

# Xin Chen

## List of Publications by Year in descending order

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109  
papers

1,530  
citations

394286

19  
h-index

377752

34  
g-index

111  
all docs

111  
docs citations

111  
times ranked

1727  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multiparametric Quantitative US Examination of Liver Fibrosis: A Feature-Engineering and Machine-Learning Based Analysis. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 715-726.	3.9	6
2	3D Lightweight Network for Simultaneous Registration and Segmentation of Organs-at-Risk in CT Images of Head and Neck Cancer. IEEE Transactions on Medical Imaging, 2022, 41, 951-964.	5.4	7
3	Multi-scale information with attention integration for classification of liver fibrosis in B-mode US image. Computer Methods and Programs in Biomedicine, 2022, 215, 106598.	2.6	10
4	A Dual-Modal Imaging Method Combining Ultrasound and Electromagnetism for Simultaneous Measurement of Tissue Elasticity and Electrical Conductivity. IEEE Transactions on Biomedical Engineering, 2022, 69, 2499-2511.	2.5	10
5	Diagnosis of significant liver fibrosis in patients with chronic hepatitis B using a deep learning-based data integration network. Hepatology International, 2022, 16, 526-536.	1.9	6
6	Programmable and monitorable intradermal vaccine delivery using ultrasound perforation array. International Journal of Pharmaceutics, 2022, 617, 121595.	2.6	3
7	Image quality improvement of magneto-acousto-electrical tomography with Barker coded excitation. Biomedical Signal Processing and Control, 2022, 77, 103823.	3.5	7
8	An in vitro study on the antitumor effect of sonodynamic therapy using sinoporphyrin sodium on human glioblastoma cells. Ultrasonics, 2021, 110, 106272.	2.1	11
9	Thyroid nodule recognition using a joint convolutional neural network with information fusion of ultrasound images and radiofrequency data. European Radiology, 2021, 31, 5001-5011.	2.3	18
10	Acupoint-brain (acubrain) mapping: Common and distinct cortical language regions activated by focused ultrasound stimulation on two language-relevant acupoints. Brain and Language, 2021, 215, 104920.	0.8	3
11	Rapid rotational magneto-acousto-electrical tomography with filtered back-projection algorithm based on plane waves. Physics in Medicine and Biology, 2021, 66, 095002.	1.6	15
12	Considerable effects of imaging sequences, feature extraction, feature selection, and classifiers on radiomics-based prediction of microvascular invasion in hepatocellular carcinoma using magnetic resonance imaging. Quantitative Imaging in Medicine and Surgery, 2021, 11, 1836-1853.	1.1	24
13	Viscoelasticity measured by shear wave elastography in a rat model of nonalcoholic fatty liver disease: comparison with dynamic mechanical analysis. BioMedical Engineering OnLine, 2021, 20, 45.	1.3	3
14	Accurate and Feasible Deep Learning Based Semi-Automatic Segmentation in CT for Radiomics Analysis in Pancreatic Neuroendocrine Neoplasms. IEEE Journal of Biomedical and Health Informatics, 2021, 25, 3498-3506.	3.9	17
15	Corneal Lamb wave imaging for quantitative assessment of collagen cross-linking treatment based on comb-push ultrasound shear elastography. Ultrasonics, 2021, 116, 106478.	2.1	3
16	Diagnosis of Significant Liver Fibrosis by Using a DCNN Model With Fusion of Features From US B-Mode Image and Nakagami Parametric Map: An Animal Study. IEEE Access, 2021, 9, 89300-89310.	2.6	5
17	Observation of the Blood-Brain Barrier Opening by Ultrasound with Microbubbles on Mice Using Intravital Imaging with Two-photon Microscopy. , 2021, , .		2
18	Preoperative Prediction of Pancreatic Neuroendocrine Neoplasms Grading Based on Enhanced Computed Tomography Imaging: Validation of Deep Learning with a Convolutional Neural Network. Neuroendocrinology, 2020, 110, 338-350.	1.2	43

