Jean-Gabriel Minonzio

List of Publications by Year
in descending order

77 papers	1,175 citations	331670 21 h-index	395702 33 g-index
84 all docs	84 docs citations	84 times ranked	637 citing authors

#	Article	IF	Citations
1	Using Low-Resolution Non-Invasive Infrared Sensors to Classify Activities and Falls in Older Adults. Sensors, 2022, 22, 2321.	3.8	7
2	In vivo pulse-echo measurement of apparent broadband attenuation and Q factor in cortical bone: a preliminary study. Physics in Medicine and Biology, 2021, 66, 155002.	3.0	7
3	A Systematic approach to improve Support Vector Machine applied to ultrasonic guided wave spectrum image classification. , 2021, , .		0
4	Extraction of the First-Arriving-Signal and Fundamental Flexural Guided Wave Using a Radon Transform Based Approach Applied to Ultrasonic Characterization of Cortical Bone. , 2021, , .		2
5	A simplified homogenization model applied to viscoelastic behavior of cortical bone at ultrasonic frequencies. Journal of Biomechanics, 2021, 131, 110868.	2.1	1
6	Real Time Waveguide Parameter Estimation Using Sparse Multimode Disperse Radon Transform. , 2021, , .		1
7	Selection of Bone fragility-Related Features Obtained with Bi-Directional Axial Transmission, Through a Machine Learning Strategy. , 2021, , .		1
8	Automatic Classifying of Patients With Non-Traumatic Fractures Based on Ultrasonic Guided Wave Spectrum Image Using a Dynamic Support Vector Machine. IEEE Access, 2020, 8, 194752-194764.	4.2	20
9	eHomeSeniors Dataset: An Infrared Thermal Sensor Dataset for Automatic Fall Detection Research. Sensors, 2019, 19, 4565.	3.8	31
10	Ultrasound-Based Estimates of Cortical Bone Thickness and Porosity Are Associated With Nontraumatic Fractures in Postmenopausal Women: A Pilot Study. Journal of Bone and Mineral Research, 2019, 34, 1585-1596.	2.8	44
11	Ex vivo cortical porosity and thickness predictions at the tibia using full-spectrum ultrasonic guided-wave analysis. Archives of Osteoporosis, 2019, 14, 21.	2.4	24
12	In Vivo Measurements of Cortical Thickness and Porosity at the Proximal Third of the Tibia Using Guided Waves: Comparison with Site-Matched Peripheral Quantitative Computed Tomography and Distal High-Resolution Peripheral Quantitative Computed Tomography. Ultrasound in Medicine and Biology, 2019, 45, 1234-1242.	1.5	39
13	In Vivo Estimation of Cortical Thickness and Porosity by Axial Transmission: Comparison with High Resolution Computed Tomography. , 2018, , .		0
14	Ex Vivo Radius Fracture Discrimination from Cortical Thickness and Porosity Obtained by Axial Transmission. , 2018, , .		2
15	Roof-integrated dew water harvesting in CombarbalÃ¡, Chile. Journal of Water Supply: Research and Technology - AQUA, 2018, 67, 357-374.	1.4	16
16	Bone cortical thickness and porosity assessment using ultrasound guided waves: An ex vivo validation study. Bone, 2018, 116, 111-119.	2.9	48
17	Dispersive Radon transform. Journal of the Acoustical Society of America, 2018, 143, 2729-2743.	1.1	31
18	Predicting bone strength with ultrasonic guided waves. Scientific Reports, 2017, 7, 43628.	3.3	55

