Po-Hsiang Tsui

List of Publications by Year
in descending order

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135 papers	2,806 citations	196777 29 h-index	263392 45 g-index
136 all docs	136 docs citations	136 times ranked	1928 citing authors

#	Article	IF	Citations
1	In vitro effects of ultrasound with different energies on the conduction properties of neural tissue. Ultrasonics, 2005, 43, 560-565.	2.1	169
2	Imaging Local Scatterer Concentrations by the Nakagami Statistical Model. Ultrasound in Medicine and Biology, 2007, 33, 608-619.	0.7	150
3	Ultrasonic Nakagami Imaging: A Strategy to Visualize the Scatterer Properties of Benign and Malignant Breast Tumors. Ultrasound in Medicine and Biology, 2010, 36, 209-217.	0.7	68
4	The effect of transducer characteristics on the estimation of Nakagami paramater as a function of scatterer concentration. Ultrasound in Medicine and Biology, 2004, 30, 1345-1353.	0.7	67
5	Classification of Benign and Malignant Breast Tumors by 2-D Analysis Based on Contour Description and Scatterer Characterization. IEEE Transactions on Medical Imaging, 2010, 29, 513-522.	5.4	66
6	Using ultrasound Nakagami imaging to assess liver fibrosis in rats. Ultrasonics, 2012, 52, 215-222.	2.1	65
7	Classification of breast masses by ultrasonic Nakagami imaging: a feasibility study. Physics in Medicine and Biology, 2008, 53, 6027-6044.	1.6	64
8	Classification of scattering media within benign and malignant breast tumors based on ultrasound textureâ€featureâ€based and Nakagamiâ€parameter images. Medical Physics, 2011, 38, 2198-2207.	1.6	64
9	Feasibility study of using high-frequency ultrasonic Nakagami imaging for characterizing the cataract lensin vitro. Physics in Medicine and Biology, 2007, 52, 6413-6425.	1.6	63
10	Fetal Ultrasound Image Segmentation for Automatic Head Circumference Biometry Using Deeply Supervised Attention-Gated V-Net. Journal of Digital Imaging, 2021, 34, 134-148.	1.6	55
11	Monitoring Radiofrequency Ablation Using Real-Time Ultrasound Nakagami Imaging Combined with Frequency and Temporal Compounding Techniques. PLoS ONE, 2015, 10, e0118030.	1.1	52
12	Small-window parametric imaging based on information entropy for ultrasound tissue characterization. Scientific Reports, 2017, 7, 41004.	1.6	51
13	Hepatic Steatosis Assessment with Ultrasound Small-Window Entropy Imaging. Ultrasound in Medicine and Biology, 2018, 44, 1327-1340.	0.7	50
14	Real-Time Electrical Impedimetric Monitoring of Blood Coagulation Process under Temperature and Hematocrit Variations Conducted in a Microfluidic Chip. PLoS ONE, 2013, 8, e76243.	1.1	47
15	Semi-automatic Breast Ultrasound Image Segmentation Based on Mean Shift and Graph Cuts. Ultrasonic Imaging, 2014, 36, 256-276.	1.4	46
16	Detection of blood coagulation and clot formation using quantitative ultrasonic parameters. Ultrasound in Medicine and Biology, 2005, 31, 1567-1573.	0.7	44
17	Investigating cerebral oedema using poroelasticity. Medical Engineering and Physics, 2016, 38, 48-57.	0.8	43
18	Ultrasound temperature estimation based on probability variation of backscatter data. Medical Physics, 2012, 39, 2369-2385.	1.6	42

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19	Window-modulated compounding Nakagami imaging for ultrasound tissue characterization. Ultrasonics, 2014, 54, 1448-1459.	2.1	42
20	Acoustic structure quantification by using ultrasound Nakagami imaging for assessing liver fibrosis. Scientific Reports, 2016, 6, 33075.	1.6	41
21	Effects of fatty infiltration in human livers on the backscattered statistics of ultrasound imaging. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2015, 229, 419-428.	1.0	38