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19	Ultrasound with microbubbles improves memory, ameliorates pathology and modulates hippocampal proteomic changes in a triple transgenic mouse model of Alzheimer's disease. <i>Theranostics</i> , 2020, 10, 11794-11819.	4.6	55
20	Opto-acoustic synergistic irradiation for vaporization of natural melanin-cored nanodroplets at safe energy levels and efficient sono-chemo-photothermal cancer therapy. <i>Theranostics</i> , 2020, 10, 10448-10465.	4.6	17
21	Novel reconstruction algorithm of magnetoacoustic tomography based on ring transducer array for acoustic speed inhomogeneous tissues. <i>Medical Physics</i> , 2020, 47, 3533-3544.	1.6	8
22	Orientation-independent Feature Matching (OIFM) for Multimodal Retinal Image Registration. <i>Biomedical Signal Processing and Control</i> , 2020, 60, 101957.	3.5	1
23	An in vitro study on sonodynamic treatment of human colon cancer cells using sinoporphyrin sodium as sonosensitizer. <i>BioMedical Engineering OnLine</i> , 2020, 19, 52.	1.3	17
24	Feasibility of multi-parametric magnetic resonance imaging combined with machine learning in the assessment of necrosis of osteosarcoma after neoadjuvant chemotherapy: a preliminary study. <i>BMC Cancer</i> , 2020, 20, 322.	1.1	19
25	Focused ultrasound stimulation on human language-related acupoints modulates brain activity in cortical language processing regions. <i>Human Behaviour and Brain</i> , 2020, , 22-27.	0.4	2
26	Optimization of multi-angle Magneto-Acousto-Electrical Tomography (MAET) based on a numerical method. <i>Mathematical Biosciences and Engineering</i> , 2020, 17, 2864-2880.	1.0	10
27	Application of Information Technology in Medical Ultrasound Engineering. , 2020, , 351-366.		0
28	In Vivo Monitoring of Corneal Viscoelasticity in Rabbits with Collagen Cross-linking Treatment using Ultrasound Elastography. , 2020, , .		0
29	Sonomagnetic Stimulation of Live Cells: Electrophysiologic, Biochemical and Behavioral Responses. <i>Ultrasound in Medicine and Biology</i> , 2019, 45, 2970-2983.	0.7	2
30	The influence on acoustic frequency characteristics of conductivity gradual-varying tissue in magnetoacoustic tomography (MAT). <i>Computers in Biology and Medicine</i> , 2019, 104, 105-110.	3.9	3
31	In vivo assessment of the mechanical properties of crystalline lenses in a rabbit model using ultrasound elastography: Effects of ultrasound frequency and age. <i>Experimental Eye Research</i> , 2019, 184, 258-265.	1.2	7
32	A B-Scan Imaging Method of Conductivity Variation Detection for Magneto-“Acousto” Electrical Tomography. <i>IEEE Access</i> , 2019, 7, 26881-26891.	2.6	14
33	Automatic Tracking of Muscle Cross-Sectional Area Using Convolutional Neural Networks with Ultrasound. <i>Journal of Ultrasound in Medicine</i> , 2019, 38, 2901-2908.	0.8	16
34	Controlled Ultrasound Erosion for Transdermal Delivery and Hepatitis B Immunization. <i>Ultrasound in Medicine and Biology</i> , 2019, 45, 1208-1220.	0.7	12
35	Automatic Muscle Fiber Orientation Tracking in Ultrasound Images Using a New Adaptive Fading Bayesian Kalman Smoother. <i>IEEE Transactions on Image Processing</i> , 2019, 28, 3714-3727.	6.0	11
36	Sonodynamic Therapy on Intracranial Glioblastoma Xenografts Using Sinoporphyrin Sodium Delivered by Ultrasound with Microbubbles. <i>Annals of Biomedical Engineering</i> , 2019, 47, 549-562.	1.3	39

