Gregory T Clement

List of Publications by Year
in descending order

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93 papers	3,836 citations	201385 27 h-index	128067 60 g-index
110 all docs	110 docs citations	110 times ranked	2071 citing authors

#	Article	IF	Citations
1	Transcranial Magnetic Resonance Imagingâ€“ Guided Focused Ultrasound Surgery of Brain Tumors. Neurosurgery, 2010, 66, 323-332.	0.6	504
2	A non-invasive method for focusing ultrasound through the human skull. Physics in Medicine and Biology, 2002, 47, 1219-1236.	1.6	437
3	500-element ultrasound phased array system for noninvasive focal surgery of the brain: A preliminary rabbit study with ex vivo human skulls. Magnetic Resonance in Medicine, 2004, 52, 100-107.	1.9	320
4	Longitudinal and shear mode ultrasound propagation in human skull bone. Ultrasound in Medicine and Biology, 2006, 32, 1085-1096.	0.7	248
5	Pre-clinical testing of a phased array ultrasound system for MRI-guided noninvasive surgery of the brainâ€”A primate study. European Journal of Radiology, 2006, 59, 149-156.	1.2	211
6	A hemisphere array for non-invasive ultrasound brain therapy and surgery. Physics in Medicine and Biology, 2000, 45, 3707-3719.	1.6	174
7	Perspectives in clinical uses of high-intensity focused ultrasound. Ultrasonics, 2004, 42, 1087-1093.	2.1	165
8	Enhanced ultrasound transmission through the human skull using shear mode conversion. Journal of the Acoustical Society of America, 2004, 115, 1356-1364.	0.5	160
9	Investigation of a large-area phased array for focused ultrasound surgery through the skull. Physics in Medicine and Biology, 2000, 45, 1071-1083.	1.6	143
10	Clinical applications of focused ultrasoundâ€”The brain. International Journal of Hyperthermia, 2007, 23, 193-202.	1.1	110
11	Correlation of ultrasound phase with physical skull properties. Ultrasound in Medicine and Biology, 2002, 28, 617-624.	0.7	109
12	A Magnetic Resonance Imaging-Compatible, Large-Scale Array for Trans-Skull Ultrasound Surgery and Therapy. Journal of Ultrasound in Medicine, 2005, 24, 1117-1125.	0.8	79
13	A unified model for the speed of sound in cranial bone based on genetic algorithm optimization. Physics in Medicine and Biology, 2002, 47, 3925-3944.	1.6	72
14	Field characterization of therapeutic ultrasound phased arrays through forward and backward planar projection. Journal of the Acoustical Society of America, 2000, 108, 441-446.	0.5	67
15	Transcranial ultrasound focus reconstruction with phase and amplitude correction. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2005, 52, 1518-1522.	1.7	64
16	Passive Acoustic Mapping with the Angular Spectrum Method. IEEE Transactions on Medical Imaging, 2017, 36, 983-993.	5.4	64
17	Local frequency dependence in transcranial ultrasound transmission. Physics in Medicine and Biology, 2006, 51, 2293-2305.	1.6	61
18	Micro-receiver guided transcranial beam steering. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2002, 49, 447-453.	1.7	60

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19	Comparison of modelled and observedin vivotemperature elevations induced by focused ultrasound: implications for treatment planning. Physics in Medicine and Biology, 2001, 46, 1785-1798.	1.6	54
20	Time-reversal transcranial ultrasound beam focusing using a k-space method. Physics in Medicine and Biology, 2012, 57, 901-917.	1.6	51
21	Evaluation of a wave-vector-frequency-domain method for nonlinear wave propagation. Journal of the Acoustical Society of America, 2011, 129, 32-46.	0.5	39
22	Superresolution ultrasound imaging using back-projected reconstruction. Journal of the Acoustical Society of America, 2005, 118, 3953-3960.	0.5	37
23	Standing-Wave Suppression for Transcranial Ultrasound by Random Modulation. IEEE Transactions on Biomedical Engineering, 2010, 57, 203-205.	2.5	37
24	Transcranial Assessment and Visualization of Acoustic Cavitation: Modeling and Experimental Validation. IEEE Transactions on Medical Imaging, 2015, 34, 1270-1281.	5.4	35
25	A k-Space Method for Moderately Nonlinear Wave Propagation. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2012, 59, 1664-1673.	1.7	33
26	The role of internal reflection in transskull phase distortion. Ultrasonics, 2001, 39, 109-113.	2.1	31
27	A harmonic cancellation technique for an ultrasound transducer excited by a switched-mode power converter. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2008, 55, 359-367.	1.7	31
28	Forward planar projection through layered media. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2003, 50, 1689-1698.	1.7	27
29	A new ultrasound method for determining the acoustic phase shifts caused by the skull bone. Ultrasound in Medicine and Biology, 2005, 31, 771-780.	0.7	26
30	Accelerated focused ultrasound imaging. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2009, 56, 2612-2623.	1.7	23
31	Verification of the westervelt equation for focused transducers. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 1097-1101.	1.7	23
32	An Intraoperative Brain Shift Monitor Using Shear Mode Transcranial Ultrasound. Journal of Ultrasound in Medicine, 2009, 28, 191-203.	0.8	22
33	A Computer-Controlled Ultrasound Pulser-Receiver System for Transskull Fluid Detection using a Shear Wave Transmission Technique. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2007, 54, 1772-1783.	1.7	19
34	Acoustic standing wave suppression using randomized phase-shift-keying excitations. Journal of the Acoustical Society of America, 2009, 126, 1667-1670.	0.5	19
35	A wireless batteryless deep-seated implantable ultrasonic pulser-receiver powered by magnetic coupling. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2011, 58, 1211-1221.	1.7	19
36	Preliminary results using ultrasound transmission for image-guided thermal therapy. Ultrasound in Medicine and Biology, 2003, 29, 293-299.	0.7	16

