, 1515-1527.	4.3	5
69	Construction and implications of structural equation modeling network for pediatric cataract: a data mining research of rare diseases. <i>BMC Ophthalmology</i> , 2017, 17, 74.	1.4	5
70	Real-world big data demonstrates prevalence trends and developmental patterns of myopia in China: a retrospective, multicenter study. <i>Annals of Translational Medicine</i> , 2021, 9, 554-554.	1.7	5
71	Predicting the 10-year risk of cataract surgery using machine learning techniques on questionnaire data: findings from the 45 and Up Study. <i>British Journal of Ophthalmology</i> , 2022, 106, 1503-1507.	3.9	5
72	Incidence of Incision-Related Descemet Membrane Detachment Using Phacoemulsification With Trapezoid vs Conventional 2.2-mm Clear Corneal Incision. <i>JAMA Ophthalmology</i> , 2021, 139, 1228.	2.5	5

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73	The value and implementation of routine ophthalmic examination in the era of HAART. <i>EClinicalMedicine</i> , 2021, 31, 100646.	7.1	4
74	Accuracy of Intraocular Lens Calculation Formulas in Patients Undergoing Combined Phakic Intraocular Lens Removal and Cataract Surgery. <i>American Journal of Ophthalmology</i> , 2022, 234, 241-249.	3.3	4
75	In-vivo Lens Biometry Using the Novel Ultrasound Biomicroscopy. <i>Frontiers in Medicine</i> , 2022, 9, 777645.	2.6	4
76	Evaluation of Intraocular Lens Tilt and Decentration in Congenital Ectopia Lentis by the Pentacam Scheimpflug System. <i>Journal of Ophthalmology</i> , 2022, 2022, 1-6.	1.3	4
77	Longitudinal Changes of Axial Length and Associated Factors in Congenital Ectopia Lentis Patients. <i>Journal of Ophthalmology</i> , 2022, 2022, 1-7.	1.3	4
78	Practical pattern of surgical timing of childhood cataract in China: A cross-sectional database study. <i>International Journal of Surgery</i> , 2019, 62, 56-61.	2.7	3
79	Developmental characteristics of the cytokine profile in aqueous humor and its relationship with the inflammatory response in children. <i>Annals of Translational Medicine</i> , 2020, 8, 1542-1542.	1.7	3
80	Hypertension affects the treatment of wet age-related macular degeneration. <i>Acta Ophthalmologica</i> , 2021, 99, 871-876.	1.1	3
81	Characteristics of Corneal Higher-Order Aberrations in Congenital Ectopia Lentis Patients. <i>Translational Vision Science and Technology</i> , 2021, 10, 24.	2.2	3
82	Impairments of Visual Function and Ocular Structure in Patients With Unilateral Posterior Lens Opacity. <i>Translational Vision Science and Technology</i> , 2018, 7, 9.	2.2	2
83	Study to establish visual acuity norms with Teller Acuity Cards II for infants from southern China. <i>Eye</i> , 2021, 35, 2787-2792.	2.1	2
84	Profiles of intraocular higher-order aberrations in healthy phakic eyes: prospective cross-sectional study. <i>Annals of Translational Medicine</i> , 2020, 8, 850-850.	1.7	2
85	The associations of population mobility in HIV disease severity and mortality rate in China. <i>Annals of Translational Medicine</i> , 2021, 9, 315-315.	1.7	2
86	Height, weight and body mass index of children with congenital cataracts before surgical treatment. <i>BMC Ophthalmology</i> , 2017, 17, 119.	1.4	1
87	Clinical characteristics of young adult cataract patients: a 10-year retrospective study of the Zhongshan Ophthalmic Center. <i>BMJ Open</i> , 2018, 8, e020234.	1.9	1
88	A sparkling cataract. <i>BMJ: British Medical Journal</i> , 2019, , k5212.	2.3	1
89	Effect of High Myopia on Dynamic Changes of Anterior Angle After Pharmacologic Mydriasis in Cataract Patients: A SS-ASOCT Study. <i>Translational Vision Science and Technology</i> , 2021, 10, 25.	2.2	1
90	Body mass index is not associated with early onset cataract in the 45 and Up cohort study. <i>Annals of Translational Medicine</i> , 2021, 9, 0-0.	1.7	1

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91	Pigmented posterior lenticonus in unilateral development cataract. American Journal of Ophthalmology, 2022, 240, e3-e4.	3.3	1
92	Characteristics of Anterior Segment in Congenital Ectopia Lentis: An SS-OCT Study. Journal of Ophthalmology, 2022, 2022, 1-7.	1.3	1
93	The Detrimental Effect of Noisy Visual Input on the Visual Development of Human Infants. IScience, 2020, 23, 100803.	4.1	0
94	Findings from the 45 and Up Study: smoking is not associated with the risk of early-onset cataract. Annals of Translational Medicine, 2021, 9, 1077-1077.	1.7	0
95	Cataract Surgery in Children with Anomalies of the Uvea. , 2017, , 209-222.		0
96	Time to talk about parents of ill children. Annals of Translational Medicine, 2019, 7, S233-S233.	1.7	0
97	Modified organized ophthalmology pre-internship in China. Annals of Translational Medicine, 2020, 8, 1426.	1.7	0
98	Associations Among Outdoor Time, Skin Tanning, and the Risk of Surgically Treated Cataract for Australians 45 to 65 Years of Age. Translational Vision Science and Technology, 2022, 11, 3.	2.2	0