Qian Liu

List of Publications by Year
in descending order

122 papers	3,904 citations	159585 30 h-index	138484 58 g-index
124 all docs	124 docs citations	124 times ranked	4590 citing authors

#	Article	IF	Citations
1	Combining high-throughput phenotyping and genome-wide association studies to reveal natural genetic variation in rice. Nature Communications, 2014, 5, 5087.	12.8	490
2	Micro-Optical Sectioning Tomography to Obtain a High-Resolution Atlas of the Mouse Brain. Science, 2010, 330, 1404-1408.	12.6	463
3	Plant phenomics and high-throughput phenotyping: accelerating rice functional genomics using multidisciplinary technologies. Current Opinion in Plant Biology, 2013, 16, 180-187.	7.1	216
4	High-Throughput Phenotyping and QTL Mapping Reveals the Genetic Architecture of Maize Plant Growth. Plant Physiology, 2017, 173, 1554-1564.	4.8	179
5	Genome-Wide Association Studies of Image Traits Reveal Genetic Architecture of Drought Resistance in Rice. Molecular Plant, 2018, 11, 789-805.	8.3	151
6	Panicle-SEG: a robust image segmentation method for rice panicles in the field based on deep learning and superpixel optimization. Plant Methods, 2017, 13, 104.	4.3	134
7	A Novel Design and Optimization Method of an LCL Filter for a Shunt Active Power Filter. IEEE Transactions on Industrial Electronics, 2014, 61, 4000-4010.	7.9	132
8	Transgenic expression of plastidic glutamine synthetase increases nitrogen uptake and yield in wheat. Plant Biotechnology Journal, 2018, 16, 1858-1867.	8.3	101
9	A novel machine-vision-based facility for the automatic evaluation of yield-related traits in rice. Plant Methods, 2011, 7, 44.	4.3	95
10	Laser speckle imaging of blood flow in microcirculation. Physics in Medicine and Biology, 2004, 49, 1347-1357.	3.0	88
11	Genome-wide association study of rice (Oryza sativaL.) leaf traits with a high-throughput leaf scorer. Journal of Experimental Botany, 2015, 66, 5605-5615.	4.8	79
12	Improving Crop Nitrogen Use Efficiency Toward Sustainable Green Revolution. Annual Review of Plant Biology, 2022, 73, 523-551.	18.7	65
13	Metabolism-enhanced tumor localization by fluorescence imaging: in vivo animal studies. Optics Letters, 2003, 28, 2070.	3.3	60
14	Weighted least squares support vector machine local region method for nonlinear time series prediction. Applied Soft Computing Journal, 2010, 10, 562-566.	7.2	59
15	A high-throughput stereo-imaging system for quantifying rape leaf traits during the seedling stage. Plant Methods, 2017, 13, 7.	4.3	59
16	SysPTM 2.0: an updated systematic resource for post-translational modification. Database: the Journal of Biological Databases and Curation, 2014, 2014, bau025-bau025.	3.0	58
17	THE DEVELOPMENT AND APPLICATION OF THE VISIBLE CHINESE HUMAN MODEL FOR MONTE CARLO DOSE CALCULATIONS. Health Physics, 2008, 94, 118-125.	0.5	55
18	Combining high-throughput micro-CT-RGB phenotyping and genome-wide association study to dissect the genetic architecture of tiller growth in rice. Journal of Experimental Botany, 2019, 70, 545-561.	4.8	54