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37	Quantitative analysis of non-alcoholic fatty liver in rats via combining multiple ultrasound parameters. <i>Mathematical Biosciences and Engineering</i> , 2019, 16, 4546-4558.	1.0	7
38	Study on the Antitumor Effect of Sonodynamic Therapy on Nude Mice Bearing Intracranial Glioblastoma Xenografts. , 2018, , .		0
39	A 2D Magneto-Acousto-Electrical Tomography Method to Detect Conductivity Variation Using Multifocus Image Method. <i>Sensors</i> , 2018, 18, 2373.	2.1	15
40	Noninvasive assessment of age-related stiffness of crystalline lenses in a rabbit model using ultrasound elastography. <i>BioMedical Engineering OnLine</i> , 2018, 17, 75.	1.3	24
41	A Novel Method to Detect Interface of Conductivity Changes in Magneto-Acousto-Electrical Tomography Using Chirp Signal Excitation Method. <i>IEEE Access</i> , 2018, 6, 33503-33512.	2.6	9
42	Role of acoustic radiation force impulse imaging elastography in the assessment of steatohepatitis and fibrosis in rat models. <i>Medical Engineering and Physics</i> , 2018, 59, 30-35.	0.8	4
43	Temperature dependent of viscoelasticity measurement on fat emulsion phantom using acoustic radiation force elasticity imaging method. <i>Technology and Health Care</i> , 2018, 26, 449-458.	0.5	1
44	Recent Progress in Automatic Processing of Skeletal Muscle Morphology Using Ultrasound: A Brief Review. <i>Current Medical Imaging</i> , 2018, 14, 179-185.	0.4	9
45	Liver tissue metabolic profiling and pathways of non-alcoholic steatohepatitis in rats. <i>Hepatology Research</i> , 2017, 47, 1484-1493.	1.8	6
46	Assessment of liver fibrosis in chronic hepatitis B via multimodal data. <i>Neurocomputing</i> , 2017, 253, 169-176.	3.5	8
47	Development of a Simple Noninvasive Model to Predict Significant Fibrosis in Patients with Chronic Hepatitis B: Combination of Ultrasound Elastography, Serum Biomarkers, and Individual Characteristics. <i>Clinical and Translational Gastroenterology</i> , 2017, 8, e84.	1.3	7
48	Dynamic mechanical analysis to assess viscoelasticity of liver tissue in a rat model of nonalcoholic fatty liver disease. <i>Medical Engineering and Physics</i> , 2017, 44, 79-86.	0.8	20
49	Viscoelastic properties of normal rat liver measured by ultrasound elastography: Comparison with oscillatory rheometry. <i>Biorheology</i> , 2017, 53, 193-207.	1.2	4
50	Evaluation of Non-alcoholic Fatty Liver Disease Using Acoustic Radiation Force Impulse Imaging Elastography in Rat Models. <i>Ultrasound in Medicine and Biology</i> , 2017, 43, 2619-2628.	0.7	8
51	Improved shear wave motion detection using coded excitation for transient elastography. <i>Scientific Reports</i> , 2017, 7, 44483.	1.6	4
52	In-vivo assessing the age-related stiffness of crystalline lens in rabbits by acoustic radiation force based ultrasound elastography. , 2017, , .		0
53	An ultrasound transient elastography system with coded excitation. <i>BioMedical Engineering OnLine</i> , 2017, 16, 87.	1.3	2
54	Model-dependent and model-independent approaches for evaluating hepatic fibrosis in rat liver using shearwave dispersion ultrasound vibrometry. <i>Medical Engineering and Physics</i> , 2017, 39, 66-72.	0.8	11

