Kevin J Parker

List of Publications by Year
in descending order

133 papers	4,929 citations	94433 37 h-index	98798 67 g-index
141 all docs	141 docs citations	141 times ranked	2632 citing authors

#	Article	IF	Citations
1	Breast Ultrasound Volume Sweep Imaging: A New Horizon in Expanding Imaging Access for Breast Cancer Detection. Journal of Ultrasound in Medicine, 2023, 42, 817-832.	1.7	8
2	Diagnostic Performance of an Artificial Intelligence System in Breast Ultrasound. Journal of Ultrasound in Medicine, 2022, 41, 97-105.	1.7	23
3	Disease-Specific Imaging Utilizing Support Vector Machine Classification of H-Scan Parameters: Assessment of Steatosis in a Rat Model. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2022, 69, 720-731.	3.0	14
4	A Preliminary Study of Liver Fat Quantification Using Reported Ultrasound Speed of Sound and Attenuation Parameters. Ultrasound in Medicine and Biology, 2022, 48, 675-684.	1.5	10
5	Assessing corneal cross-linking with reverberant 3D optical coherence elastography. Journal of Biomedical Optics, 2022, 27, .	2.6	5
6	Speckle statistics of cortical brain tissue in optical coherence tomography. , 2022, , .		0
7	Local Burr distribution estimator for speckle statistics. Biomedical Optics Express, 2022, 13, 2334.	2.9	1
8	Power laws prevail in medical ultrasound. Physics in Medicine and Biology, 2022, 67, 09TR02.	3.0	4
9	Characterization of viscoelastic media using reverberant shear wave autocorrelation estimator. , 2022, , .		0
10	Generalized formulations producing a Burr distribution of speckle statistics. Journal of Medical Imaging, 2022, 9, 023501.	1.5	1
11	Comprehensive experimental assessments of rheological modelsâ€™ performance in elastography of soft tissues. Acta Biomaterialia, 2022, 146, 259-273.	8.3	13
12	Multiparametric ultrasound imaging for the assessment of normal versus steatotic livers. Scientific Reports, 2021, 11, 2655.	3.3	32
13	Fat and fibrosis as confounding cofactors in viscoelastic measurements of the liver. Physics in Medicine and Biology, 2021, 66, 045024.	3.0	13
14	Speckle statistics of biological tissues in optical coherence tomography. Biomedical Optics Express, 2021, 12, 4179.	2.9	14
15	The quantification of liver fat from wave speed and attenuation. Physics in Medicine and Biology, 2021, 66, 145011.	3.0	1
16	Reverberant Elastography for the Elastic Characterization of Anisotropic Tissues. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-12.	2.9	6
17	Reverberant shear wave phase gradients for elastography. Physics in Medicine and Biology, 2021, 66, 175001.	3.0	7
18	Hâ€scan trajectories indicate the progression of specific diseases. Medical Physics, 2021, 48, 5047-5058.	3.0	12