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19	Determination of rice panicle numbers during heading by multi-angle imaging. Crop Journal, 2015, 3, 211-219.	5.2	53
20	Metabolic imaging of tumors using intrinsic and extrinsic fluorescent markers. Biosensors and Bioelectronics, 2004, 20, 643-650.	10.1	52
21	Rapid Reconstruction of 3D Neuronal Morphology from Light Microscopy Images with Augmented Rayburst Sampling. PLoS ONE, 2013, 8, e84557.	2.5	51
22	High-throughput measurement of rice tillers using a conveyor equipped with x-ray computed tomography. Review of Scientific Instruments, 2011, 82, 025102.	1.3	50
23	Indian-Ink Perfusion Based Method for Reconstructing Continuous Vascular Networks in Whole Mouse Brain. PLoS ONE, 2014, 9, e88067.	2.5	49
24	Fast discrimination and counting of filled/unfilled rice spikelets based on bi-modal imaging. Computers and Electronics in Agriculture, 2011, 75, 196-203.	7.7	38
25	Controlled synthesis of Cu-based SAPO-18/34 intergrowth zeolites for selective catalytic reduction of NOx by ammonia. Journal of Hazardous Materials, 2021, 414, 125543.	12.4	37
26	Morphological and Molecular Differences in Two Strains of Ustilago esculenta. Current Microbiology, 2011, 62, 44-54.	2.2	34
27	An integrated hyperspectral imaging and genome-wide association analysis platform provides spectral and genetic insights into the natural variation in rice. Scientific Reports, 2017, 7, 4401.	3.3	32
28	Preparation of sulfur-free exfoliated graphite at a low exfoliation temperature. Materials Letters, 2007, 61, 1832-1834.	2.6	31
29	Combining UAVâ€RGB highâ€throughput field phenotyping and genomeâ€wide association study to reveal genetic variation of rice germplasms in dynamic response to drought stress. New Phytologist, 2021, 232, 440-455.	7.3	31
30	TRAIL-induced apoptosis proceeding from caspase-3-dependent and -independent pathways in distinct HeLa cells. Biochemical and Biophysical Research Communications, 2006, 346, 1136-1141.	2.1	30
31	Monte Carlo simulations for external neutron dosimetry based on the visible Chinese human phantom. Physics in Medicine and Biology, 2007, 52, 7367-7383.	3.0	30
32	An image-based rat model for Monte Carlo organ dose calculations. Medical Physics, 2008, 35, 3759-3764.	3.0	30
33	Organ dose calculations by Monte Carlo modeling of the updated VCH adult male phantom against idealized external proton exposure. Physics in Medicine and Biology, 2008, 53, 3697-3722.	3.0	30
34	Advanced features of whole body sectioned images: Virtual Chinese Human. Clinical Anatomy, 2010, 23, 523-529.	2.7	29
35	Advanced endoscopic methods in gastrointestinal diseases: a systematic review. Quantitative Imaging in Medicine and Surgery, 2019, 9, 905-920.	2.0	29
36	Highâ€throughput phenotyping accelerates the dissection of the dynamic genetic architecture of plant growth and yield improvement in rapeseed. Plant Biotechnology Journal, 2020, 18, 2345-2353.	8.3	29

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37	High-throughput volumetric reconstruction for 3D wheat plant architecture studies. Journal of Innovative Optical Health Sciences, 2016, 09, 1650037.	1.0	27
38	Rice panicle length measuring system based on dual-camera imaging. Computers and Electronics in Agriculture, 2013, 98, 158-165.	7.7	26
39	Nondestructive 3D Image Analysis Pipeline to Extract Rice Grain Traits Using X-Ray Computed Tomography. Plant Phenomics, 2020, 2020, 3414926.	5.9	25
40	Skeletal dosimetry in a voxelâ€based rat phantom for internal exposures to photons and electrons. Medical Physics, 2010, 37, 2167-2178.	3.0	24
41	An integrated rice panicle phenotyping method based on X-ray and RGB scanning and deep learning. Crop Journal, 2021, 9, 42-56.	5.2	23
42	Construction and visualization of high-resolution three-dimensional anatomical structure datasets for Chinese digital human. Science Bulletin, 2008, 53, 1848-1854.	9.0	22
43	Near-infrared probe-based confocal microendoscope for deep-tissue imaging. Biomedical Optics Express, 2018, 9, 5011.	2.9	22
44	Five-lens, easy-to-implement miniature objective for a fluorescence confocal microendoscope. Optics Express, 2016, 24, 473.	3.4	21
45	Accurate Digitization of the Chlorophyll Distribution of Individual Rice Leaves Using Hyperspectral Imaging and an Integrated Image Analysis Pipeline. Frontiers in Plant Science, 2017, 8, 1238.	3.6	21
46	Improving coordination of plant growth and nitrogen metabolism for sustainable agriculture. ABIOTECH, 2020, 1, 255-275.	3.9	20
47	A high-resolution anatomical rat atlas. Journal of Anatomy, 2006, 209, 707-708.	1.5	19
48	Multiresolution analysis of pathological changes in cerebral venous dynamics in newborn mice with intracranial hemorrhage: adrenorelated vasorelaxation. Physiological Measurement, 2014, 35, 1983-1999.	2.1	19
49	A Confocal Endoscope for Cellular Imaging. Engineering, 2015, 1, 351-360.	6.7	19
50	Acceleration of CT reconstruction for wheat tiller inspection based on adaptive minimum enclosing rectangle. Computers and Electronics in Agriculture, 2012, 85, 123-133.	7.7	18
51	A hyperspectral imaging system for an accurate prediction of the above-ground biomass of individual rice plants. Review of Scientific Instruments, 2013, 84, 095107.	1.3	18
52	Shanghai Score. Chinese Medical Journal, 2017, 130, 2650-2660.	2.3	18
53	Preparation of Nylon-6/flake graphite derivatives composites with antistatic property and thermal stability. Composites Part A: Applied Science and Manufacturing, 2012, 43, 1038-1043.	7.6	17
54	Bowtie filtration for dedicated cone beam CT of the head and neck: a simulation study. British Journal of Radiology, 2013, 86, 20130002.	2.2	17

