Matthew W Urban

List of Publications by Citations

194 papers	3,492 citations	32 h-index	53 g-index
255 ext. papers	4,381 ext. citations	3.7 avg, IF	5.61 L-index

#	Paper	IF	Citations
194	Shearwave dispersion ultrasound vibrometry (SDUV) for measuring tissue elasticity and viscosity. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2009**, 56, 55-62	3.2	330
193	AN OVERVIEW OF ELASTOGRAPHY - AN EMERGING BRANCH OF MEDICAL IMAGING. *Current Medical Imaging*, **2011**, 7, 255-282	1.2	269
192	Material property estimation for tubes and arteries using ultrasound radiation force and analysis of propagating modes. *Journal of the Acoustical Society of America*, **2011**, 129, 1344-54	2.2	127
191	Comb-push ultrasound shear elastography (CUSE): a novel method for two-dimensional shear elasticity imaging of soft tissues. *IEEE Transactions on Medical Imaging*, **2012**, 31, 1821-32	11.7	123
190	Acoustic waves in medical imaging and diagnostics. *Ultrasound in Medicine and Biology*, **2013**, 39, 1133-46	3.5	114
189	Lamb wave dispersion ultrasound vibrometry (LDUV) method for quantifying mechanical properties of viscoelastic solids. *Physics in Medicine and Biology*, **2011**, 56, 2245-64	3.8	109
188	Fast shear compounding using robust 2-D shear wave speed calculation and multi-directional filtering. *Ultrasound in Medicine and Biology*, **2014**, 40, 1343-55	3.5	71
187	Bias observed in time-of-flight shear wave speed measurements using radiation force of a focused ultrasound beam. *Ultrasound in Medicine and Biology*, **2011**, 37, 1884-92	3.5	66
186	Improved Shear Wave Motion Detection Using Pulse-Inversion Harmonic Imaging With a Phased Array Transducer. *IEEE Transactions on Medical Imaging*, **2013**, 32, 2299-310	11.7	65
185	Phase velocities and attenuations of shear, Lamb, and Rayleigh waves in plate-like tissues submerged in a fluid (L). *Journal of the Acoustical Society of America*, **2011**, 130, 3549-52	2.2	62
184	A Review of Shearwave Dispersion Ultrasound Vibrometry (SDUV) and its Applications. *Current Medical Imaging*, **2012**, 8, 27-36	1.2	62
183	Two-dimensional shear-wave elastography on conventional ultrasound scanners with time-aligned sequential tracking (TAST) and comb-push ultrasound shear elastography (CUSE). *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2015**, 62, 290-302	3.2	61
182	Comb-push ultrasound shear elastography (CUSE) with various ultrasound push beams. *IEEE Transactions on Medical Imaging*, **2013**, 32, 1435-47	11.7	55
181	Error in estimates of tissue material properties from shear wave dispersion ultrasound vibrometry. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2009**, 56, 748-58	3.2	55
180	Arterial Stiffness Estimation by Shear Wave Elastography: Validation in Phantoms with Mechanical Testing. *Ultrasound in Medicine and Biology*, **2016**, 42, 308-21	3.5	53
179	Viscoelastic properties of normal and infarcted myocardium measured by a multifrequency shear wave method: comparison with pressure-segment length method. *Ultrasound in Medicine and Biology*, **2014**, 40, 1785-95	3.5	52
178	Superficial ultrasound shear wave speed measurements in soft and hard elasticity phantoms: repeatability and reproducibility using two ultrasound systems. *Pediatric Radiology*, **2015**, 45, 376-85	2.8	51