22	Effects of Estimators on Ultrasound Nakagami Imaging in Visualizing the Change in the Backscattered Statistics from a Rayleigh Distribution to a Pre-Rayleigh Distribution. Ultrasound in Medicine and Biology, 2015, 41, 2240-2251.	0.7	38
23	Monitoring radiofrequency ablation with ultrasound Nakagami imaging. Medical Physics, 2013, 40, 072901.	1.6	36
24	Ultrasound Detection of Scatterer Concentration by Weighted Entropy. Entropy, 2015, 17, 6598-6616.	1.1	34
25	A Review of Ultrasound Tissue Characterization with Mean Scatterer Spacing. Ultrasonic Imaging, 2017, 39, 263-282.	1.4	34
26	Effects of Fatty Infiltration of the Liver on the Shannon Entropy of Ultrasound Backscattered Signals. Entropy, 2016, 18, 341.	1.1	32
27	Characterization of lamina propria and vocal muscle in human vocal fold tissue by ultrasound Nakagami imaging. Medical Physics, 2011, 38, 2019-2026.	1.6	31
28	Relationship between Ultrasound Backscattered Statistics and the Concentration of Fatty Droplets in Livers: An Animal Study. PLoS ONE, 2013, 8, e63543.	1.1	31
29	A review of ultrasound detection methods for breast microcalcification. Mathematical Biosciences and Engineering, 2019, 16, 1761-1785.	1.0	31
30	Effect of ultrasound frequency on the Nakagami statistics of human liver tissues. PLoS ONE, 2017, 12, e0181789.	1.1	30
31	Performance Evaluation of Ultrasonic Nakagami Image in Tissue Characterization. Ultrasonic Imaging, 2008, 30, 78-94.	1.4	29
32	Use of Nakagami Statistics and Empirical Mode Decomposition for Ultrasound Tissue Characterization by a Nonfocused Transducer. Ultrasound in Medicine and Biology, 2009, 35, 2055-2068.	0.7	29
33	Measurements of attenuation coefficient for evaluating the hardness of a cataract lens by a high-frequency ultrasonic needle transducer. Physics in Medicine and Biology, 2009, 54, 5981-5994.	1.6	29
34	Ultrasound imaging of the larynx and vocal folds. Current Opinion in Otolaryngology and Head and Neck Surgery, 2012, 20, 437-442.	0.8	29
35	Evaluation of muscular changes by ultrasound Nakagami imaging in Duchenne muscular dystrophy. Scientific Reports, 2017, 7, 4429.	1.6	29
36	A survey of ultrasound elastography approaches to percutaneous ablation monitoring. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2014, 228, 1069-1082.	1.0	27

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37	Using ultrasound CBE imaging without echo shift compensation for temperature estimation. Ultrasonics, 2012, 52, 925-935.	2.1	25
38	Strainâ€compounding technique with ultrasound Nakagami imaging for distinguishing between benign and malignant breast tumors. Medical Physics, 2012, 39, 2325-2333.	1.6	25
39	Hepatic steatosis assessment using ultrasound homodyned-K parametric imaging: the effects of estimators. Quantitative Imaging in Medicine and Surgery, 2019, 9, 1932-1947.	1.1	24
40	Microvascular Flow Estimation by Microbubble-Assisted Nakagami Imaging. Ultrasound in Medicine and Biology, 2009, 35, 653-671.	0.7	23
41	Three-dimensional ultrasonic Nakagami imaging for tissue characterization. Physics in Medicine and Biology, 2010, 55, 5849-5866.	1.6	23
42	Ultrasound window-modulated compounding Nakagami imaging: Resolution improvement and computational acceleration for liver characterization. Ultrasonics, 2016, 70, 18-28.	2.1	23
43	Ultrasound Entropy Imaging of Nonalcoholic Fatty Liver Disease: Association with Metabolic Syndrome. Entropy, 2018, 20, 893.	1.1	23
44	Value of homodyned K distribution in ultrasound parametric imaging of hepatic steatosis: An animal study. Ultrasonics, 2020, 101, 106001.	2.1	23
45	Classification of Benign and Malignant Breast Tumors in Ultrasound Images with Posterior Acoustic Shadowing Using Half-Contour Features. Journal of Medical and Biological Engineering, 2015, 35, 178-187.	1.0	22