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55	Integrating viscoelastic mass spring dampers into position-based dynamics to simulate soft tissue deformation in real time. Royal Society Open Science, 2018, 5, 171587.	2.4	17
56	Mir-331-3p Inhibits PRRSV-2 Replication and Lung Injury by Targeting PRRSV-2 ORF1b and Porcine TNF-Î±. Frontiers in Immunology, 2020, 11, 547144.	4.8	17
57	Nanoparticle-based approaches to target the lymphatic system for antitumor treatment. Cellular and Molecular Life Sciences, 2021, 78, 5139-5161.	5.4	17
58	Temporal clustering analysis of cerebral blood flow activation maps measured by laser speckle contrast imaging. Journal of Biomedical Optics, 2005, 10, 024019.	2.6	13
59	Comparison of absorbed fractions of electrons and photons using three kinds of computational phantoms of rat. Applied Physics Letters, 2010, 97, .	3.3	13
60	Construction of boundary-surface-based Chinese female astronaut computational phantom and proton dose estimation. Journal of Radiation Research, 2013, 54, 383-397.	1.6	13
61	Real-time inextensible surgical thread simulation. International Journal of Computer Assisted Radiology and Surgery, 2018, 13, 1019-1035.	2.8	13
62	Development of a Rat Computational Phantom Using Boundary Representation Method for Monte Carlo Simulation in Radiological Imaging. Proceedings of the IEEE, 2009, 97, 2006-2014.	21.3	12
63	Development of Chinese reference man deformable surface phantom and its application to the influence of physique on electromagnetic dosimetry. Physics in Medicine and Biology, 2015, 60, 6833-6846.	3.0	12
64	Identifying Prognostic Features by Bottom-Up Approach and Correlating to Drug Repositioning. PLoS ONE, 2015, 10, e0118672.	2.5	12
65	An integrative analysis platform for multiple neural spike train data. Journal of Neuroscience Methods, 2008, 172, 303-311.	2.5	11
66	Genetic Relationships Among Panicle Characteristics of Rice (Oryza sativa L.) Using Unconditional and Conditional QTL Analyses. Journal of Plant Biology, 2009, 52, 259-267.	2.1	11
67	Evaluation of S-values and dose distributions for⁹⁰Y,¹³¹I,¹⁶⁶Ho, and¹⁸⁸Re in seven lobes of the rat liver. Medical Physics, 2012, 39, 1462-1472.	3.0	10
68	Panicle-3D: A low-cost 3D-modeling method for rice panicles based on deep learning, shape from silhouette, and supervoxel clustering. Crop Journal, 2022, 10, 1386-1398.	5.2	10
69	Adaptive region of interest method for analytical micro-CT reconstruction. Journal of X-Ray Science and Technology, 2011, 19, 23-33.	1.0	8
70	A Medical Application Integrating Remote 3D Visualization Tools to Access Picture Archiving and Communication System on Mobile Devices. Journal of Medical Systems, 2014, 38, 44.	3.6	8
71	A Web Service System Supporting Three-dimensional Post-processing of Medical Images Based on WADO Protocol. Journal of Medical Systems, 2015, 39, 6.	3.6	8
72	500â€‰â€‰Î¼m field-of-view probe-based confocal microendoscope for large-area visualization in the gastrointestinal tract. Photonics Research, 2021, 9, 1829.	7.0	8