#	Article	IF	Citations
19	Clusters of Ultrasound Scattering Parameters for the Classification of Steatotic and Normal Livers. Ultrasound in Medicine and Biology, 2021, 47, 3014-3027.	1.5	25
20	Design and Analysis Methods for Trials with AI-Based Diagnostic Devices for Breast Cancer. Journal of Personalized Medicine, 2021, 11, 1150.	2.5	0
21	Disease-specific imaging with H-scan trajectories and support vector machine to visualize the progression of liver diseases. , 2021, , .		4
22	Early Detection of Liver Steatosis using Multiparametric Ultrasound Imaging. , 2021, , .		3
23	H-scan imaging and quantitative measurement to distinguish melanoma metastasis. , 2021, , .		3
24	Vibration sonoelastography. , 2020, , 45-59.		1
25	Comprehensive Viscoelastic Characterization of Tissues and the Inter-relationship of Shear Wave (Group and Phase) Velocity, Attenuation and Dispersion. Ultrasound in Medicine and Biology, 2020, 46, 3448-3459.	1.5	19
26	H-scan, Shear Wave and Bioluminescent Assessment of the Progression of Pancreatic Cancer Metastases in the Liver. Ultrasound in Medicine and Biology, 2020, 46, 3369-3378.	1.5	17
27	Scattering Signatures of Normal versus Abnormal Livers with Support Vector Machine Classification. Ultrasound in Medicine and Biology, 2020, 46, 3379-3392.	1.5	22
28	1009: Elasticity imaging of placental tissue demonstrates potential for disease state discrimination. American Journal of Obstetrics and Gynecology, 2020, 222, S628.	1.3	1
29	Validations of the Microchannel Flow Model for Characterizing Vascularized Tissues. Fluids, 2020, 5, 228.	1.7	5
30	Support vector machine (SVM) based liver classification: fibrosis, steatosis, and inflammation. , 2020, , .		8
31	Fine-tuning the H-scan for discriminating changes in tissue scatterers. Biomedical Physics and Engineering Express, 2020, 6, 045012.	1.2	20
32	Burr, Lomax, Pareto, and Logistic Distributions from Ultrasound Speckle. Ultrasonic Imaging, 2020, 42, 203-212.	2.6	15
33	Liver Backscatter and the Hepatic Vasculatureâ€™s Autocorrelation Function. Acoustics, 2020, 2, 3-12.	1.4	7
34	Elastography imaging: the 30 year perspective. Physics in Medicine and Biology, 2020, , .	3.0	33
35	Speckle from branching vasculature: dependence on number density. Journal of Medical Imaging, 2020, 7, 1.	1.5	7
36	Experimental study to evaluate the generation of reverberant shear wave fields (R-SWF) in homogenous media. , 2020, , .		6

#	Article	IF	Citations
37	Early assessment of nonalcoholic fatty liver disease using multiparametric ultrasound imaging. , 2020, , .		2
38	Reverberant 3D optical coherence elastography maps the elasticity of individual corneal layers. Nature Communications, 2019, 10, 4895.	12.8	77
39	Attenuation of Shear Waves in Normal and Steatotic Livers. Ultrasound in Medicine and Biology, 2019, 45, 895-901.	1.5	22
40	The 3D Spatial Autocorrelation of the Branching Fractal Vasculature. Acoustics, 2019, 1, 369-381.	1.4	13
41	An initial study of complete 2D shear wave dispersion images using a reverberant shear wave field. Physics in Medicine and Biology, 2019, 64, 145009.	3.0	33
42	The first order statistics of backscatter from the fractal branching vasculature. Journal of the Acoustical Society of America, 2019, 146, 3318-3326.	1.1	16
43	2-D Shear wave dispersion images using the reverberant shear wave field approach: application in tissues exhibiting power law response. , 2019, , .		6
44	Real-time H-scan ultrasound imaging using a Verasonics research scanner. Ultrasonics, 2019, 94, 28-36.	3.9	41
45	Shear wave propagation in viscoelastic media: validation of an approximate forward model. Physics in Medicine and Biology, 2019, 64, 025008.	3.0	12
46	Monitoring Early Breast Cancer Response to Neoadjuvant Therapy Using Hâ€Scan Ultrasound Imaging: Preliminary Preclinical Results. Journal of Ultrasound in Medicine, 2019, 38, 1259-1268.	1.7	44
47	Longitudinal shear waves for elastic characterization of tissues in optical coherence elastography. Biomedical Optics Express, 2019, 10, 3699.	2.9	28
48	Perspectives and advances in optical elastography. , 2019, , .		4
49	Shear Wave Speed Estimation Using Reverberant Shear Wave Fields: Implementation and Feasibility Studies. Ultrasound in Medicine and Biology, 2018, 44, 963-977.	1.5	38
50	A complex elastographic hyperbolic solver (CEHS) to recover frequency dependent complex shear moduli in viscoelastic models utilizing one or more displacement data-sets. Inverse Problems in Science and Engineering, 2018, 26, 1155-1177.	1.2	0
51	Analysis of Transient Shear Wave in Lossy Media. Ultrasound in Medicine and Biology, 2018, 44, 1504-1515.	1.5	16
52	Concentric layered Hermite scatterers. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 1379-1382.	2.1	1
53	Spatial Angular Compounding Technique for H-Scan Ultrasound Imaging. Ultrasound in Medicine and Biology, 2018, 44, 267-277.	1.5	47
54	Group versus Phase Velocity of Shear Waves in Soft Tissues. Ultrasonic Imaging, 2018, 40, 343-356.	2.6	21

