Raffaella Righetti

List of Publications by Year
in descending order

51 papers	1,536 citations	430442 18 h-index	315357 38 g-index
51 all docs	51 docs citations	51 times ranked	1051 citing authors

#	Article	IF	Citations
1	Elastography: Imaging the elastic properties of soft tissues with ultrasound. Journal of Medical Ultrasonics (2001), 2002, 29, 155-171.	0.6	286
2	Elastographic characterization of HIFU-induced lesions in canine livers. Ultrasound in Medicine and Biology, 1999, 25, 1099-1113.	0.7	185
3	The feasibility of elastographic visualization of HIFU-induced thermal lesions in soft tissues. Ultrasound in Medicine and Biology, 1999, 25, 641-647.	0.7	118
4	Axial resolution in elastography. Ultrasound in Medicine and Biology, 2002, 28, 101-113.	0.7	115
5	The feasibility of using elastography for imaging the Poisson's ratio in porous media. Ultrasound in Medicine and Biology, 2004, 30, 215-228.	0.7	109
6	Lateral resolution in elastography. Ultrasound in Medicine and Biology, 2003, 29, 695-704.	0.7	68
7	The feasibility of using poroelastographic techniques for distinguishing between normal and lymphedematous tissues<i>in vivo</i>. Physics in Medicine and Biology, 2007, 52, 6525-6541.	1.6	62
8	A method for generating permeability elastograms and Poissonâ€™s ratio time-constant elastograms. Ultrasound in Medicine and Biology, 2005, 31, 803-816.	0.7	46
9	Non-invasive imaging of Youngâ€™s modulus and Poissonâ€™s ratio in cancers in vivo. Scientific Reports, 2020, 10, 7266.	1.6	43
10	The feasibility of estimating and imaging the mechanical behavior of poroelastic materials using axial strain elastography. Physics in Medicine and Biology, 2007, 52, 3241-3259.	1.6	38
11	A New Method for Estimating the Effective Poissonâ€™s Ratio in Ultrasound Poroelastography. IEEE Transactions on Medical Imaging, 2018, 37, 1178-1191.	5.4	35
12	Assessing image quality in effective Poisson's ratio elastography and poroelastography: I. Physics in Medicine and Biology, 2007, 52, 1303-1320.	1.6	26
13	Resolution of axial shear strain elastography. Physics in Medicine and Biology, 2006, 51, 5245-5257.	1.6	25
14	Elastography: A Decade of Progress (2000-2010). Current Medical Imaging, 2011, 7, 292-312.	0.4	25
15	A New Method for Generating Poroelastograms in Noisy Environments. Ultrasonic Imaging, 2005, 27, 201-220.	1.4	22
16	Characterization of controlled bone defects using 2D and 3D ultrasound imaging techniques. Physics in Medicine and Biology, 2010, 55, 4839-4859.	1.6	22
17	Performance Analysis of a New Real-Time Elastographic Time Constant Estimator. IEEE Transactions on Medical Imaging, 2011, 30, 497-511.	5.4	22
18	Elastography Using Harmonic Ultrasonic Imaging: A Feasibility Study. Ultrasonic Imaging, 2010, 32, 103-117.	1.4	21