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73	Deep learningâ€based 3D MRI contrastâ€enhanced synthesis from a 2D noncontrast T2Flair sequence. Medical Physics, 2022, 49, 4478-4493.	3.0	8
74	Development of a whole-feeding and automatic rice thresher for single plant. Mathematical and Computer Modelling, 2013, 58, 684-690.	2.0	7
75	High yield and efficient expression and purification of the human 5-HT3A receptor. Acta Pharmacologica Sinica, 2015, 36, 1024-1032.	6.1	7
76	Parallel Visualization of Visible Chinese Human with Extremely Large Datasets. , 2005, 2005, 5172-5.		6
77	Visible continuum pulses based on enhanced dispersive wave generation for endogenous fluorescence imaging. Biomedical Optics Express, 2017, 8, 4026.	2.9	6
78	Accurate Neuronal Soma Segmentation Using 3D Multi-Task Learning U-Shaped Fully Convolutional Neural Networks. Frontiers in Neuroanatomy, 2020, 14, 592806.	1.7	6
79	PE-DLS: a novel method for performing real-time full-body motion reconstruction in VR based on Vive trackers. Virtual Reality, 2022, 26, 1391-1407.	6.1	6
80	China Physiome Project: A Comprehensive Framework for Anatomical and Physiological Databases From the China Digital Human and the Visible Rat. Proceedings of the IEEE, 2009, 97, 1969-1976.	21.3	5
81	Influence of dentures on SAR in the visible Chinese human head voxel phantom exposed to a mobile phone at 900 and 1800â€‰MHz. Bioelectromagnetics, 2012, 33, 508-517.	1.6	5
82	Myocardial contractile and metabolic properties of familial hypertrophic cardiomyopathy caused by cardiac troponin I gene mutations: a simulation study. Experimental Physiology, 2012, 97, 155-169.	2.0	5
83	Virtual Laparoscopic Training System Based on VCH Model. Journal of Medical Systems, 2017, 41, 58.	3.6	5
84	Touching Soma Segmentation Based on the Rayburst Sampling Algorithm. Neuroinformatics, 2017, 15, 383-393.	2.8	5
85	Design and evaluation of a portable continuous-wave NIR topography instrument. , 2006, 6047, 212.		4
86	Using deep learning algorithms to perform accurate spectral classification. Optik, 2021, 231, 166423.	2.9	4
87	A nondestructive method for estimating the total green leaf area of individual rice plants using multi-angle color images. Journal of Innovative Optical Health Sciences, 2015, 08, 1550002.	1.0	3
88	High-Throughput Estimation of Yield for Individual Rice Plant Using Multi-angle RGB Imaging. IFIP Advances in Information and Communication Technology, 2015, , 1-12.	0.7	3
89	2D phased array fluorescence wireless localizer in breast cancer detection. , 0, , .		2
90	Laser speckle contrast imaging: monitoring blood flow dynamics and vascular structure of photodynamic therapy. , 2005, , .		2