177	On Lamb and Rayleigh wave convergence in viscoelastic tissues. *Physics in Medicine and Biology*, **2011**, 56, 6723-38	3.8	49
176	Shearwave dispersion ultrasound vibrometry (SDUV) on swine kidney. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2011**, 58, 2608-19	3.2	49
175	Shear elastic modulus estimation from indentation and SDUV on gelatin phantoms. *IEEE Transactions on Biomedical Engineering*, **2011**, 58, 1706-14	5	49
174	Attenuation measuring ultrasound shearwave elastography and in vivo application in post-transplant liver patients. *Physics in Medicine and Biology*, **2017**, 62, 484-500	3.8	47
173	Ultrasound bladder vibrometry method for measuring viscoelasticity of the bladder wall. *Physics in Medicine and Biology*, **2013**, 58, 2675-95	3.8	46
172	A Review of Vibro-acoustography and its Applications in Medicine. *Current Medical Imaging*, **2011**, 7, 350-359	[illegible]	42
171	Shear wave dispersion ultrasonic vibrometry for measuring prostate shear stiffness and viscosity: an in vitro pilot study. *IEEE Transactions on Biomedical Engineering*, **2011**, 58, 235-42	5	42
170	Measurement of viscoelastic properties of in vivo swine myocardium using lamb wave dispersion ultrasound vibrometry (LDUV). *IEEE Transactions on Medical Imaging*, **2013**, 32, 247-61	11.7	39
169	Noninvasive ultrasound image guided surface wave method for measuring the wave speed and estimating the elasticity of lungs: A feasibility study. *Ultrasonics*, **2011**, 51, 289-95	3.5	39
168	Loss tangent and complex modulus estimated by acoustic radiation force creep and shear wave dispersion. *Physics in Medicine and Biology*, **2012**, 57, 1263-82	3.8	36
167	Guidelines for Finite-Element Modeling of Acoustic Radiation Force-Induced Shear Wave Propagation in Tissue-Mimicking Media. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2017**, 64, 78-92	3.2	35
166	Implementation of vibro-acoustography on a clinical ultrasound system. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2011**, 58, 1169-81	3.2	35
165	In vivo vibroacoustography of large peripheral arteries. *Investigative Radiology*, **2008**, 43, 243-52	10.1	35
164	Multifrequency vibro-acoustography. *IEEE Transactions on Medical Imaging*, **2006**, 25, 1284-95	11.7	35
163	Shear Wave Elastography Quantifies Stiffness in Ex□Vivo Porcine Artery with Stiffened Arterial Region. *Ultrasound in Medicine and Biology*, **2016**, 42, 2423-35	3.5	33
162	External vibration multi-directional ultrasound shearwave elastography (EVMUSE): application in liver fibrosis staging. *IEEE Transactions on Medical Imaging*, **2014**, 33, 2140-8	11.7	32
161	Quantitative Assessment of Left Ventricular Diastolic Stiffness Using Cardiac Shear Wave Elastography: A Pilot Study. *Journal of Ultrasound in Medicine*, **2016**, 35, 1419-27	2.9	31
160	Modulation of ultrasound to produce multifrequency radiation force. *Journal of the Acoustical Society of America*, **2010**, 127, 1228-38	2.2	30

159	Coded excitation plane wave imaging for shear wave motion detection. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2015**, 62, 1356-72	3.2	29
158	Shear wave vibrometry evaluation in transverse isotropic tissue mimicking phantoms and skeletal muscle. *Physics in Medicine and Biology*, **2014**, 59, 7735-52	3.8	29
157	RSNA QIBA ultrasound shear wave speed Phase II phantom study in viscoelastic media **2015**,		28
156	Performance of 2-Dimensional Ultrasound Shear Wave Elastography in Liver Fibrosis Detection Using Magnetic Resonance Elastography as the Reference Standard: A Pilot Study. *Journal of Ultrasound in Medicine*, **2016**, 35, 401-12	2.9	27
155	Noninvasive Evaluation of Bladder Wall Mechanical Properties as a Function of Filling Volume: Potential Application in Bladder Compliance Assessment. *PLoS ONE*, **2016**, 11, e0157818	3.7	27
154	Noninvasive assessment of liver fibrosis using ultrasound-based shear wave measurement and comparison to magnetic resonance elastography. *Journal of Ultrasound in Medicine*, **2014**, 33, 1597-604	2.9	22
153	Shear wave speed measurement using an unfocused ultrasound beam. *Ultrasound in Medicine and Biology*, **2012**, 38, 1646-55	3.5	22
152	Shearwave dispersion ultrasound vibrometry applied to in vivo myocardium. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2009**, 2009, 2891-4	0.9	22
151	Harmonic pulsed excitation and motion detection of a vibrating reflective target. *Journal of the Acoustical Society of America*, **2008**, 123, 519-33	2.2	22
150	Probe Oscillation Shear Elastography (PROSE): A High Frame-Rate Method for Two-Dimensional Ultrasound Shear Wave Elastography. *IEEE Transactions on Medical Imaging*, **2016**, 35, 2098-106	11.7	22
149	Local Phase Velocity Based Imaging: A New Technique Used for Ultrasound Shear Wave Elastography. *IEEE Transactions on Medical Imaging*, **2019**, 38, 894-908	11.7	22
148	Generalized response of a sphere embedded in a viscoelastic medium excited by an ultrasonic radiation force. *Journal of the Acoustical Society of America*, **2011**, 130, 1133-41	2.2	21
147	Harmonic motion detection in a vibrating scattering medium. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2008**, 55, 1956-74	3.2	21
146	Breast vibro-acoustography: initial results show promise. *Breast Cancer Research*, **2012**, 14, R128	8.3	20
145	Influence of wall thickness and diameter on arterial shear wave elastography: a phantom and finite element study. *Physics in Medicine and Biology*, **2017**, 62, 2694-2718	3.8	18
144	Robust Phase Velocity Dispersion Estimation of Viscoelastic Materials Used for Medical Applications Based on the Multiple Signal Classification Method. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2018**, 65, 423-439	3.2	18
143	Application of Acoustoelasticity to Evaluate Nonlinear Modulus in Ex Vivo Kidneys. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2018**, 65, 188-200	3.2	18
142	In vivo swine kidney viscoelasticity during acute gradual decrease in renal blood flow: pilot study **2013**, 7, 68-78		17