#	Article	IF	Citations
55	The nonlinear ultrasound needle pulse. Journal of the Acoustical Society of America, 2018, 144, 861-871.	1.1	1
56	H-scan analysis of thyroid lesions. Journal of Medical Imaging, 2018, 5, 1.	1.5	13
57	Viscoelastic characterization of dispersive media by inversion of a general wave propagation model in optical coherence elastography. , 2018, , .		1
58	Reverberant shear wave fields and estimation of tissue properties. Physics in Medicine and Biology, 2017, 62, 1046-1061.	3.0	60
59	The Ultrasound Needle Pulse. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2017, 64, 1045-1049.	3.0	4
60	Enhanced axial and lateral resolution using stabilized pulses. Journal of Medical Imaging, 2017, 4, 027001.	1.5	7
61	Comparative study of shear wave-based elastography techniques in optical coherence tomography. Journal of Biomedical Optics, 2017, 22, 035010.	2.6	39
62	Hermite scatterers in an ultraviolet sky. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 3845-3848.	2.1	5
63	Detection of early tumor response to abraxane using H-scan imaging: Preliminary results in a small animal model of breast cancer. , 2017, , .		4
64	An approach to viscoelastic characterization of dispersive media by inversion of a general wave propagation model. Journal of Innovative Optical Health Sciences, 2017, 10, 1742008.	1.0	21
65	Notice of Removal: Enhanced axial and lateral resolution using stabilized pulses. , 2017, , .		0
66	Notice of Removal: The H-scan format for classification of ultrasound scattering. , 2017, , .		0
67	Notice of Removal: The ultrasound needle pulse. , 2017, , .		0
68	H-scan sensitivity to scattering size. Journal of Medical Imaging, 2017, 4, 1.	1.5	26
69	Longitudinal iso-phase condition and needle pulses. Optics Express, 2016, 24, 28669.	3.4	86
70	Shear Wave Elastography in the Living, Perfused, Post-Delivery Placenta. Ultrasound in Medicine and Biology, 2016, 42, 1282-1288.	1.5	23
71	Wavelength average velocity estimator for ultrasound elastography. , 2016, , .		0
72	Enhanced resolution pulse-echo imaging with stabilized pulses. Journal of Medical Imaging, 2016, 3, 027003.	1.5	7

#	Article	IF	Citations
73	Temporal artifact minimization in sonoelastography through optimal selection of imaging parameters. Journal of the Acoustical Society of America, 2016, 140, 714-717.	1.1	3
74	Shear Wave Speed Measurements Using Crawling Wave Sonoelastography and Single Tracking Location Shear Wave Elasticity Imaging for Tissue Characterization. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 1351-1360.	3.0	29
75	Experimental classification of surface waves in optical coherence elastography. Proceedings of SPIE, 2016, , .	0.8	8
76	Crawling wave optical coherence elastography. Optics Letters, 2016, 41, 847.	3.3	26
77	Biological Effects of Low-Frequency Shear Strain: PhysicalÂDescriptors. Ultrasound in Medicine and Biology, 2016, 42, 1-15.	1.5	4
78	Oestreicher and elastography. Journal of the Acoustical Society of America, 2015, 138, 2317-2325.	1.1	11
79	Shear Wave Dispersion in Lean Versus Steatotic Rat Livers. Journal of Ultrasound in Medicine, 2015, 34, 1123-1129.	1.7	26
80	Effects of aberration in crawling wave sonoelastography. , 2015, , .		1
81	Effects of data acquisition parameters on the quality of sonoelastographic imaging. , 2015, 2015, 3839-42.		0
82	Methodology to study the three-dimensional spatial distribution of prostate cancer and their dependence on clinical parameters. Journal of Medical Imaging, 2015, 2, 037502.	1.5	7
83	Crawling Waves Speed Estimation Based on the Dominant Component Analysis Paradigm. Ultrasonic Imaging, 2015, 37, 341-355.	2.6	4
84	What Do We Know About Shear Wave Dispersion in Normal and Steatotic Livers?. Ultrasound in Medicine and Biology, 2015, 41, 1481-1487.	1.5	37
85	Could Linear Hysteresis Contribute to Shear Wave Losses in Tissues?. Ultrasound in Medicine and Biology, 2015, 41, 1100-1104.	1.5	4
86	Real and causal hysteresis elements. Journal of the Acoustical Society of America, 2014, 135, 3381-3389.	1.1	21
87	Shear Wave Speed Estimation from Crawling Wave Sonoelastography: A comparison between AM-FM Dominant Component Analysis and Phase Derivation Methods. , 2014, , .		4
88	Shear Wave Speed and Dispersion Measurements Using Crawling Wave Chirps. Ultrasonic Imaging, 2014, 36, 277-290.	2.6	1
89	Elasticity Estimates from Images of Crawling Waves Generated by Miniature Surface Sources. Ultrasound in Medicine and Biology, 2014, 40, 685-694.	1.5	29
90	Physical Models of Tissue in Shear Fields11This article is dedicated to our friend and colleague, Robert C. Waag.. Ultrasound in Medicine and Biology, 2014, 40, 655-674.	1.5	42

