

Kathryn R Nightingale

List of Publications by Year in descending order

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78
papers

5,829
citations

230014

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48
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docs citations

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times ranked

4113
citing authors

#	ARTICLE	IF	CITATIONS
1	Full Characterization of <i>in vivo</i> Muscle as an Elastic, Incompressible, Transversely Isotropic Material Using Ultrasonic Rotational 3D Shear Wave Elasticity Imaging. IEEE Transactions on Medical Imaging, 2022, 41, 133-144.	5.4	23
2	Assessing cardiac stiffness using ultrasound shear wave elastography. Physics in Medicine and Biology, 2022, 67, 02TR01.	1.6	22
3	Methods of monitoring thermal ablation of soft tissue tumors – A comprehensive review. Medical Physics, 2022, 49, 769-791.	1.6	23
4	Phase and group velocities for shear wave propagation in an incompressible, hyperelastic material with uniaxial stretch. Physics in Medicine and Biology, 2022, 67, 095015.	1.6	2
5	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.	0.8	25
6	Semi-automated weak annotation for deep neural network skin thickness measurement. Ultrasonic Imaging, 2021, 43, 167-174.	1.4	1
7	Quantifying the Effect of Abdominal Body Wall on In Situ Peak Rarefaction Pressure During Diagnostic Ultrasound Imaging. Ultrasound in Medicine and Biology, 2021, 47, 1548-1558.	0.7	1
8	Deep Convolutional Neural Networks for Displacement Estimation in ARFI Imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 2472-2481.	1.7	9
9	Prostate Cancer Detection Using 3-D Shear Wave Elasticity Imaging. Ultrasound in Medicine and Biology, 2021, 47, 1670-1680.	0.7	8
10	On the Relationship between Spatial Coherence and In Situ Pressure for Abdominal Imaging. Ultrasound in Medicine and Biology, 2021, 47, 2310-2320.	0.7	3
11	Uniqueness of shear wave modeling in an incompressible, transversely isotropic (ITI) material. Physics in Medicine and Biology, 2021, 66, .	1.6	3
12	Quantification of Skeletal Muscle Fiber Orientation in 3D Ultrasound B-Modes. , 2021, , .		1
13	Factors Affecting <i>in vivo</i> SH and SV Mode Wave Propagation in vastus lateralis Muscle at Varying Knee Flexion Angles Using Ultrasonic Rotational 3D SWEI. , 2021, , .		2
14	Multiparametric Ultrasound for Targeting Prostate Cancer: Combining ARFI, SWEI, QUS and B-Mode. Ultrasound in Medicine and Biology, 2020, 46, 3426-3439.	0.7	11
15	On the Challenges Associated with Obtaining Reproducible Measurements Using SWEI in the Median Nerve. Ultrasound in Medicine and Biology, 2020, 46, 1092-1104.	0.7	7
16	Tractable calculation of the Green's tensor for shear wave propagation in an incompressible, transversely isotropic material. Physics in Medicine and Biology, 2020, 65, 015014.	1.6	24
17	Analysis of multiple shear wave modes in a nonlinear soft solid: Experiments and finite element simulations with a tilted acoustic radiation force. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 107, 103754.	1.5	12
18	Viscoelastic Characterization in Muscle using Group Speed Analysis and Volumetric Shear Wave Elasticity Imaging. , 2020, , .		1