46	In VitroStudy on Assessment of Blood Coagulation and Clot Formation Using Doppler Ultrasound. Japanese Journal of Applied Physics, 2005, 44, 8727-8732.	0.8	21
47	A Computer-Aided Diagnosis Scheme For Detection Of Fatty Liver In Vivo Based On Ultrasound Kurtosis Imaging. Journal of Medical Systems, 2016, 40, 33.	2.2	21
48	Hepatic Steatosis Assessment Using Quantitative Ultrasound Parametric Imaging Based on Backscatter Envelope Statistics. Applied Sciences (Switzerland), 2019, 9, 661.	1.3	21
49	Early Detection of Liver Fibrosis in Rats Using 3-D Ultrasound Nakagami Imaging: A Feasibility Evaluation. Ultrasound in Medicine and Biology, 2014, 40, 2272-2284.	0.7	20
50	An Improved Fuzzy Connectedness Method for Automatic Three-Dimensional Liver Vessel Segmentation in CT Images. Journal of Healthcare Engineering, 2018, 2018, 1-18.	1.1	20
51	Parameter estimation of the homodyned K distribution based on an artificial neural network for ultrasound tissue characterization. Ultrasonics, 2021, 111, 106308.	2.1	20
52	An adaptive threshold filter for ultrasound signal rejection. Ultrasonics, 2009, 49, 413-418.	2.1	19
53	Monitoring Microwave Ablation Using Ultrasound Echo Decorrelation Imaging: An ex vivo Study. Sensors, 2019, 19, 977.	2.1	19
54	Microvascular Flow Estimation by Contrast-Assisted Ultrasound B-Scan and Statistical Parametric Images. IEEE Transactions on Information Technology in Biomedicine, 2009, 13, 360-369.	3.6	18

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55	Detecting changes in ultrasound backscattered statistics by using Nakagami parameters: Comparisons of moment-based and maximum likelihood estimators. Ultrasonics, 2017, 77, 133-143.	2.1	18
56	Ultrasound imaging in nonalcoholic liver disease: current applications and future developments. Quantitative Imaging in Medicine and Surgery, 2019, 9, 546-551.	1.1	18
57	Clinical Value of Information Entropy Compared with Deep Learning for Ultrasound Grading of Hepatic Steatosis. Entropy, 2020, 22, 1006.	1.1	18
58	Entropic Imaging of Cataract Lens: An In Vitro Study. PLoS ONE, 2014, 9, e96195.	1.1	18
59	Cataract measurement by estimating the ultrasonic statistical parameter using an ultrasound needle transducer: anin vitrostudy. Physiological Measurement, 2011, 32, 513-522.	1.2	17
60	Artifact Reduction of Ultrasound Nakagami Imaging by Combining Multifocus Image Reconstruction and the Noise-Assisted Correlation Algorithm. Ultrasonic Imaging, 2015, 37, 53-69.	1.4	17
61	Considerations of Ultrasound Scanning Approaches in Non-alcoholic Fatty Liver Disease Assessment through Acoustic Structure Quantification. Ultrasound in Medicine and Biology, 2019, 45, 1955-1969.	0.7	17
62	Classification of Benign and Malignant Breast Tumors Using H-Scan Ultrasound Imaging. Diagnostics, 2019, 9, 182.	1.3	16
63	Changes in Backscattered Ultrasonic Envelope Statistics as a Function of Thrombus Age: An inÂVitro Study. Ultrasound in Medicine and Biology, 2015, 41, 498-508.	0.7	15
64	Application of Ultrasound Nakagami Imaging for the Diagnosis of Fatty Liver. Journal of Medical Ultrasound, 2016, 24, 47-49.	0.2	15
65	Adaptive ultrasound temperature imaging for monitoring radiofrequency ablation. PLoS ONE, 2017, 12, e0182457.	1.1	15
66	Ultrasound parametric imaging of hepatic steatosis using the homodyned-K distribution: An animal study. Ultrasonics, 2018, 87, 91-102.	2.1	15
67	Ultrasound Assessment of Hepatic Steatosis by Using the Double Nakagami Distribution: A Feasibility Study. Diagnostics, 2020, 10, 557.	1.3	15