141	Improved Shear Wave Group Velocity Estimation Method Based on Spatiotemporal Peak and Thresholding Motion Search. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2017**, 64, 660-668	3.2	16
140	Two Point Method For Robust Shear Wave Phase Velocity Dispersion Estimation of Viscoelastic Materials. *Ultrasound in Medicine and Biology*, **2019**, 45, 2540-2553	3.5	16
139	Production of acoustic radiation force using ultrasound: methods and applications. *Expert Review of Medical Devices*, **2018**, 15, 819-834	3.5	15
138	Modeling transversely isotropic, viscoelastic, incompressible tissue-like materials with application in ultrasound shear wave elastography. *Physics in Medicine and Biology*, **2015**, 60, 1289-306	3.8	14
137	Application of Attenuation Measuring Ultrasound Shearwave Elastography in 8 post-transplant liver patients **2014**,		14
136	Vibro-acoustography beam formation with reconfigurable arrays. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2012**, 59, 1421-31	3.2	14
135	Multi-source and multi-directional shear wave generation with intersecting steered ultrasound push beams. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2015**, 62, 647-62	3.2	13
134	Improvement of Shear Wave Motion Detection Using Harmonic Imaging in Healthy Human Liver. *Ultrasound in Medicine and Biology*, **2016**, 42, 1031-41	3.5	13
133	Phase aberration correction using ultrasound radiation force and vibrometry optimization. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2007**, 54, 1142-53	3.2	12
132	Investigation of the effects of myocardial anisotropy for shear wave elastography using impulsive force and harmonic vibration. *Physics in Medicine and Biology*, **2016**, 61, 365-82	3.8	12
131	Pediatric Cardiac Shear Wave Elastography for Quantitative Assessment of Myocardial Stiffness: A Pilot Study in Healthy Controls. *Ultrasound in Medicine and Biology*, **2016**, 42, 1719-29	3.5	12
130	Acoustic Radiation Force-Induced Creep-Recovery (ARFICR): A Noninvasive Method to Characterize Tissue Viscoelasticity. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2018**, 65, 3-13	3.2	11
129	Automated Compression Device for Viscoelasticity Imaging. *IEEE Transactions on Biomedical Engineering*, **2017**, 64, 1535-1546	5	11
128	A beamforming study for implementation of vibro-acoustography with a 1.75-D array transducer. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2013**, 60, 535-51	3.2	11
127	Thermal safety of vibro-acoustography using a confocal transducer. *Ultrasound in Medicine and Biology*, **2010**, 36, 343-9	3.5	11
126	Multifrequency radiation force of acoustic waves in fluids. *Physica D: Nonlinear Phenomena*, **2007**, 232, 48-53	3.3	11
125	Measurement of biaxial mechanical properties of soft tubes and arteries using piezoelectric elements and sonometry. *Physics in Medicine and Biology*, **2011**, 56, 3371-86	3.8	10
124	Quantification of liver stiffness and viscosity with SDUV: In vivo animal study **2008**,		10