#	Article	IF	Citations
91	Quantifying the passive stretching response of human tibialis anterior muscle using shear wave elastography. Clinical Biomechanics, 2014, 29, 33-39.	1.2	132
92	The Gaussian Shear Wave in a Dispersive Medium. Ultrasound in Medicine and Biology, 2014, 40, 675-684.	1.5	17
93	Correspondence - Apodization and windowing eigenfunctions. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2014, 61, 1575-1579.	3.0	6
94	Mouse Liver Dispersion for the Diagnosis of Early-Stage Fatty Liver Disease: A 70-Sample Study. Ultrasound in Medicine and Biology, 2014, 40, 704-713.	1.5	65
95	Relationship between shear elastic modulus and passive muscle force: An ex-vivo study. Journal of Biomechanics, 2013, 46, 2053-2059.	2.1	151
96	Correspondence: Apodization and Windowing Functions. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2013, 60, 1263-1271.	3.0	34
97	Superresolution imaging in ultrasound B-scan imaging. Proceedings of Meetings on Acoustics, 2013, , .	0.3	1
98	On the use of dual acoustic radiation forces to induce shear wave propagation and interference pattern formation. , 2012, , .		0
99	Superresolution imaging of scatterers in ultrasound B-scan imaging. Journal of the Acoustical Society of America, 2012, 131, 4680-4689.	1.1	13
100	Integration of Crawling Waves in an Ultrasound Imaging System. Part 2: Signal Processing and Applications. Ultrasound in Medicine and Biology, 2012, 38, 312-323.	1.5	48
101	Shear Wave Dispersion Measures Liver Steatosis. Ultrasound in Medicine and Biology, 2012, 38, 175-182.	1.5	121
102	Integration of Crawling Waves in an Ultrasound Imaging System. Part 1: System and Design Considerations. Ultrasound in Medicine and Biology, 2012, 38, 296-311.	1.5	29
103	Crawling wave detection of prostate cancer: Preliminaryin vitroresults. Medical Physics, 2011, 38, 2563-2571.	3.0	4
104	Two-Dimensional Sonoelastographic Shear Velocity Imaging. Ultrasound in Medicine and Biology, 2008, 34, 276-288.	1.5	83
105	Elastography in the Management of Liver Disease. Ultrasound in Medicine and Biology, 2008, 34, 1535-1546.	1.5	43
106	Quantitative Characterization of Viscoelastic Properties of Human Prostate Correlated with Histology. Ultrasound in Medicine and Biology, 2008, 34, 1033-1042.	1.5	188
107	Quantitative sonoelastography for the<i>in vivo</i>assessment of skeletal muscle viscoelasticity. Physics in Medicine and Biology, 2008, 53, 4063-4080.	3.0	147
108	Tissue elasticity properties as biomarkers for prostate cancer. Cancer Biomarkers, 2008, 4, 213-225.	1.7	245