68	Ultrasound single-phase CBE imaging for monitoring radiofrequency ablation. International Journal of Hyperthermia, 2018, 35, 548-558.	1.1	14
69	Ultrasound Backscatter Envelope Statistics Parametric Imaging for Liver Fibrosis Characterization: A Review. Ultrasonic Imaging, 2020, 42, 92-109.	1.4	14
70	Ultrasound Detection of Liver Fibrosis in Individuals with Hepatic Steatosis Using the Homodyned K Distribution. Ultrasound in Medicine and Biology, 2021, 47, 84-94.	0.7	14
71	Minimum Requirement of Artificial Noise Level for Using Noise-Assisted Correlation Algorithm to Suppress Artifacts in Ultrasonic Nakagami Images. Ultrasonic Imaging, 2012, 34, 110-124.	1.4	13
72	An Approach for the Visualization of Temperature Distribution in Tissues According to Changes in Ultrasonic Backscattered Energy. Computational and Mathematical Methods in Medicine, 2013, 2013, 1-10.	0.7	13

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73	Instantaneous frequency as a new approach for evaluating the clinical severity of Duchenne muscular dystrophy through ultrasound imaging. Ultrasonics, 2019, 94, 235-241.	2.1	13
74	Evaluation of thrombolysis by using ultrasonic imaging: an in vitro study. Scientific Reports, 2015, 5, 11669.	1.6	12
75	Feasibility Exploration of Blood Flow Estimation by Contrast-Assisted Nakagami Imaging. Ultrasonic Imaging, 2008, 30, 133-150.	1.4	11
76	NOISE-MODULATED EMPIRICAL MODE DECOMPOSITION. Advances in Adaptive Data Analysis, 2010, 02, 25-37.	0.6	11
77	Noise-Assisted Correlation Algorithm for Suppressing Noise-Induced Artifacts in Ultrasonic Nakagami Images. IEEE Transactions on Information Technology in Biomedicine, 2012, 16, 314-322.	3.6	11
78	Three-dimensional Visualization of Ultrasound Backscatter Statistics by Window-modulated Compounding Nakagami Imaging. Ultrasonic Imaging, 2018, 40, 171-189.	1.4	11
79	Performance Evaluations on Using Entropy of Ultrasound Log-Compressed Envelope Images for Hepatic Steatosis Assessment: An In Vivo Animal Study. Entropy, 2018, 20, 120.	1.1	11
80	Effect of Adaptive Threshold Filtering on Ultrasonic Nakagami Parameter to Detect Variation in Scatterer Concentration. Ultrasonic Imaging, 2010, 32, 229-242.	1.4	10
81	Monitoring Radiofrequency Ablation Using Ultrasound Envelope Statistics and Shear Wave Elastography in the Periablation Period: An In Vitro Feasibility Study. PLoS ONE, 2016, 11, e0162488.	1.1	10
82	Clinical Evaluation of Duchenne Muscular Dystrophy Severity Using Ultrasound Small-Window Entropy Imaging. Entropy, 2020, 22, 715.	1.1	10
83	Evaluation of zebrafish brain development using optical coherence tomography. Journal of Biophotonics, 2013, 6, 668-678.	1.1	9
84	Comparison of ultrasound temperature imaging with infrared thermometry during radio frequency ablation. Japanese Journal of Applied Physics, 2014, 53, 047001.	0.8	9
85	Empirical Mode Decomposition of Ultrasound Imagingfor Gain-Independent Measurement on Tissue Echogenicity: A Feasibility Study. Applied Sciences (Switzerland), 2017, 7, 324.	1.3	9
86	Arterial pulse waveform analysis by the probability distribution of amplitude. Physiological Measurement, 2007, 28, 803-812.	1.2	8
87	Ultrasound thermal mapping based on a hybrid method combining cross-correlation and zero-crossing tracking. Journal of the Acoustical Society of America, 2013, 134, 1530-1540.	0.5	8
88	Ultrasound characterization of the mastoid for detecting middle ear effusion: A preliminary clinical validation. Scientific Reports, 2016, 6, 27777.	1.6	8
89	Low-Pressure Burst-Mode Focused Ultrasound Wave Reconstruction and Mapping for Blood-Brain Barrier Opening: A Preclinical Examination. Scientific Reports, 2016, 6, 27939.	1.6	8