#	ARTICLE	IF	CITATIONS
19	Measuring elastic nonlinearity in a soft solid using a tilted acoustic radiation force for shear wave excitation. , 2019, , .		0
20	Robust Model-Based Viscoelastic Characterization of QIBA Phantoms through Fractional Derivative Group Shear Wave Speeds. , 2019, , .		0
21	Comparison of Deep Learning and Classical Image Processing for Skin Segmentation. , 2019, , .		2
22	Bayesian Shear Wave Speed Reconstruction with an On-Axis ARFI Prior. , 2019, , .		0
23	Large Field-Of-View Shear Wave Elasticity Imaging with Combined On- and Off-Axis Stiffness Estimation for High Frame Rate Hepatic HCC Screening. , 2019, , .		0
24	A Fully Convolutional Neural Network for Rapid Displacement Estimation in ARFI Imaging. , 2019, , .		2
25	Multiparametric Ultrasound for the Targeting of Prostate Cancer using ARFI, SWEI, B-mode, and QUS. , 2019, , .		1
26	Impact of Acoustic Radiation Force Excitation Geometry on Shear Wave Dispersion and Attenuation Estimates. Ultrasound in Medicine and Biology, 2018, 44, 897-908.	0.7	19
27	Evaluating the Benefit of Elevated Acoustic Output in Harmonic Motion Estimation in Ultrasonic Shear Wave Elasticity Imaging. Ultrasound in Medicine and Biology, 2018, 44, 303-310.	0.7	14
28	Anisotropic Constructive Shearwave Interference Measurement of Transversely Anisotropic Materials. , 2018, , .		0
29	Prostate Shear Wave Elastography: Multiresolution Reconstruction Dependence on Push Beam Spacing. , 2018, , .		3
30	Correlation Between 3D ARFI and Quantitative Imaging Metrics from SWEI and Multi-Parametric MRI in Vivo in Normal and Cancerous Prostate Tissue. , 2018, , .		0
31	Characterization of Viscoelastic Materials Using Group Shear Wave Speeds. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 780-794.	1.7	40
32	Quantifying Image Quality Improvement Using Elevated Acoustic Output in B-Mode Harmonic Imaging. Ultrasound in Medicine and Biology, 2017, 43, 2416-2425.	0.7	25
33	Ultrasonic Shear Wave Elasticity Imaging Sequencing and Data Processing Using a Verasonics Research Scanner. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2017, 64, 164-176.	1.7	85
34	Group shear wave based viscoelastic parameter estimation in SWEI: Analysis of sources of bias. , 2017, , .		2
35	Dispersion analysis in skin using FEM: Characterizing the effects of the lower boundary material on the propagation of shear waves. , 2016, , .		1
36	Identifying Clinically Significant Prostate Cancers using 3-D In-Vivo Acoustic Radiation Force Impulse Imaging with Whole-Mount Histology Validation. Ultrasound in Medicine and Biology, 2016, 42, 1251-1262.	0.7	38

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37	On System-Dependent Sources of Uncertainty and Bias in Ultrasonic Quantitative Shear-Wave Imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 381-393.	1.7	24
38	An analytic, Fourier domain description of shear wave propagation in a viscoelastic medium using asymmetric Gaussian sources. Journal of the Acoustical Society of America, 2015, 138, 1012-1022.	0.5	56
39	Single- and Multiple-Track-Location Shear Wave and Acoustic Radiation Force Impulse Imaging: Matched Comparison of Contrast, Contrast-to-Noise Ratio and Resolution. Ultrasound in Medicine and Biology, 2015, 41, 1043-1057.	0.7	61
40	WFUMB Guidelines and Recommendations for Clinical Use of Ultrasound Elastography: Part 2: Breast. Ultrasound in Medicine and Biology, 2015, 41, 1148-1160.	0.7	368
41	A Theoretical Study of Inertial Cavitation from Acoustic Radiation Force Impulse Imaging and Implications for the Mechanical Index1. Ultrasound in Medicine and Biology, 2015, 41, 472-485.	0.7	38
42	Analysis of rapid multi-focal-zone ARFI imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2015, 62, 280-289.	1.7	27
43	Analyzing the Impact of Increasing Mechanical Index and Energy Deposition on Shear Wave Speed Reconstruction in Human Liver. Ultrasound in Medicine and Biology, 2015, 41, 1948-1957.	0.7	40
44	Conditionally Increased Acoustic Pressures in Nonfetal Diagnostic Ultrasound Examinations Without Contrast Agents: A Preliminary Assessment. Journal of Ultrasound in Medicine, 2015, 34, 1-41.	0.8	48
45	WFUMB Guidelines and Recommendations for Clinical Use of Ultrasound Elastography: Part 1: Basic Principles and Terminology. Ultrasound in Medicine and Biology, 2015, 41, 1126-1147.	0.7	718
46	WFUMB Guidelines and Recommendations for Clinical Use of Ultrasound Elastography: Part 3: Liver. Ultrasound in Medicine and Biology, 2015, 41, 1161-1179.	0.7	620
47	Preliminary Results on the Feasibility of Using ARFI/SWEI to Assess Cutaneous Sclerotic Diseases. Ultrasound in Medicine and Biology, 2015, 41, 2806-2819.	0.7	53
48	B-Mode and Acoustic Radiation Force Impulse (ARFI) Imaging of Prostate Zonal Anatomy. Ultrasonic Imaging, 2015, 37, 22-41.	1.4	19
49	Micro-elasticity (μ-E): CNR and resolution of acoustic radiation force impulse imaging and single- and multiple track location shear wave elasticity imaging for visualizing small targets. , 2014, , .		3
50	Dependence of shear wave spectral content on acoustic radiation force excitation duration and spatial beamwidth. , 2014, , .		24
51	Analyzing the impact of increasing Mechanical Index (MI) and energy deposition on shear wave speed (SWS) reconstruction in human liver. , 2014, , .		0
52	Acoustic radiation force elasticity imaging in diagnostic ultrasound. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2013, 60, 685-701.	1.7	248
53	Imaging Transverse Isotropic Properties of Muscle by Monitoring Acoustic Radiation Force Induced Shear Waves Using a 2-D Matrix Ultrasound Array. IEEE Transactions on Medical Imaging, 2013, 32, 1671-1684.	5.4	101
54	3D elasticity imaging with acoustic radiation force. , 2013, , .		0