123	Measuring the phase of vibration of spheres in a viscoelastic medium as an image contrast modality. *Journal of the Acoustical Society of America*, **2005**, 118, 3465-72	2.2	10
122	Y-box binding protein-1 is crucial in acquired drug resistance development in metastatic clear-cell renal cell carcinoma. *Journal of Experimental and Clinical Cancer Research*, **2020**, 39, 33	12.8	10
121	Two-Point Frequency Shift Method for Shear Wave Attenuation Measurement. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2020**, 67, 483-496	3.2	10
120	Arterial waveguide model for shear wave elastography: implementation and in vitro validation. *Physics in Medicine and Biology*, **2017**, 62, 5473-5494	3.8	9
119	Simultaneous identification of elastic properties, thickness, and diameter of arteries excited with ultrasound radiation force. *Physics in Medicine and Biology*, **2015**, 60, 5279-96	3.8	9
118	Optimized shear wave generation using hybrid beamforming methods. *Ultrasound in Medicine and Biology*, **2014**, 40, 188-99	3.5	9
117	Characterization of material properties of soft solid thin layers with acoustic radiation force and wave propagation. *Journal of the Acoustical Society of America*, **2015**, 138, 2499-507	2.2	9
116	Optical coherence tomography for evaluating capillary waves in blood and plasma. *Biomedical Optics Express*, **2020**, 11, 1092-1106	3.5	9
115	Discrepancies in reporting tissue material properties. *Journal of Ultrasound in Medicine*, **2013**, 32, 886-8	2.9	9
114	Characterizing blood clots using acoustic radiation force optical coherence elastography and ultrasound shear wave elastography. *Physics in Medicine and Biology*, **2021**, 66, 035013	3.8	9
113	Characterization of transverse isotropy in compressed tissue-mimicking phantoms. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2015**, 62, 1036-1046	3.2	8
112	Phase Aberration and Attenuation Effects on Acoustic Radiation Force-Based Shear Wave Generation. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2016**, 63, 222-32	3.2	8
111	Ex Vivo measurements of myocardial viscoelasticity using Shearwave Dispersion Ultrasound Vibrometry (SDUV). *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2009**, 2009, 2895-8	0.9	8
110	Local Phase Velocity Based Imaging of Viscoelastic Phantoms and Tissues. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2021**, 68, 389-405	3.2	8
109	Radiological Society of North America/Quantitative Imaging Biomarker Alliance Shear Wave Speed Bias Quantification in Elastic and Viscoelastic Phantoms. *Journal of Ultrasound in Medicine*, **2021**, 40, 569-581	2.9	8
108	Probe Oscillation Shear Wave Elastography: Initial In Vivo Results in Liver. *IEEE Transactions on Medical Imaging*, **2018**, 37, 1214-1223	11.7	7
107	In vitro renal cortex elasticity and viscosity measurements with Shearwave Dispersion Ultrasound Vibrometry (SDUV) on swine kidney. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2009**, 2009, 4428-31	0.9	7
106	Discrepancies in Reporting Tissue Material Properties. *Journal of Ultrasound in Medicine*, **2013**, 32, 886-888	2.9	6