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55	Ex vivo study of acoustic radiation force impulse imaging elastography for evaluation of rat liver with steatosis. <i>Ultrasonics</i> , 2017, 74, 161-166.	2.1	9
56	The influence of hepatic steatosis on the evaluation of fibrosis with non-alcoholic fatty liver disease by acoustic radiation force impulse. , 2017, 2017, 2988-2991.		6
57	Evaluation of the influence of severe steatosis on fibrosis measurement in a rat model with NAFLD by DMA and ARFI technology. , 2017, , .		0
58	Enhanced delivery of paclitaxel liposomes using focused ultrasound with microbubbles for treating nude mice bearing intracranial glioblastoma xenografts. <i>International Journal of Nanomedicine</i> , 2017, Volume 12, 5613-5629.	3.3	81
59	Ultrasonic Measurement of Dynamic Muscle Behavior for Poststroke Hemiparetic Gait. <i>BioMed Research International</i> , 2017, 2017, 1-8.	0.9	3
60	Using Coded Excitation to Detect Tissue Vibration in Ultrasonic Elastography. <i>Journal of Medical Imaging and Health Informatics</i> , 2017, 7, 217-223.	0.2	0
61	A comparison of multimodal biomarkers for chronic hepatitis B assessment using recursive feature elimination. , 2016, 2016, 2448-2451.		3
62	Delivery of Liposomes with Different Sizes to Mice Brain after Sonication by Focused Ultrasound in the Presence of Microbubbles. <i>Ultrasound in Medicine and Biology</i> , 2016, 42, 1499-1511.	0.7	46
63	Therapeutic effect of paclitaxel liposomes delivered by ultrasound with microbubbles on nude mice bearing intracranial glioblastoma xenografts monitored by bioluminescence imaging. , 2016, , .		0
64	A low-power and miniaturized electrocardiograph data collection system with smart textile electrodes for monitoring of cardiac function. <i>Australasian Physical and Engineering Sciences in Medicine</i> , 2016, 39, 1029-1040.	1.4	30
65	Monitoring tibialis anterior responses of post-stroke patients under electroacupuncture therapy with inertial sensors. , 2016, , .		0
66	Modeling the mechanical properties of liver fibrosis in rats. <i>Journal of Biomechanics</i> , 2016, 49, 1461-1467.	0.9	13
67	Identifying transient patterns of in vivo muscle behaviors during isometric contraction by local polynomial regression. <i>Biomedical Signal Processing and Control</i> , 2016, 24, 93-102.	3.5	3
68	Experimental Study On Digital Design Of Doppler Ultrasound With Coded Excitation. , 2016, , .		0
69	Broadband detection of dynamic acoustic emission process induced by 6 MV therapeutic X-ray beam from a clinical linear accelerator. , 2015, , .		1
70	Optimal linear combination of ARFI, transient elastography and APRI for the assessment of fibrosis in chronic hepatitis B. <i>Liver International</i> , 2015, 35, 816-825.	1.9	34
71	An automatic muscle fiber orientation tracking algorithm using Bayesian Kalman Filter for ultrasound images. , 2015, , .		6
72	Continuous fascicle orientation measurement of medial gastrocnemius muscle in ultrasonography using frequency domain Radon transform. <i>Biomedical Signal Processing and Control</i> , 2015, 20, 117-124.	3.5	8

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73	Evaluating hepatic fibrosis in rat liver by using ultrasound elastography: Comparison between model-dependent and model-independent approaches. , 2015, , .		0
74	The Role of Viscosity Estimation for Oil-in-gelatin Phantom in Shear Wave Based Ultrasound Elastography. Ultrasound in Medicine and Biology, 2015, 41, 601-609.	0.7	34
75	Measurement of Quantitative Viscoelasticity of Bovine Corneas Based on Lamb Wave Dispersion Properties. Ultrasound in Medicine and Biology, 2015, 41, 1461-1472.	0.7	12
76	Assessing tissue motions induced by orthogonal-frequency pulses and binary pulses using a laser vibrometer. , 2014, , .		0
77	A preliminary study of in vivo muscle behavior during walking among hemiplegia patients. , 2014, , .		0
78	Quantitative Shear Elasticity Assessment of Liver Fibrosis in Rat Model with Shear Wave Elastography Base on Acoustic Radiation Force. , 2014, , .		2
79	A novel outlier detection method for identifying torque-related transient patterns of in vivo muscle behavior. , 2014, 2014, 4216-9.		1
80	Characterization of individual muscle activities during isometric contraction using ultrasound imaging. , 2014, , .		2
81	Standard Plane Localization in Ultrasound by Radial Component Model and Selective Search. Ultrasound in Medicine and Biology, 2014, 40, 2728-2742.	0.7	60
82	A multimodal investigation of in vivo muscle behavior: System design and data analysis. , 2014, , .		4
83	Analyzing and modeling rheological behavior of liver fibrosis in rats using shear viscoelastic moduli. Journal of Zhejiang University: Science B, 2014, 15, 375-381.	1.3	12
84	Relationship of EMG/SMG features and muscle strength level: an exploratory study on tibialis anterior muscles during plantar-flexion among hemiplegia patients. BioMedical Engineering OnLine, 2014, 13, 5.	1.3	19
85	Quantitative analysis of liver fibrosis in rats with shearwave dispersion ultrasound vibrometry: Comparison with dynamic mechanical analysis. Medical Engineering and Physics, 2014, 36, 1401-1407.	0.8	17
86	A Study on the Nonlinearity Relationship between Quadriceps Thickness and Torque Output during Isometric Knee Extension. Lecture Notes in Computer Science, 2014, , 47-54.	1.0	0
87	Continuous Detection of Muscle Aspect Ratio Using Keypoint Tracking in Ultrasonography. IEEE Transactions on Biomedical Engineering, 2013, 60, 2361-2369.	2.5	2
88	Noninvasive assessment of liver viscoelasticity by acoustic radiation force with a rat model. , 2013, , .		0
89	Fabrication and performance of a 10 MHz annular array based on PMN-PT single crystal for medical imaging. , 2013, , .		0
90	Use of Optical Flow to Estimate Continuous Changes in Muscle Thickness from Ultrasound Image Sequences. Ultrasound in Medicine and Biology, 2013, 39, 2194-2201.	0.7	10