#	Article	IF	Citations
19	An analytical poroelastic model of a spherical tumor embedded in normal tissue under creep compression. Journal of Biomechanics, 2019, 89, 48-56.	0.9	18
20	A hybrid CPU-GPGPU approach for real-time elastography. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 2631-2645.	1.7	16
21	Estimation of Vascular Permeability in Irregularly Shaped Cancers Using Ultrasound Poroelastography. IEEE Transactions on Biomedical Engineering, 2020, 67, 1083-1096.	2.5	15
22	Non-Invasive Assessment of the Spatial and Temporal Distributions of Interstitial Fluid Pressure, Fluid Velocity and Fluid Flow in Cancers <i>In Vivo</i>. IEEE Access, 2021, 9, 89222-89233.	2.6	15
23	Ultrasound elastography assessment of bone/soft tissue interface. Physics in Medicine and Biology, 2016, 61, 131-150.	1.6	14
24	An analytical poroelastic model for ultrasound elastography imaging of tumors. Physics in Medicine and Biology, 2018, 63, 025031.	1.6	14
25	Effect of Permeability on the Performance of Elastographic Imaging Techniques. IEEE Transactions on Medical Imaging, 2013, 32, 189-199.	5.4	12
26	Effect of Interstitial Fluid Pressure on Ultrasound Axial Strain and Axial Shear Strain Elastography. Ultrasonic Imaging, 2017, 39, 137-146.	1.4	12
27	Non-Invasive Imaging of Normalized Solid Stress in Cancers in Vivo. IEEE Journal of Translational Engineering in Health and Medicine, 2019, 7, 1-9.	2.2	12
28	Effect of bone-soft tissue friction on ultrasound axial shear strain elastography. Physics in Medicine and Biology, 2017, 62, 6074-6091.	1.6	11
29	A CNN-based method to reconstruct 3-D spine surfaces from US images in vivo. Medical Image Analysis, 2021, 74, 102221.	7.0	11
30	Spine surface detection from local phaseâ€symmetry enhanced ridges in ultrasound images. Medical Physics, 2017, 44, 5755-5767.	1.6	10
31	A model-based approach to investigate the effect of elevated interstitial fluid pressure on strain elastography. Physics in Medicine and Biology, 2018, 63, 215011.	1.6	10
32	A Model-Based Approach to Investigate the Effect of a Long Bone Fracture on Ultrasound Strain Elastography. IEEE Transactions on Medical Imaging, 2018, 37, 2704-2717.	5.4	10
33	Identification of ultrasound imaging markers to quantify long bone regeneration in a segmental tibial defect sheep model in vivo. Scientific Reports, 2020, 10, 13646.	1.6	10
34	A New Class of Phantom Materials for Poroelastography Imaging Techniques. Ultrasound in Medicine and Biology, 2016, 42, 1230-1238.	0.7	9
35	A New Poroelastography Method to Assess the Solid Stress Distribution in Cancers. IEEE Access, 2019, 7, 103404-103415.	2.6	8
36	Effect of Temporal Acquisition Parameters on Image Quality of Strain Time Constant Elastography. Ultrasonic Imaging, 2015, 37, 87-100.	1.4	6

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37	Characterization of ventral incisional hernia and repair using shear wave elastography. Journal of Surgical Research, 2017, 210, 244-252.	0.8	6
38	A novel filter for accurate estimation of fluid pressure and fluid velocity using poroelastography. Computers in Biology and Medicine, 2018, 101, 90-99.	3.9	6
39	An Analytical Poroelastic Model of a Nonhomogeneous Medium Under Creep Compression for Ultrasound Poroelastography Applicationsâ€"Part I. Journal of Biomechanical Engineering, 2019, 141, .	0.6	6
40	Estimation of mechanical parameters in cancers by empirical orthogonal function analysis of poroelastography data. Computers in Biology and Medicine, 2019, 111, 103343.	3.9	5
41	A Robust Method to Estimate the Time Constant of Elastographic Parameters. IEEE Transactions on Medical Imaging, 2019, 38, 1358-1370.	5.4	5
42	Ultrasound shear wave elastography effectively predicts integrity of ventral hernia repair using acellular dermal matrix augmented with platelet-rich plasma (PRP). Surgical Endoscopy and Other Interventional Techniques, 2019, 33, 2802-2811.	1.3	5
43	An Analytical Poroelastic Model of a Nonhomogeneous Medium Under Creep Compression for Ultrasound Poroelastography Applicationsâ€"Part II. Journal of Biomechanical Engineering, 2019, 141, .	0.6	5
44	Assessment of the long bone inter-fragmentary gap size in ultrasound strain elastograms. Physics in Medicine and Biology, 2019, 64, 025014.	1.6	4
45	Bone surface enhancement in ultrasound images using a new Doppler-based acquisition/processing method. Physics in Medicine and Biology, 2018, 63, 025035.	1.6	3
46	An Analysis of the Error Associated to Single and Double Exponential Approximations of Theoretical Poroelastic Models. Ultrasonic Imaging, 2019, 41, 94-114.	1.4	3
47	Modeling and Analysis of Ultrasound Elastographic Axial Strains for Spine Fracture Identification. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2020, 67, 898-909.	1.7	3
48	Fundamental image quality parameters of poroelastography. , 2011, , .		1
49	Platelet-Rich Plasma Enhances Mechanical Properties of Non-Crosslinked Acellular Dermal Matricies in Rat Model of Ventral Hernia Repair. Journal of the American College of Surgeons, 2015, 221, S76.	0.2	1
50	A Spline Interpolationâ€"based Data Reconstruction Technique for Estimation of Strain Time Constant in Ultrasound Poroelastography. Ultrasonic Imaging, 2020, 42, 5-14.	1.4	1
51	Ultrasound estimation of strain time constant and vascular permeability in tumors using a CEEMDAN and linear regression-based method. Computers in Biology and Medicine, 2022, 148, 105707.	3.9	1