105	In vivo transthoracic measurement of end-diastolic left ventricular stiffness with ultrasound shear wave elastography: A pilot study **2014**,		6
104	**2010**,		6
103	Measurements of swine renal cortex shear elasticity and viscosity with Shearwave Dispersion Ultrasound Vibrometry (SDUV) **2009**,		6
102	Four-dimensional (4D) phase velocity optical coherence elastography in heterogeneous materials and biological tissue. *Biomedical Optics Express*, **2020**, 11, 3795-3817	3.5	6
101	Acoustic radiation force optical coherence elastography for evaluating mechanical properties of soft condensed matters and its biological applications. *Journal of Biophotonics*, **2020**, 13, e201960134	3.1	6
100	Detecting Kidney Stones Using Twinkling Artifacts: Survey of Kidney Stones with Varying Composition and Size. *Ultrasound in Medicine and Biology*, **2020**, 46, 156-166	3.5	6
99	Combined spatiotemporal and frequency-dependent shear wave elastography enables detection of vulnerable carotid plaques as validated by MRI. *Scientific Reports*, **2020**, 10, 403	4.9	5
98	Open- and Closed-chest Measurements of Left-Ventricular Myocardial Viscoelasticity using Lamb wave Dispersion Ultrasound Vibrometry (LDUV): A Feasibility Study. *Biomedical Physics and Engineering Express*, **2018**, 4,	1.5	5
97	Velocity measurement by vibro-acoustic Doppler. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2012**, 59, 752-65	3.2	5
96	In vivo thyroid vibro-acoustography: a pilot study. *BMC Medical Imaging*, **2013**, 13, 12	2.9	5
95	Composed vibration pulses for ultrasound vibrometry **2010**,		5
94	Vibro-acoustography and multifrequency image compounding. *Ultrasonics*, **2011**, 51, 689-96	3.5	5
93	In vivo open and closed chest measurements of myocardial viscoelasticity through a heart cycle using Lamb wave Dispersion Ultrasound Vibrometry (LDUV) **2011**,		5
92	Fast Local Phase Velocity-Based Imaging: Shear Wave Particle Velocity and Displacement Motion Study. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2020**, 67, 526-537	3.2	5
91	Downstream vascular changes after flow-diverting device deployment in a rabbit model. *Journal of NeuroInterventional Surgery*, **2019**, 11, 523-527	7.8	5
90	Evaluation of Reconstruction Parameters for 2-D Comb-Push Ultrasound Shear Wave Elastography. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2019**, 66, 254-263	3.2	5
89	Dispersion curve calculation in viscoelastic tissue-mimicking materials using non-parametric, parametric, and high-resolution methods. *Ultrasonics*, **2021**, 109, 106257	3.5	5
88	1,25-Dihydroxyvitamin D Encapsulated in Nanoparticles Prevents Venous Neointimal Hyperplasia and Stenosis in Porcine Arteriovenous Fistulas. *Journal of the American Society of Nephrology: JASN*, **2021**,	12.7	5

87	Plaque characterization using shear wave elastography-evaluation of differentiability and accuracy using a combined ex vivo and in vitro setup. *Physics in Medicine and Biology*, **2018**, 63, 235008	3.8	5
86	The ‘sixth sense’ of ultrasound: probing nonlinear elasticity with acoustic radiation force. *Physics in Medicine and Biology*, **2015**, 60, 3775-94	3.8	4
85	Ultrasound Shear Wave Elastography as a Measure of Porcine Hepatic Disease in Right Heart Dysfunction: A Pilot Study. *Ultrasound in Medicine and Biology*, **2018**, 44, 2393-2399	3.5	4
84	Characterization of transverse isotropy in compressed tissue-mimicking phantoms. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2015**, 62, 1036-46	3.2	4
83	Shear wave elastography on the GE LOGIQ E9 with Comb-push Ultrasound Shear Elastography (CUSE) and time aligned sequential tracking (TAST) **2014**,		4
82	Deconvolution of vibroacoustic images using a simulation model based on a three dimensional point spread function. *Ultrasonics*, **2013**, 53, 36-44	3.5	4
81	Viscoelastic tissue mimicking phantom validation study with shear wave elasticity imaging and viscoelastic spectroscopy **2015**,		4
80	Ultrasound vibrometry using orthogonal- frequency-based vibration pulses. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2013**, 60, 2359-70	3.2	4
79	Measurement of longitudinal and circumferential waves in tubes and artery excited with ultrasound radiation force **2013**,		4
78	Modal analysis of ultrasound radiation force generated shear waves on arteries. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 2585-8	0.9	4
77	Lamb wave Shearwave dispersion ultrasound Vibrometry (SDUV) validation study. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2010**, 2010, 45-8	0.9	4
76	Ex vivo measurements of mechanical properties of myocardium using Lamb and Rayleigh wave dispersion velocities **2009**,		4
75	Comb-push Ultrasound Shear Elastography (CUSE): A novel and fast technique for shear elasticity imaging **2012**,		4
74	Phase Velocity Estimation With Expanded Bandwidth in Viscoelastic Phantoms and Tissues. *IEEE Transactions on Medical Imaging*, **2021**, 40, 1352-1362	11.7	4
73	Ultrasonic method to characterize shear wave propagation in micellar fluids. *Journal of the Acoustical Society of America*, **2016**, 140, 1719	2.2	4
72	Characterizing thrombus with multiple red blood cell compositions by optical coherence tomography attenuation coefficient. *Journal of Biophotonics*, **2021**, 14, e202000364	3.1	4
71	In vivo measurement of renal transplant viscoelasticity **2013**,		3
70	In vivo patient measurements of bladder elasticity using Ultrasound Bladder Vibrometry (UBV). *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2013**, 2013, 113-6	0.9	3