90	Characterization of limb lymphedema using the statistical analysis of ultrasound backscattering. Quantitative Imaging in Medicine and Surgery, 2020, 10, 48-56.	1.1	8

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91	Detection of pediatric hepatic steatosis through ultrasound backscattering analysis. European Radiology, 2021, 31, 3216-3225.	2.3	8
92	Monitoring microwave ablation using ultrasound homodyned K imaging based on the noise-assisted correlation algorithm: An ex vivo study. Ultrasonics, 2021, 110, 106287.	2.1	8
93	Utility of quantitative ultrasound in community screening for hepatic steatosis. Ultrasonics, 2021, 111, 106329.	2.1	8
94	Fatty liver evaluation with double-Nakagami model under low-resolution conditions. Japanese Journal of Applied Physics, 2021, 60, SDDE06.	0.8	8
95	Quantifying Lower Limb Muscle Stiffness as Ambulation Function Declines in Duchenne Muscular Dystrophy with Acoustic Radiation Force Impulse Shear Wave Elastography. Ultrasound in Medicine and Biology, 2021, 47, 2880-2889.	0.7	8
96	A unified approach to combine temperature estimation and elastography for thermal lesion determination in focused ultrasound thermal therapy. Physics in Medicine and Biology, 2011, 56, 169-186.	1.6	7
97	Title is missing!. Journal of Medical and Biological Engineering, 2013, 33, 95.	1.0	7
98	Discrimination of breast microcalcifications using a strain-compounding technique with ultrasound speckle factor imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2014, 61, 955-965.	1.7	6
99	Optical coherence tomography: A new strategy to image planarian regeneration. Scientific Reports, 2014, 4, 6316.	1.6	6
100	Interpretation US Elastography in Chronic Hepatitis B with or without Anti-HBV Therapy. Applied Sciences (Switzerland), 2017, 7, 1164.	1.3	6
101	Combination of Window-Modulated Ultrasound Nakagami Imaging and Gaussian Approximation for Radiofrequency Ablation Monitoring: An In Vitro Study. Journal of Medical and Biological Engineering, 2018, 38, 173-185.	1.0	6
102	Effects of Hepatic Steatosis on Non-Invasive Liver Fibrosis Measurements Between Hepatitis B and Other Etiologies. Applied Sciences (Switzerland), 2019, 9, 1961.	1.3	6
103	Metabolic Characteristics of a Novel Ultrasound Quantitative Diagnostic Index for Nonalcoholic Fatty Liver Disease. Scientific Reports, 2019, 9, 7922.	1.6	6
104	Frequency-domain CBE imaging for ultrasound localization of the HIFU focal spot: a feasibility study. Scientific Reports, 2020, 10, 5468.	1.6	6
105	Deep Learning of Ultrasound Imaging for Evaluating Ambulatory Function of Individuals with Duchenne Muscular Dystrophy. Diagnostics, 2021, 11, 963.	1.3	6
106	Discrimination between Newly Formed and Aged Thrombi Using Empirical Mode Decomposition of Ultrasound B-Scan Image. BioMed Research International, 2015, 2015, 1-9.	0.9	5
107	Ultrasound Sample Entropy Imaging: A New Approach for Evaluating Hepatic Steatosis and Fibrosis. IEEE Journal of Translational Engineering in Health and Medicine, 2021, 9, 1-12.	2.2	5
108	Quantitative imaging of ultrasound backscattered signals with information entropy for bone microstructure characterization. Scientific Reports, 2022, 12, 414.	1.6	5

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109	Detection of microwave ablation coagulation areas using ultrasound Nakagami imaging based on Gaussian pyramid decomposition: A feasibility study. Ultrasonics, 2022, 124, 106758.	2.1	5
110	Cutoff values of acoustic radiation force impulse two-location measurements in different etiologies of liver fibrosis. Journal of Medical Ultrasound, 2019, 27, 130.	0.2	4
111	MAEF-Net: Multi-Attention Efficient Feature Fusion Network for Deep Learning Segmentation. , 2021, , .		4
