

Xin Chen

List of Publications by Year in descending order

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109
papers

1,530
citations

393982

19
h-index

377514

34
g-index

111
all docs

111
docs citations

111
times ranked

1727
citing authors

#	ARTICLE	IF	CITATIONS
1	Continuous Monitoring of Sonomyography, Electromyography and Torque Generated by Normal Upper Arm Muscles During Isometric Contraction: Sonomyography Assessment for Arm Muscles. IEEE Transactions on Biomedical Engineering, 2008, 55, 1191-1198.	2.5	107
2	Enhanced delivery of paclitaxel liposomes using focused ultrasound with microbubbles for treating nude mice bearing intracranial glioblastoma xenografts. International Journal of Nanomedicine, 2017, Volume 12, 5613-5629.	3.3	81
3	Continuous monitoring of electromyography (EMG), mechanomyography (MMG), sonomyography (SMG) and torque output during ramp and step isometric contractions. Medical Engineering and Physics, 2010, 32, 1032-1042.	0.8	76
4	Quantification of Liver Viscoelasticity with Acoustic Radiation Force: A Study of Hepatic Fibrosis in a Rat Model. Ultrasound in Medicine and Biology, 2013, 39, 2091-2102.	0.7	60
5	Standard Plane Localization in Ultrasound by Radial Component Model and Selective Search. Ultrasound in Medicine and Biology, 2014, 40, 2728-2742.	0.7	60
6	Estimation of wrist angle from sonomyography using support vector machine and artificial neural network models. Medical Engineering and Physics, 2009, 31, 384-391.	0.8	56
7	Ultrasound with microbubbles improves memory, ameliorates pathology and modulates hippocampal proteomic changes in a triple transgenic mouse model of Alzheimer's disease. Theranostics, 2020, 10, 11794-11819.	4.6	55
8	Sonomyography (SMG) Control for Powered Prosthetic Hand: A Study with Normal Subjects. Ultrasound in Medicine and Biology, 2010, 36, 1076-1088.	0.7	54
9	Sonomyographic responses during voluntary isometric ramp contraction of the human rectus femoris muscle. European Journal of Applied Physiology, 2012, 112, 2603-2614.	1.2	54
10	Dynamic monitoring of forearm muscles using one-dimensional sonomyography system. Journal of Rehabilitation Research and Development, 2008, 45, 187-196.	1.6	51
11	Delivery of Liposomes with Different Sizes to Mice Brain after Sonication by Focused Ultrasound in the Presence of Microbubbles. Ultrasound in Medicine and Biology, 2016, 42, 1499-1511.	0.7	46
12	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
13	Sonodynamic Therapy on Intracranial Glioblastoma Xenografts Using Sinoporphyrin Sodium Delivered by Ultrasound with Microbubbles. Annals of Biomedical Engineering, 2019, 47, 549-562.	1.3	39
14	Optimal linear combination of ARFI, transient elastography and APRI for the assessment of fibrosis in chronic hepatitis B. Liver International, 2015, 35, 816-825.	1.9	34
15	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
16	A low-power and miniaturized electrocardiograph data collection system with smart textile electrodes for monitoring of cardiac function. Australasian Physical and Engineering Sciences in Medicine, 2016, 39, 1029-1040.	1.4	30
17	Performances of One-Dimensional Sonomyography and Surface Electromyography in Tracking Guided Patterns of Wrist Extension. Ultrasound in Medicine and Biology, 2009, 35, 894-902.	0.7	29
18	Noninvasive assessment of age-related stiffness of crystalline lenses in a rabbit model using ultrasound elastography. BioMedical Engineering OnLine, 2018, 17, 75.	1.3	24

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19	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. <i>Quantitative Imaging in Medicine and Surgery</i> , 2021, 11, 1836-1853.	1.1	24
20	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
21	Relationship of EMG/SMG features and muscle strength level: an exploratory study on tibialis anterior muscles during plantar-flexion among hemiplegia patients. <i>BioMedical Engineering OnLine</i> , 2014, 13, 5.	1.3	19
22	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
23	Thyroid nodule recognition using a joint convolutional neural network with information fusion of ultrasound images and radiofrequency data. <i>European Radiology</i> , 2021, 31, 5001-5011.	2.3	18
24	Quantitative analysis of liver fibrosis in rats with shearwave dispersion ultrasound vibrometry: Comparison with dynamic mechanical analysis. <i>Medical Engineering and Physics</i> , 2014, 36, 1401-1407.	0.8	17
25	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
26	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
27	Accurate and Feasible Deep Learning Based Semi-Automatic Segmentation in CT for Radiomics Analysis in Pancreatic Neuroendocrine Neoplasms. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2021, 25, 3498-3506.	3.9	17
28	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
29	Modeling the relationship between wrist angle and muscle thickness during wrist flexion-extension based on the bone-muscle lever system: A comparison study. <i>Medical Engineering and Physics</i> , 2009, 31, 1255-1260.	0.8	15
30	A 2D Magneto-Acousto-Electrical Tomography Method to Detect Conductivity Variation Using Multifocus Image Method. <i>Sensors</i> , 2018, 18, 2373.	2.1	15
31	Rapid rotational magneto-acousto-electrical tomography with filtered back-projection algorithm based on plane waves. <i>Physics in Medicine and Biology</i> , 2021, 66, 095002.	1.6	15
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	Modeling the mechanical properties of liver fibrosis in rats. <i>Journal of Biomechanics</i> , 2016, 49, 1461-1467.	0.9	13
34	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
35	Analyzing and modeling rheological behavior of liver fibrosis in rats using shear viscoelastic moduli. <i>Journal of Zhejiang University: Science B</i> , 2014, 15, 375-381.	1.3	12
36	Measurement of Quantitative Viscoelasticity of Bovine Corneas Based on Lamb Wave Dispersion Properties. <i>Ultrasound in Medicine and Biology</i> , 2015, 41, 1461-1472.	0.7	12