#	Article	IF	Citations
109	Real-Time Shear Velocity Imaging Using Sonoelastographic Techniques. Ultrasound in Medicine and Biology, 2007, 33, 1086-1097.	1.5	98
110	Congruence of Imaging Estimators and Mechanical Measurements of Viscoelastic Properties of Soft Tissues. Ultrasound in Medicine and Biology, 2007, 33, 1617-1631.	1.5	100
111	Sonoelastographic imaging of interference patterns for estimation of shear velocity distribution in biomaterials. Journal of the Acoustical Society of America, 2006, 120, 535-545.	1.1	72
112	A unified view of imaging the elastic properties of tissue. Journal of the Acoustical Society of America, 2005, 117, 2705-2712.	1.1	125
113	Sonoelastographic imaging of interference patterns for estimation of the shear velocity of homogeneous biomaterials. Physics in Medicine and Biology, 2004, 49, 911-922.	3.0	118
114	Sonographic investigation of flow patterns in the perfused human placenta and their modulation by vasoactive agents with enhanced visualization by the ultrasound contrast agent albunex. , 1999, 27, 513-522.		19
115	Title is missing!. Journal of Signal Processing Systems, 1997, 17, 201-214.	1.0	3
116	Acoustic coupling from a focused transducer to a flat plate and back to the transducer. Journal of the Acoustical Society of America, 1994, 95, 3049-3054.	1.1	41
117	Radiation pattern of a focused transducer: A numerically convergent solution. Journal of the Acoustical Society of America, 1993, 94, 2979-2991.	1.1	50
118	New approaches to nonlinear diffractive field propagation. Journal of the Acoustical Society of America, 1991, 90, 488-499.	1.1	157
119	New approaches to the linear propagation of acoustic fields. Journal of the Acoustical Society of America, 1991, 90, 507-521.	1.1	87
120	Segmentation of speckle images based on level-crossing statistics. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1991, 8, 490.	1.5	5
121	On estimating the amplitude of harmonic vibration from the Doppler spectrum of reflected signals. Journal of the Acoustical Society of America, 1990, 88, 2702-2712.	1.1	75
122	â€œSonoelasticityâ€•images derived from ultrasound signals in mechanically vibrated tissues. Ultrasound in Medicine and Biology, 1990, 16, 231-239.	1.5	424
123	Application of Ultrasonic Waves to Detect Sealworms in Fish Tissue. Journal of Food Science, 1989, 54, 244-247.	3.1	21
124	Contrast agents in diagnostic ultrasound. Ultrasound in Medicine and Biology, 1989, 15, 319-333.	1.5	322
125	Sono-Elasticity: Medical Elasticity Images Derived from Ultrasound Signals in Mechanically Vibrated Targets. Acoustical Imaging, 1988, , 317-327.	0.2	176
126	Attenuation measurement uncertainties caused by speckle statistics. Journal of the Acoustical Society of America, 1986, 80, 727-734.	1.1	32

#	ARTICLE	IF	CITATIONS
127	Quantitative Tissue Characterzation Based on Pulsed-Echo Ultrasound Scans. IEEE Transactions on Biomedical Engineering, 1986, BME-33, 637-643.	4.2	9
128	Carbon Tetrachioride Induced Changes in Ultrasonic Properties of Liver. IEEE Transactions on Biomedical Engineering, 1986, BME-33, 453-460.	4.2	8
129	Effects of heat conduction and sample size on ultrasonic absorption measurements. Journal of the Acoustical Society of America, 1985, 77, 719-725.	1.1	38
130	Partially coherent radiation from reverberant chambers. Journal of the Acoustical Society of America, 1984, 76, 309-313.	1.1	5
131	Measurement of Ultrasonic Attenuation Within Regions Selected from B-Scan Images. IEEE Transactions on Biomedical Engineering, 1983, BME-30, 431-437.	4.2	70
132	Ultrasonic attenuation and absorption in liver tissue. Ultrasound in Medicine and Biology, 1983, 9, 363-369.	1.5	143
133	The thermal pulse decay technique for measuring ultrasonic absorption coefficients. Journal of the Acoustical Society of America, 1983, 74, 1356-1361.	1.1	63