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91	A novel approach to remote access picture archiving and communication system on mobile devices over wireless networks. , 2012, , .		2
92	Red bone marrow dose calculations in radiotherapy of prostate cancer based on the updated VCH adult male phantom. Physics in Medicine and Biology, 2014, 59, 1815-1830.	3.0	2
93	The influence of physique on dose conversion coefficients for idealised external photon exposures: a comparison of doses for Chinese male phantoms with 10th, 50th and 90th percentile anthropometric parameters. Journal of Radiation Research, 2017, 58, 737-744.	1.6	2
94	Analysis of aluminum protective effect for female astronauts in solar particle events. Nuclear Technology and Radiation Protection, 2017, 32, 44-51.	0.8	2
95	Development of Chinese adult male mathematical phantom and external radiation dose calculations. Qiangjiguang Yu Lizishu/High Power Laser and Particle Beams, 2013, 25, 182-188.	0.0	2
96	PocketMaize: An Android-Smartphone Application for Maize Plant Phenotyping. Frontiers in Plant Science, 2021, 12, 770217.	3.6	2
97	A Semantic Web model of GO and its annotations. Science Bulletin, 2008, 53, 568-575.	1.7	1
98	Human physiome based on the high-resolution dataset of human body structure. Progress in Natural Science: Materials International, 2008, 18, 921-925.	4.4	1
99	Effective method for automatic contour extraction in computerized tomography reconstruction. Journal of Electronic Imaging, 2008, 17, 013016.	0.9	1
100	A method of improving position precision based on fuzzy control. , 2009, , .		1
101	Computational study on cortical spreading depression based on a generalized cellular automaton model. Proceedings of SPIE, 2009, , .	0.8	1
102	Cerebral venous dynamics in newborn mice with intracranial hemorrhage studied using wavelets. , 2015, , .		1
103	Detrended fluctuation analysis of cerebral venous dynamics in newborn mice with intracranial hemorrhage. , 2015, , .		1
104	Monte Carlo Simulations for Dosimetry in Prostate Radiotherapy with Different Intravesical Volumes and Planning Target Volume Margins. PLoS ONE, 2016, 11, e0159497.	2.5	1
105	COMPARISON OF ORGAN DOSES IN HUMAN PHANTOMS: VARIATIONS DUE TO BODY SIZE AND POSTURE. Radiation Protection Dosimetry, 2017, 174, ncw081.	0.8	1
106	A high-throughput imaging facility for evaluation of oilseed rape biomass related traits. , 2016, , .		1
107	Low-frequency phased-array 2D fluorescence localization in breast cancer detection. , 2003, 5254, 195.		0
108	Determination of subsurface tumor localization in animal models with near-infrared (NIR) fluorescence imaging. , 2003, 4955, 322.		0

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109	Micro-CT images reconstruction and 3D visualization for small animal studying. , 2005, , .		0
110	The Development of Small Laboratory Animal Atlas. , 2005, 2005, 1472-5.		0
111	<title>Laser speckle techniques for studying thermally induced dynamics of blood perfusion of mice's mesentery</title>. , 2006, 6163, 13.		0
112	A digital rat atlas of sectional anatomy. , 2006, 6047, 219.		0
113	Monitoring thermally induced blood flow change of rat mesentery by laser speckle imaging. , 2006, , .		0
114	<title>A high-resolution optical imaging system for obtaining the serial transverse section images of biologic tissue</title>. , 2007, , .		0
115	Conversion coefficients for external monoenergetic photon beams in the visible Chinese human model. , 2008, , .		0
116	Rapid tracking of vascular tree in angiography images based on adaptive sampling. , 2013, , .		0
117	A service protocol for post-processing of medical images on the mobile device. , 2014, , .		0
118	The importance of gastrointestinal presentation for understanding respiratory virus infection in patients with acute respiratory illness: a cross-sectional study in Guangzhou. Journal of Epidemiological Research, 2018, 4, 18.	0.6	0
119	CROSS-SECTION IMAGING OF RICE TILLERS BY MCT SYSTEM. , 2008, , .		0
120	CT AND MRI IMAGE FUSION IN RADIOTHERAPY FOR TRANSCRANIAL TUMOR. , 2008, , .		0
121	A micron precision fiber bundle coupler for confocal endomicroscope. , 2020, , .		0
122	No-reference image quality assessment for confocal endoscopy images with perceptual local descriptor. Journal of Biomedical Optics, 2022, 27, .	2.6	0