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19	Dispersion characteristics of the flexural wave assessed using low frequency (50â€“150 kHz) point-contact transducers: A feasibility study on bone-mimicking phantoms. Ultrasonics, 2017, 81, 1-9.	3.9	13
20	Notice of Removal: The elastic properties of human cortical bone measured by resonant ultrasound spectroscopy at multiple skeletal sites. , 2017, , .		1
21	<italic>In Vivo</italic> Characterization of Cortical Bone Using Guided Waves Measured by Axial Transmission. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 1361-1371.	3.0	51
22	Measurement of dispersion curves of circumferential guided waves radiating from curved shells: Theory and numerical validation. Journal of the Acoustical Society of America, 2016, 139, 790-799.	1.1	4
23	Multichannel wideband mode-selective excitation of ultrasonic guided waves in long cortical bone. , 2016, , .		5
24	Multichannel processing for dispersion curves extraction of ultrasonic axial-transmission signals: Comparisons and case studies. Journal of the Acoustical Society of America, 2016, 140, 1758-1770.	1.1	29
25	Sparse SVD Method for High-Resolution Extraction of the Dispersion Curves of Ultrasonic Guided Waves. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 1514-1524.	3.0	61
26	Genetic algorithms-based inversion of multimode guided waves for cortical bone characterization. Physics in Medicine and Biology, 2016, 61, 6953-6974.	3.0	42
27	A method for the measurement of dispersion curves of circumferential guided waves radiating from curved shells: experimental validation and application to a femoral neck mimicking phantom. Physics in Medicine and Biology, 2016, 61, 4746-4762.	3.0	6
28	A free plate model can predict guided modes propagating in tubular bone-mimicking phantoms. Journal of the Acoustical Society of America, 2015, 137, EL98-EL104.	1.1	25
29	Prospective discrimination of vertebral fractures by axial transmission ultrasound using optimized first arriving signal velocity measurements. , 2015, , .		2
30	An anisotropic bilayer model to gain insight into in-vivo guided wave measurements. , 2015, , .		0
31	A genetic algorithms-based optimization method for estimating thickness and porosity of cortical bone from guided wave measurements. , 2015, , .		0
32	Sparse inversion SVD method for dispersion extraction of ultrasonic guided waves in cortical bone. , 2015, , .		1
33	Multisite ultrasound axial transmission study in postmenopausal women using optimized first arriving signal velocity measurements. , 2015, , .		2
34	Numerical estimation of femoral neck cortical bone thickness based on time domain topological energy and sparse signal approximation. , 2015, , .		0
35	Discrimination of fractured from non-fractured post-menopausal women using guided wave-based ultrasound: A pilot clinical study. , 2015, , .		0
36	Measuring the wavenumber of guided modes in waveguides with linearly varying thickness. Journal of the Acoustical Society of America, 2014, 135, 2614-2624.	1.1	29

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37	Accurate measurement of guided modes in a plate using a bidirectional approach. Journal of the Acoustical Society of America, 2014, 135, EL15-EL21.	1.1	19
38	In vivo measurements of guided waves at the forearm. , 2014, , .		3
39	Detection of elastic guided waves using an axial transmission method: Performance comparison between PZT and cMUT technologies. , 2014, , .		1
40	Circumferential guided wave measurements of a cylindrical fluid-filled bone-mimicking phantom. Journal of the Acoustical Society of America, 2014, 135, 994-1001.	1.1	5
41	Non-destructive assessment of human ribs mechanical properties using quantitative ultrasound. Journal of Biomechanics, 2014, 47, 1548-1553.	2.1	6
42	A hybrid FDTD-Rayleigh integral computational method for the simulation of the ultrasound measurement of proximal femur. Ultrasonics, 2014, 54, 1197-1202.	3.9	3
43	Combined estimation of thickness and velocities using ultrasound guided waves: a pioneering study on in vitro cortical bone samples. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2014, 61, 1478-1488.	3.0	83
44	A capacitive micromachined ultrasonic transducer probe for assessment of cortical bone. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2014, 61, 710-723.	3.0	28
45	Coupling of finite difference elastodynamic and semi-analytic Rayleigh integral codes for the modelling of ultrasound propagation at the hip. Proceedings of Meetings on Acoustics, 2013, , .	0.3	0
46	Low frequency cMUT technology: Application to measurement of brain movement and assessment of bone quality. Irbm, 2013, 34, 159-166.	5.6	6
47	Axial transmission measurements of guided modes on bone phantoms and in vitro human bone specimen. Proceedings of Meetings on Acoustics, 2013, , .	0.3	1
48	Determination of bone properties from Lamb type of waves. Proceedings of Meetings on Acoustics, 2013, , .	0.3	1
49	Design, characterization and test of a multi-transmitters, multi-receivers probe based on cMUTs for cortical bone evaluation. , 2012, , .		0
50	Measurement of guided mode wavenumbers in soft tissueâ€“bone mimicking phantoms using ultrasonic axial transmission. Physics in Medicine and Biology, 2012, 57, 3025-3037.	3.0	32
51	Characterization of circumferential guided waves in a cylindrical cortical bone-mimicking phantom. Journal of the Acoustical Society of America, 2012, 131, EL289-EL294.	1.1	11
52	Cortical bone quality assessment using quantitative ultrasound on long bones. , 2012, 2012, 1121-4.		5
53	Dispersion curve measurements of a fluid filled femoral neck mimicking phantom. , 2012, , .		0
54	Circumferential guided wave measurement in a cortical bone-mimicking cylindrical phantom. , 2011, , .		0

