

# Jean-Gabriel Minonzio

## List of Publications by Year in descending order

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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	Guided wave phase velocity measurement using multi-emitter and multi-receiver arrays in the axial transmission configuration. <i>Journal of the Acoustical Society of America</i> , 2010, 127, 2913-2919.	1.1	92
2	Combined estimation of thickness and velocities using ultrasound guided waves: a pioneering study on in vitro cortical bone samples. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2014, 61, 1478-1488.	3.0	83
3	Sparse SVD Method for High-Resolution Extraction of the Dispersion Curves of Ultrasonic Guided Waves. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2016, 63, 1514-1524.	3.0	61
4	Impact of attenuation on guided mode wavenumber measurement in axial transmission on bone mimicking plates. <i>Journal of the Acoustical Society of America</i> , 2011, 130, 3574-3582.	1.1	57
5	Experimental detection and focusing in shallow water by decomposition of the time reversal operator. <i>Journal of the Acoustical Society of America</i> , 2007, 122, 761-768.	1.1	56
6	Predicting bone strength with ultrasonic guided waves. <i>Scientific Reports</i> , 2017, 7, 43628.	3.3	55
7	<i>In Vivo</i> Characterization of Cortical Bone Using Guided Waves Measured by Axial Transmission. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2016, 63, 1361-1371.	3.0	51
8	Bone cortical thickness and porosity assessment using ultrasound guided waves: An ex vivo validation study. <i>Bone</i> , 2018, 116, 111-119.	2.9	48
9	Ultrasound-Based Estimates of Cortical Bone Thickness and Porosity Are Associated With Nontraumatic Fractures in Postmenopausal Women: A Pilot Study. <i>Journal of Bone and Mineral Research</i> , 2019, 34, 1585-1596.	2.8	44
10	Genetic algorithms-based inversion of multimode guided waves for cortical bone characterization. <i>Physics in Medicine and Biology</i> , 2016, 61, 6953-6974.	3.0	42
11	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. <i>Ultrasound in Medicine and Biology</i> , 2019, 45, 1234-1242.	1.5	39
12	Measurement of guided mode wavenumbers in soft tissue "bone mimicking phantoms using ultrasonic axial transmission. <i>Physics in Medicine and Biology</i> , 2012, 57, 3025-3037.	3.0	32
13	INFLUENCE OF NOISE ON SUBWAVELENGTH IMAGING OF TWO CLOSE SCATTERERS USING TIME REVERSAL METHOD: THEORY AND EXPERIMENTS. <i>Progress in Electromagnetics Research</i> , 2009, 98, 333-358.	4.4	31
14	Dispersive Radon transform. <i>Journal of the Acoustical Society of America</i> , 2018, 143, 2729-2743.	1.1	31
15	eHomeSeniors Dataset: An Infrared Thermal Sensor Dataset for Automatic Fall Detection Research. <i>Sensors</i> , 2019, 19, 4565.	3.8	31
16	Measuring the wavenumber of guided modes in waveguides with linearly varying thickness. <i>Journal of the Acoustical Society of America</i> , 2014, 135, 2614-2624.	1.1	29
17	Multichannel processing for dispersion curves extraction of ultrasonic axial-transmission signals: Comparisons and case studies. <i>Journal of the Acoustical Society of America</i> , 2016, 140, 1758-1770.	1.1	29
18	A capacitive micromachined ultrasonic transducer probe for assessment of cortical bone. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2014, 61, 710-723.	3.0	28

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19	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
20	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
21	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
22	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
23	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
24	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
25	Roof-integrated dew water harvesting in Combarbalá, Chile. Journal of Water Supply: Research and Technology - AQUA, 2018, 67, 357-374.	1.4	16
26	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
27	Dispersion characteristics of the flexural wave assessed using low frequency (50–150 kHz) point-contact transducers: A feasibility study on bone-mimicking phantoms. Ultrasonics, 2017, 81, 1-9.	3.9	13
28	Guided Waves in Cortical Bone. , 2011, , 147-179.		13
29	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
30	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
31	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
32	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
33	Using Low-Resolution Non-Invasive Infrared Sensors to Classify Activities and Falls in Older Adults. Sensors, 2022, 22, 2321.	3.8	7
34	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
35	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
36	Low frequency cMUT technology: Application to measurement of brain movement and assessment of bone quality. Irbm, 2013, 34, 159-166.	5.6	6