69	Elasticity and viscosity estimation from shear wave velocity and attenuation: A simulation study **2010**,		3
68	Estimation of mechanical properties of arteries and soft tubes using shear wave speeds **2009**,		3
67	In vivo assessment of renal tissue viscoelasticity during acute and gradual renal ischemia **2011**,		3
66	Complex shear modulus quantification from acoustic radiation force creep-recovery and shear wave propagation **2012**,		3
65	Multimodal guided wave inversion for arterial stiffness: methodology and validation in phantoms. *Physics in Medicine and Biology*, **2021**, 66,	3.8	3
64	Viscoelastic Creep Imaging **2018**, 171-188		3
63	Fluid surface tension evaluation using capillary wave measurement with optical coherence tomography. *AIP Advances*, **2020**, 10, 055121	1.5	2
62	Comparison of shear velocity dispersion in viscoelastic phantoms measured by ultrasound-based shear wave elastography and magnetic resonance elastography **2017**,		2
61	Application of acoustoelasticity to evaluate non-linear modulus in ex vivo kidneys **2016**,		2
60	Simultaneous estimation of shear elastic modulus and backscatter coefficient: Phantom and in human liver in vivo study **2016**,		2
59	Recent developments in spectral-based ultrasonic tissue characterization **2018**,		2
58	Comparison of shear velocity dispersion in viscoelastic phantoms measured by ultrasound-based shear wave elastography and magnetic resonance elastography **2017**,		2
57	Implementation of shear wave elastography on pediatric cardiac transducers with pulse-inversion harmonic imaging and time-aligned sequential tracking **2015**,		2
56	Investigation of the effects of myocardial anisotropy for shear wave elastography using acoustic radiation force and harmonic vibration **2015**,		2
55	Shear waves generated with magnetomotive force on an embedded sphere **2014**,		2
54	Viscoelastic measurements on perfused and non-perfused swine renal cortex in vivo **2010**,		2
53	Inversion of Lamb waves in Shearwave Dispersion Ultrasound Vibrometry (SDUV) **2010**,		2
52	In vivo measurements of viscoelasticity of the swine heart using Shearwave Dispersionc Ultrasound Vibrometry (SDUV) **2010**,		2

51	Viscoelastic parameter estimation using simulated shear wave motion and convolutional neural networks. *Computers in Biology and Medicine*, **2021**, 133, 104382	7	2
50	Evaluation of materials used for vascular anastomoses using shear wave elastography. *Physics in Medicine and Biology*, **2019**, 64, 075001	3.8	2
49	Mapped Chebyshev pseudo-spectral method for simulating the shear wave propagation in the plane of symmetry of a transversely isotropic viscoelastic medium. *Medical and Biological Engineering and Computing*, **2017**, 55, 389-401	3.1	1
48	Complex background suppression for vibro-acoustography images. *Ultrasonics*, **2015**, 56, 456-72	3.5	1
47	C-Elastography: In Vitro Feasibility Phantom Study. *Ultrasound in Medicine and Biology*, **2020**, 46, 1738-1754	3.5	1
46	Viscoelastic characterization of transverse isotropic tissue mimicking phantoms and muscle **2014**,		1
45	Recovering shear wave velocity in boundary sensitive media with two-dimensional motion tracking **2014**,		1
44	Two-dimensional shear elasticity imaging using external mechanical vibration **2013**,		1
43	A high frame-rate and low-cost Elastography system by generating shear waves through continuous vibration of the ultrasound transducer **2015**,		1
42	In vivo liver shear wave motion detection and shear wave speed comparison between fundamental and harmonic imaging **2015**,		1
41	In-plane anisotropy method for the characterization of the elastic properties of anisotropic materials **2015**,		1
40	Liver elasticity imaging using external Vibration Multi-directional Ultrasound Shearwave Elastography (EVMUSE) **2014**,		1
39	Feasibility of shear wave elastography for plaque characterization **2014**,		1
38	Measure elasticity and viscosity using the out-of-plane shear wave **2012**,		1
37	Acoustic radiation force creep-recovery: Theory and finite element modeling **2013**,		1
36	Implementation of vibro-acoustography on a clinical ultrasound system **2010**,		1
35	Robust shear wave speed measurement using comb-push Ultrasound Radiation Force **2011**,		1
34	Measuring bladder viscoelasticity using ultrasound **2012**,		1