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37	Controlled Ultrasound Erosion for Transdermal Delivery and Hepatitis B Immunization. <i>Ultrasound in Medicine and Biology</i> , 2019, 45, 1208-1220.	0.7	12
38	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
39	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
40	An in vitro study on the antitumor effect of sonodynamic therapy using sinoporphyrin sodium on human glioblastoma cells. <i>Ultrasonics</i> , 2021, 110, 106272.	2.1	11
41	Use of Optical Flow to Estimate Continuous Changes in Muscle Thickness from Ultrasound Image Sequences. <i>Ultrasound in Medicine and Biology</i> , 2013, 39, 2194-2201.	0.7	10
42	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
43	Multi-scale information with attention integration for classification of liver fibrosis in B-mode US image. <i>Computer Methods and Programs in Biomedicine</i> , 2022, 215, 106598.	2.6	10
44	A Dual-Modal Imaging Method Combining Ultrasound and Electromagnetism for Simultaneous Measurement of Tissue Elasticity and Electrical Conductivity. <i>IEEE Transactions on Biomedical Engineering</i> , 2022, 69, 2499-2511.	2.5	10
45	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
46	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
47	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
48	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
49	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
50	Assessment of liver fibrosis in chronic hepatitis B via multimodal data. <i>Neurocomputing</i> , 2017, 253, 169-176.	3.5	8
51	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
52	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
53	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
54	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

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55	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
56	3D Lightweight Network for Simultaneous Registration and Segmentation of Organs-at-Risk in CT Images of Head and Neck Cancer. <i>IEEE Transactions on Medical Imaging</i> , 2022, 41, 951-964.	5.4	7
57	Image quality improvement of magneto-acousto-electrical tomography with Barker coded excitation. <i>Biomedical Signal Processing and Control</i> , 2022, 77, 103823.	3.5	7
58	An automatic muscle fiber orientation tracking algorithm using Bayesian Kalman Filter for ultrasound images. , 2015, , .		6
59	Liver tissue metabolic profiling and pathways of non-alcoholic steatohepatitis in rats. <i>Hepatology Research</i> , 2017, 47, 1484-1493.	1.8	6
60	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
61	Multiparametric Quantitative US Examination of Liver Fibrosis: A Feature-Engineering and Machine-Learning Based Analysis. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2022, 26, 715-726.	3.9	6
62	Diagnosis of significant liver fibrosis in patients with chronic hepatitis B using a deep learning-based data integration network. <i>Hepatology International</i> , 2022, 16, 526-536.	1.9	6
63	Comparison of sonomyography and electromyography of forearm muscles in the guided wrist extension. , 2008, , .		5
64	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. <i>IEEE Access</i> , 2021, 9, 89300-89310.	2.6	5
65	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
66	A multimodal investigation of in vivo muscle behavior: System design and data analysis. , 2014, , .		4
67	Viscoelastic properties of normal rat liver measured by ultrasound elastography: Comparison with oscillatory rheometry. <i>Biorheology</i> , 2017, 53, 193-207.	1.2	4
68	Improved shear wave motion detection using coded excitation for transient elastography. <i>Scientific Reports</i> , 2017, 7, 44483.	1.6	4
69	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
70	A comparison of multimodal biomarkers for chronic hepatitis B assessment using recursive feature elimination. , 2016, 2016, 2448-2451.		3
71	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
72	Ultrasonic Measurement of Dynamic Muscle Behavior for Poststroke Hemiparetic Gait. <i>BioMed Research International</i> , 2017, 2017, 1-8.	0.9	3