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55	Impact of attenuation on guided mode wavenumber measurement in axial transmission on bone mimicking plates. Journal of the Acoustical Society of America, 2011, 130, 3574-3582.	1.1	57
56	Measurement of guided mode wave vectors by analysis of the transfer matrix obtained with multi-emitters and multi-receivers in contact. Journal of Physics: Conference Series, 2011, 269, 012003.	0.4	5
57	Guided mode measurement on bone phantoms with realistic geometry. , 2011, , .		0
58	Non-invasive assessment of human ribs mechanical properties. Computer Methods in Biomechanics and Biomedical Engineering, 2011, 14, 195-196.	1.6	4
59	Guided Waves in Cortical Bone. , 2011, , 147-179.		13
60	Measurement of guided mode wave numbers in anisotropic absorbing material: Application to cortical bone evaluation. , 2010, , .		0
61	Guided wave phase velocity measurement using multi-emitter and multi-receiver arrays in the axial transmission configuration. Journal of the Acoustical Society of America, 2010, 127, 2913-2919.	1.1	92
62	Experimental Study of the Invariants of the Time-Reversal Operator for a Dielectric Cylinder Using Separate Transmit and Receive Arrays. IEEE Transactions on Antennas and Propagation, 2010, 58, 1349-1356.	5.1	6
63	INFLUENCE OF NOISE ON SUBWAVELENGTH IMAGING OF TWO CLOSE SCATTERERS USING TIME REVERSAL METHOD: THEORY AND EXPERIMENTS. Progress in Electromagnetics Research, 2009, 98, 333-358.	4.4	31
64	Impact of a multi-frequency sequence of measurements on first arriving signal velocity on a bone plate model. , 2009, , .		2
65	Invariants of the time-reversal operator for a dielectric cylinder using different Tx and Rx arrays. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	0
66	Theory of the Time-Reversal Operator for a Dielectric Cylinder Using Separate Transmit and Receive Arrays. IEEE Transactions on Antennas and Propagation, 2009, 57, 2331-2340.	5.1	6
67	CHARACTERIZATION OF SMALL FLAWS IN SOLIDS WITH THE DORT METHOD. AIP Conference Proceedings, 2008, , .	0.4	0
68	Characterization of an elastic target in a shallow water waveguide by decomposition of the time-reversal operator. Journal of the Acoustical Society of America, 2008, 124, 779-787.	1.1	11
69	Characterization of an elastic cylinder and an elastic sphere with the time-reversal operator: application to the sub-resolution limit. Inverse Problems, 2008, 24, 025014.	2.0	14
70	Experimental detection and focusing in shallow water by decomposition of the time reversal operator. Journal of the Acoustical Society of America, 2007, 122, 761-768.	1.1	56
71	Gaussian beams and Legendre polynomials as invariants of the time reversal operator for a large rigid cylinder. Journal of the Acoustical Society of America, 2006, 120, 2746-2754.	1.1	18
72	Multiple scattering between two elastic cylinders and invariants of the time-reversal operator: Theory and experiment. Journal of the Acoustical Society of America, 2006, 120, 875-883.	1.1	12

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73	Characterization of subwavelength elastic cylinders with the decomposition of the time-reversal operator: Theory and experiment. Journal of the Acoustical Society of America, 2005, 117, 789-798.	1.1	25
74	First tests of the DORT method at 12 kHz in a shallow water waveguide. , 2005, , .		2
75	Application of the DORT method to the detection and characterization of two targets in a shallow water wave-guide. , 2005, , .		4
76	Design of a time reversal mirror for medium scale experiments. , 2005, , .		3
77	Decomposition of the time-reversal operator applied to quantitative characterization of small elastic cylinders. , 0, , .		4