33	Orthogonal Frequency Ultrasound Vibrometry **2010**,		1
32	Abstract TP44: Evaluating Mechanical Properties of Human Blood Clot Analogues Using Ultrasound-mediated Optical Coherence Elastography. *Stroke*, **2020**, 51,	6.7	1
31	Three-dimensional shear wave elastography on conventional ultrasound scanners with external vibration. *Physics in Medicine and Biology*, **2020**, 65, 215009	3.8	1
30	Plane wave elastography: a frequency-domain ultrasound shear wave elastography approach. *Physics in Medicine and Biology*, **2021**, 66,	3.8	1
29	Novel Uses of Ultrasound to Assess Kidney Mechanical Properties.. *Kidney360*, **2021**, 2, 1531-1539	1.8	1
28	Tissue characterization using simultaneous estimation of backscatter coefficient and elastic shear modulus. *Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference*, **2016**, 2016, 2881-2884	0.9	1
27	Nondestructive measurement of esophageal biaxial mechanical properties utilizing sonometry. *Physics in Medicine and Biology*, **2016**, 61, 4781-95	3.8	1
26	Two-dimensional (2D) dynamic vibration optical coherence elastography (DV-OCE) for evaluating mechanical properties: a potential application in tissue engineering. *Biomedical Optics Express*, **2021** , 12, 1217-1235	3.5	1
25	Vibro-acoustography and its Medical Applications **2018**, 250-263		1
24	Wave Propagation in Viscoelastic Materials **2018**, 118-127		1
23	GPU-based Green's function simulations of shear waves generated by an applied acoustic radiation force in elastic and viscoelastic models. *Physics in Medicine and Biology*, **2018**, 63, 10NT01	3.8	1
22	Optical coherence viscometry. *Applied Physics Letters*, **2021**, 118, 164102	3.4	0
21	Time-Aligned Plane Wave Compounding Methods for High-Frame-Rate Shear Wave Elastography: Experimental Validation and Performance Assessment on Tissue Phantoms. *Ultrasound in Medicine and Biology*, **2021**, 47, 1931-1948	3.5	0
20	Evaluation of Robustness of Local Phase Velocity Imaging in Homogenous Tissue-Mimicking Phantoms. *Ultrasound in Medicine and Biology*, **2021**, 47, 3514-3528	3.5	0
19	Using Ultrasound Color Doppler Twinkling to Identify Biopsy Markers in the Breast and Axilla. *Ultrasound in Medicine and Biology*, **2021**, 47, 3122-3134	3.5	0
18	Introduction to the Special Issue on Quantitative Ultrasound-Based Tissue Characterization. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2016**, 63, 1231-1233	3.2	
17	Special issue on Quantitative Ultrasound-Based Tissue Characterization - Call for Papers. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2015**, 62, c5-c5	3.2	
16	Multifrequency ultrasound radiation force excitation and motion detection of harmonically vibrating scatterers. *Journal of the Acoustical Society of America*, **2008**, 123, 581-581	2.2	

15	A parametric evaluation of shear wave speeds estimated with time-of-flight calculations in viscoelastic media. *Journal of the Acoustical Society of America*, **2020**, 148, 1349	2.2
14	Harmonic Shear Wave Elastography **2018**, 238-249	
13	Theory of Ultrasound Physics and Imaging **2018**, 7-28	
12	Transient Elastography: From Research to Noninvasive Assessment of Liver Fibrosis Using Fibroscan **2018**, 295-317	
11	Transverse Wave Propagation in Bounded Media **2018**, 90-104	
10	Current and Future Clinical Applications of Elasticity Imaging Techniques **2018**, 471-491	
9	Shear Wave Dispersion Ultrasound Vibrometry **2018**, 284-294	
8	Single Tracking Location Shear Wave Elastography **2018**, 368-387	
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