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73	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
74	Acupoint-brain (acubrain) mapping: Common and distinct cortical language regions activated by focused ultrasound stimulation on two language-relevant acupoints. <i>Brain and Language</i> , 2021, 215, 104920.	0.8	3
75	Viscoelasticity measured by shear wave elastography in a rat model of nonalcoholic fatty liver disease: comparison with dynamic mechanical analysis. <i>BioMedical Engineering OnLine</i> , 2021, 20, 45.	1.3	3
76	Corneal Lamb wave imaging for quantitative assessment of collagen cross-linking treatment based on comb-push ultrasound shear elastography. <i>Ultrasonics</i> , 2021, 116, 106478.	2.1	3
77	Programmable and monitorable intradermal vaccine delivery using ultrasound perforation array. <i>International Journal of Pharmaceutics</i> , 2022, 617, 121595.	2.6	3
78	Use of muscle thickness change to control powered prosthesis: A pilot study. , 2009, 2009, 193-6.		2
79	A novel approach for detection of muscle boundary in ultrasound images. , 2011, , .		2
80	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
81	Continuous Detection of Muscle Aspect Ratio Using Keypoint Tracking in Ultrasonography. <i>IEEE Transactions on Biomedical Engineering</i> , 2013, 60, 2361-2369.	2.5	2
82	In-vitro quantification of rat liver viscoelasticity with shear wave dispersion ultrasound vibrometry. , 2013, 2013, 1915-8.		2
83	Quantitative Shear Elasticity Assessment of Liver Fibrosis in Rat Model with Shear Wave Elastography Base on Acoustic Radiation Force. , 2014, , .		2
84	Characterization of individual muscle activities during isometric contraction using ultrasound imaging. , 2014, , .		2
85	An ultrasound transient elastography system with coded excitation. <i>BioMedical Engineering OnLine</i> , 2017, 16, 87.	1.3	2
86	Sonomagnetic Stimulation of Live Cells: Electrophysiologic, Biochemical and Behavioral Responses. <i>Ultrasound in Medicine and Biology</i> , 2019, 45, 2970-2983.	0.7	2
87	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
88	Observation of the Blood-Brain Barrier Opening by Ultrasound with Microbubbles on Mice Using Intravital Imaging with Two-photon Microscopy. , 2021, , .		2
89	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
90	A novel outlier detection method for identifying torque-related transient patterns of in vivo muscle behavior. , 2014, 2014, 4216-9.		1

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91	Broadband detection of dynamic acoustic emission process induced by 6 MV therapeutic X-ray beam from a clinical linear accelerator. , 2015, , .		1
92	Temperature dependent of viscoelasticity measurement on fat emulsion phantom using acoustic radiation force elasticity imaging method. Technology and Health Care, 2018, 26, 449-458.	0.5	1
93	Orientation-independent Feature Matching (OIFM) for Multimodal Retinal Image Registration. Biomedical Signal Processing and Control, 2020, 60, 101957.	3.5	1
94	Noninvasive assessment of liver viscoelasticity by acoustic radiation force with a rat model. , 2013, , .		0
95	Fabrication and performance of a 10 MHz annular array based on PMN-PT single crystal for medical imaging. , 2013, , .		0
96	Preliminary study on the effect of stiffness on lamb wave propagation in bovine corneas. , 2013, 2013, 1120-3.		0
97	Assessing tissue motions induced by orthogonal-frequency pulses and binary pulses using a laser vibrometer. , 2014, , .		0
98	A preliminary study of in vivo muscle behavior during walking among hemiplegia patients. , 2014, , .		0
99	Evaluating hepatic fibrosis in rat liver by using ultrasound elastography: Comparison between model-dependent and model-independent approaches. , 2015, , .		0
100	Therapeutic effect of paclitaxel liposomes delivered by ultrasound with microbubbles on nude mice bearing intracranial glioblastoma xenografts monitored by bioluminescence imaging. , 2016, , .		0
101	Monitoring tibialis anterior responses of post-stroke patients under electroacupuncture therapy with inertial sensors. , 2016, , .		0
102	In-vivo assessing the age-related stiffness of crystalline lens in rabbits by acoustic radiation force based ultrasound elastography. , 2017, , .		0
103	Evaluation of the influence of severe steatosis on fibrosis measurement in a rat model with NAFLD by DMA and ARFI technology. , 2017, , .		0
104	Study on the Antitumor Effect of Sonodynamic Therapy on Nude Mice Bearing Intracranial Glioblastoma Xenografts. , 2018, , .		0
105	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
106	Experimental Study On Digital Design Of Doppler Ultrasound With Coded Excitation. , 2016, , .		0
107	Using Coded Excitation to Detect Tissue Vibration in Ultrasonic Elastography. Journal of Medical Imaging and Health Informatics, 2017, 7, 217-223.	0.2	0
108	Application of Information Technology in Medical Ultrasound Engineering. , 2020, , 351-366.		0

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109	In Vivo Monitoring of Corneal Viscoelasticity in Rabbits with Collagen Cross-linking Treatment using Ultrasound Elastography. , 2020, , .		0