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37	Non-destructive assessment of human ribs mechanical properties using quantitative ultrasound. Journal of Biomechanics, 2014, 47, 1548-1553.	2.1	6
38	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
39	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
40	Cortical bone quality assessment using quantitative ultrasound on long bones. , 2012, 2012, 1121-4.		5
41	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
42	Multichannel wideband mode-selective excitation of ultrasonic guided waves in long cortical bone. , 2016, , .		5
43	Decomposition of the time-reversal operator applied to quantitative characterization of small elastic cylinders. , 0, , .		4
44	Application of the DORT method to the detection and characterization of two targets in a shallow water wave-guide. , 2005, , .		4
45	Non-invasive assessment of human ribs mechanical properties. Computer Methods in Biomechanics and Biomedical Engineering, 2011, 14, 195-196.	1.6	4
46	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
47	Design of a time reversal mirror for medium scale experiments. , 2005, , .		3
48	In vivo measurements of guided waves at the forearm. , 2014, , .		3
49	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
50	First tests of the DORT method at 12 kHz in a shallow water waveguide. , 2005, , .		2
51	Impact of a multi-frequency sequence of measurements on first arriving signal velocity on a bone plate model. , 2009, , .		2
52	Prospective discrimination of vertebral fractures by axial transmission ultrasound using optimized first arriving signal velocity measurements. , 2015, , .		2
53	Multisite ultrasound axial transmission study in postmenopausal women using optimized first arriving signal velocity measurements. , 2015, , .		2
54	Ex Vivo Radius Fracture Discrimination from Cortical Thickness and Porosity Obtained by Axial Transmission. , 2018, , .		2

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55	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
56	Detection of elastic guided waves using an axial transmission method: Performance comparison between PZT and cMUT technologies. , 2014, , .		1
57	Sparse inversion SVD method for dispersion extraction of ultrasonic guided waves in cortical bone. , 2015, , .		1
58	Notice of Removal: The elastic properties of human cortical bone measured by resonant ultrasound spectroscopy at multiple skeletal sites. , 2017, , .		1
59	Axial transmission measurements of guided modes on bone phantoms and in vitro human bone specimen. Proceedings of Meetings on Acoustics, 2013, , .	0.3	1
60	Determination of bone properties from Lamb type of waves. Proceedings of Meetings on Acoustics, 2013, , .	0.3	1
61	A simplified homogenization model applied to viscoelastic behavior of cortical bone at ultrasonic frequencies. Journal of Biomechanics, 2021, 131, 110868.	2.1	1
62	Real Time Waveguide Parameter Estimation Using Sparse Multimode Disperse Radon Transform. , 2021, , .		1
63	Selection of Bone fragility-Related Features Obtained with Bi-Directional Axial Transmission, Through a Machine Learning Strategy. , 2021, , .		1
64	CHARACTERIZATION OF SMALL FLAWS IN SOLIDS WITH THE DORT METHOD. AIP Conference Proceedings, 2008, , .	0.4	0
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	Measurement of guided mode wave numbers in anisotropic absorbing material: Application to cortical bone evaluation. , 2010, , .		0
67	Circumferential guided wave measurement in a cortical bone-mimicking cylindrical phantom. , 2011, , .		0
68	Guided mode measurement on bone phantoms with realistic geometry. , 2011, , .		0
69	Design, characterization and test of a multi-transmitters, multi-receivers probe based on cMUTs for cortical bone evaluation. , 2012, , .		0
70	Dispersion curve measurements of a fluid filled femoral neck mimicking phantom. , 2012, , .		0
71	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
72	An anisotropic bilayer model to gain insight into in-vivo guided wave measurements. , 2015, , .		0

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73	A genetic algorithms-based optimization method for estimating thickness and porosity of cortical bone from guided wave measurements. , 2015, , .		0
74	Numerical estimation of femoral neck cortical bone thickness based on time domain topological energy and sparse signal approximation. , 2015, , .		0
75	Discrimination of fractured from non-fractured post-menopausal women using guided wave-based ultrasound: A pilot clinical study. , 2015, , .		0
76	In Vivo Estimation of Cortical Thickness and Porosity by Axial Transmission: Comparison with High Resolution Computed Tomography. , 2018, , .		0
77	A Systematic approach to improve Support Vector Machine applied to ultrasonic guided wave spectrum image classification. , 2021, , .		0