112	Hepatic Steatosis Assessment as a New Strategy for the Metabolic and Nutritional Management of Duchenne Muscular Dystrophy. Nutrients, 2022, 14, 727.	1.7	4
113	Using 1 MHz pulse-echo ultrasound externally applied to detect mastoid effusion: Cadaver experiments. Ultrasonics, 2012, 52, 663-667.	2.1	3
114	Ultrasonic Evaluation of Liver Fibrosis Using the Homodyned K Distribution with an Artificial Neural Network Estimator. , 2021, , .		3
115	A feasibility study on the determination of blood hematocrit with nakagami parameter calculated from backscattered signals. , 0, , .		2
116	Classification of benign and malignant breast tumors by the contour analysis and scatterers characterization. , 2009, , .		2
117	Stress Decay, Imaging Plane, and Gas Bubble Need to be Considered When Using Ultrasound Strain Elastography to Monitor Hepatic Ablations. Academic Radiology, 2015, 22, 265.	1.3	2
118	Current status and future prospects of scattering statistics in ultrasound imaging. Journal of Medical Ultrasound, 2016, 24, 83-85.	0.2	2
119	Clinical validation of ultrasound backscatter statistics for the assessment of liver fibrosis. Ultrasound in Medicine and Biology, 2019, 45, S94.	0.7	2
120	Postmastoidectomy Effusion Measurement Using a Delay-Line Ultrasound Transducer. Ultrasonic Imaging, 2013, 35, 45-56.	1.4	1
121	Considering Angle Selection When Using Ultrasound Electrode Displacement Elastography to Evaluate Radiofrequency Ablation of Tissues. BioMed Research International, 2014, 2014, 1-11.	0.9	1
122	Contour extraction for breast tumor in ultrasound image. , 2014, , .		1
123	Effect of Frequency on the Change in Backscattered Ultrasound Energy as a Function of Temperature. Japanese Journal of Applied Physics, 2012, 51, 057001.	0.8	1
124	Using Short-Time Fourier Transform to Ultrasound Signals for Fatty Liver Detection. International Journal of Signal Processing Systems, 2016, , 300-303.	0.5	1
125	Ultrasonic Evaluation of Liver Fibrosis Coexisting with Hepatic Steatosis Using the Homodyned K Distribution Combined with Noise-modulated Empirical Mode Decomposition. , 2021, , .		1
126	Imaging the Effects of Whole-Body Vibration on the Progression of Hepatic Steatosis by Quantitative Ultrasound Based on Backscatter Envelope Statistics. Pharmaceutics, 2022, 14, 741.	2.0	1

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127	Transmastoid Ultrasound Detection of Middle Ear Effusion and Its Association with Clinical Audiometric Tests. Life, 2022, 12, 599.	1.1	1
128	A feasibility study on the development of ultrasonic parametric imaging based on nakagami statistical model. , 0, , .		0
129	Effects of low intensity ultrasound on the conduction property of neural tissues. , 0, , .		0
130	0650: Classification of Benign and Malignant Breast Tumors by Ultrasonic Nakagami Imaging. Ultrasound in Medicine and Biology, 2009, 35, S89.	0.7	0
131	In situ measurements of attenuation coefficient for evaluating the hardness of cataract lens by a high frequency ultrasonic needle transducer. , 2009, , .		0
132	The Cutoff Values of ARFI Two-Location Measurement in Different Metavir Fibrosis Scores and Etiologies. Ultrasound in Medicine and Biology, 2017, 43, S102.	0.7	0
133	Ultrasound Statistical Parametric Imaging in the Assessment of Fatty Liver. Ultrasound in Medicine and Biology, 2017, 43, S149.	0.7	0
134	Interpretation Us Elastography in Chronic Hepatitis B with or without Anti-HBV Therapy. Ultrasound in Medicine and Biology, 2017, 43, S167.	0.7	0
135	Stretch-Induced Healing of Injured Muscles Is Associated With Myogenesis and Decreased Fibrosis. American Journal of Sports Medicine, 2022, , 036354652210839.	1.9	0