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91	Continuous thickness measurement of rectus femoris muscle in ultrasound image sequences: A completely automated approach. <i>Biomedical Signal Processing and Control</i> , 2013, 8, 792-798.	3.5	4
92	Quantification of Liver Viscoelasticity with Acoustic Radiation Force: A Study of Hepatic Fibrosis in a Rat Model. <i>Ultrasound in Medicine and Biology</i> , 2013, 39, 2091-2102.	0.7	60
93	Preliminary study on the effect of stiffness on lamb wave propagation in bovine corneas. , 2013, 2013, 1120-3.		0
94	Ultrasound vibrometry using orthogonal- frequency-based vibration pulses. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2013, 60, 2359-2370.	1.7	8
95	In-vitro quantification of rat liver viscoelasticity with shear wave dispersion ultrasound vibrometry. , 2013, 2013, 1915-8.		2
96	DEVELOPMENT OF A GENERIC ULTRASOUND VIBRO-ACOUSTIC IMAGING PLATFORM FOR TISSUE ELASTICITY AND VISCOSITY. <i>Journal of Innovative Optical Health Sciences</i> , 2012, 05, 1250002.	0.5	1
97	A verification and parametric analysis of an analytical model of a flexural vibration mode piezoelectric transformer. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2012, 59, 2731-2741.	1.7	2
98	Sonomyographic responses during voluntary isometric ramp contraction of the human rectus femoris muscle. <i>European Journal of Applied Physiology</i> , 2012, 112, 2603-2614.	1.2	54
99	A novel approach for detection of muscle boundary in ultrasound images. , 2011, , .		2
100	Continuous monitoring of electromyography (EMG), mechanomyography (MMG), sonomyography (SMG) and torque output during ramp and step isometric contractions. <i>Medical Engineering and Physics</i> , 2010, 32, 1032-1042.	0.8	76
101	Sonomyography (SMG) Control for Powered Prosthetic Hand: A Study with Normal Subjects. <i>Ultrasound in Medicine and Biology</i> , 2010, 36, 1076-1088.	0.7	54
102	Site Dependence of Thickness and Speed of Sound in Articular Cartilage of Bovine Patella. <i>Ultrasound in Medicine and Biology</i> , 2010, 36, 1345-1352.	0.7	12
103	Modeling the relationship between wrist angle and muscle thickness during wrist flexion&quot;extension based on the bone&quot;muscle lever system: A comparison study. <i>Medical Engineering and Physics</i> , 2009, 31, 1255-1260.	0.8	15
104	Performances of One-Dimensional Sonomyography and Surface Electromyography in Tracking Guided Patterns of Wrist Extension. <i>Ultrasound in Medicine and Biology</i> , 2009, 35, 894-902.	0.7	29
105	Estimation of wrist angle from sonomyography using support vector machine and artificial neural network models. <i>Medical Engineering and Physics</i> , 2009, 31, 384-391.	0.8	56
106	Use of muscle thickness change to control powered prosthesis: A pilot study. , 2009, 2009, 193-6.		2
107	Continuous Monitoring of Sonomyography, Electromyography and Torque Generated by Normal Upper Arm Muscles During Isometric Contraction: Sonomyography Assessment for Arm Muscles. <i>IEEE Transactions on Biomedical Engineering</i> , 2008, 55, 1191-1198.	2.5	107
108	Comparison of sonomyography and electromyography of forearm muscles in the guided wrist extension. , 2008, , .		5

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109	Dynamic monitoring of forearm muscles using one-dimensional sonomyography system. Journal of Rehabilitation Research and Development, 2008, 45, 187-196.	1.6	51