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55	3D shear wave imaging of anisotropic mechanical properties of muscle using a 2D matrix array transducer. , 2012, , .		0
56	Should the mechanical index be revised for ARFI imaging?. , 2012, 2012, 17-20.		5
57	Noninvasive evaluation of hepatic fibrosis using acoustic radiation force-based shear stiffness in patients with nonalcoholic fatty liver disease. Journal of Hepatology, 2011, 55, 666-672.	1.8	318
58	Acoustic radiation force-based elasticity imaging methods. Interface Focus, 2011, 1, 553-564.	1.5	167
59	Improving shear wave speed estimation precision in homogeneous media by tracking shear wave propagation in 3D using a real-time volumetric imaging transducer. , 2011, , .		1
60	Comparison of qualitative and quantitative acoustic radiation force based elasticity imaging methods. , 2011, , .		5
61	Comparison between Acoustic Radiation Force Impulse (ARFI)-based hepatic stiffness quantification in deformed and undeformed pressurized canine livers. , 2011, , .		1
62	Improving precision of tissue shear modulus quantification within the region of acoustic radiation force excitation with compounded displacement estimates. , 2010, , .		1
63	Robust estimation of time-of-flight shear wave speed using a radon sum transformation. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2010, 57, 2662-2670.	1.7	123
64	Quantifying the impact of shear wavelength and kernel size on shear wave speed estimation. , 2010, , .		10
65	Robust estimation of time-of-flight shear wave speed using a Radon sum transformation. , 2010, , .		7
66	Concurrent ARFI imaging and HIFU ablation using a diagnostic transducer array and ultrasound system with custom beam sequences. , 2009, , .		1
67	Robust hepatic shear modulus reconstruction using acoustic radiation force and RANSAC. , 2009, , .		0
68	Investigating the effects of viscosity on focused, impulsive, acoustic radiation force induced shear wave morphology. , 2008, , .		0
69	A parallel tracking method for acoustic radiation force impulse imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2007, 54, 301-312.	1.7	122
70	Ultrasonic tracking of acoustic radiation force-induced displacements in homogeneous media. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2006, 53, 1300-1313.	1.7	157
71	Analysis of contrast in images generated with transient acoustic radiation force. Ultrasound in Medicine and Biology, 2006, 32, 61-72.	0.7	102
72	A finite-element method model of soft tissue response to impulsive acoustic radiation force. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2005, 52, 1699-1712.	1.7	291

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73	Shear-wave generation using acoustic radiation force: in vivo and ex vivo results. <i>Ultrasound in Medicine and Biology</i> , 2003, 29, 1715-1723.	0.7	557
74	Estimates of echo correlation and measurement bias in acoustic radiation force impulse imaging. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2003, 50, 631-641.	1.7	79
75	Observations of Tissue Response to Acoustic Radiation Force: Opportunities for Imaging. <i>Ultrasonic Imaging</i> , 2002, 24, 129-138.	1.4	125
76	Acoustic Radiation Force Impulse Imaging of <i>In Vivo</i> Vastus Medialis Muscle Under Varying Isometric Load. <i>Ultrasonic Imaging</i> , 2002, 24, 100-108.	1.4	84
77	On the feasibility of remote palpation using acoustic radiation force. <i>Journal of the Acoustical Society of America</i> , 2001, 110, 625-634.	0.5	726
78	A Finite Element Model of Remote Palpation of Breast Lesions Using Radiation Force: Factors Affecting Tissue Displacement. <i>Ultrasonic Imaging</i> , 2000, 22, 35-54.	1.4	89