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37	Spectral image reconstruction for transcranial ultrasound measurement. Physics in Medicine and Biology, 2005, 50, 5557-5572.	1.6	16
38	The Effects of Desiccation on Skull Bone Sound Speed in Porcine Models. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2007, 54, 1708-1710.	1.7	14
39	Forward projection of transient signals obtained from a fiber-optic pressure sensor. Journal of the Acoustical Society of America, 1998, 104, 1266-1273.	0.5	13
40	On the use of Gegenbauer reconstructions for shock wave propagation modeling. Journal of the Acoustical Society of America, 2011, 130, 1115-1124.	0.5	13
41	The feasibility of non-contact ultrasound for medical imaging. Physics in Medicine and Biology, 2013, 58, 6263-6278.	1.6	13
42	Feasibility of low-frequency directive sound source with high range resolution using pulse compression technique. Japanese Journal of Applied Physics, 2014, 53, 07KC03.	0.8	13
43	Ultrasound phase-contrast transmission imaging of localized thermal variation and the identification of fat/tissue boundaries. Physics in Medicine and Biology, 2005, 50, 1585-1600.	1.6	11
44	Automated sonographic evaluation of testicular perfusion. Physics in Medicine and Biology, 2006, 51, 3419-3432.	1.6	11
45	Ultrasound field measurement using a binary lens. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2015, 62, 350-359.	1.7	11
46	Contrast-enhanced, real-time volumetric ultrasound imaging of tissue perfusion: preliminary results in a rabbit model of testicular torsion. Physics in Medicine and Biology, 2011, 56, 2183-2197.	1.6	10
47	Parametric excitation of shear waves in soft solids. Acoustical Physics, 2009, 55, 567-574.	0.2	9
48	Temporal backward planar projection of acoustic transients. Journal of the Acoustical Society of America, 1998, 103, 1723-1726.	0.5	8
49	Ultrasound Phase Contrast Thermal Imaging with Reflex Transmission Imaging Methods in Tissue Phantoms. Ultrasound in Medicine and Biology, 2009, 35, 1995-2006.	0.7	8
50	Application of the split-step PadÃ© approach to nonlinear field predictions. Ultrasonics, 2013, 53, 432-438.	2.1	8
51	The feasibility of pulse compression by nonlinear effective bandwidth extension. Journal of the Acoustical Society of America, 2011, 130, 1810-1819.	0.5	7
52	Multi-planar Dynamic Contrast-Enhanced Ultrasound Assessment of Blood Flow in a Rabbit Model of Testicular Torsion. Ultrasound in Medicine and Biology, 2014, 40, 361-370.	0.7	7
53	Two-dimensional ultrasound detection with unfocused frequency-randomized signals. Journal of the Acoustical Society of America, 2007, 121, 636-647.	0.5	5
54	Two-Dimensional Localization with a Single Diffuse Ultrasound Field Excitation. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2007, 54, 2309-2317.	1.7	4

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55	Feasibility of ultrasound phase contrast for heating localization. Journal of the Acoustical Society of America, 2008, 123, 1773-1783.	0.5	4
56	Two-dimensional image reconstruction with spectrally-randomized ultrasound signals. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2013, 60, 2501-2510.	1.7	4
57	Linear and nonlinear ultrasound fields formed by planar sources with random pressure distributions. Acoustical Science and Technology, 2015, 36, 208-215.	0.3	4
58	Investigation of ultrasound phase shifts caused by the skull bone using low-frequency reflection data. , 0, , .		3
59	A harmonic cancellation technique for an ultrasound transducer excited by a switched-mode power converter. , 2008, , .		3
60	Nonlinear planar forward and backward projection. , 2008, , .		3
61	128 Element ultrasound array for transcranial imaging. , 2010, , .		3
62	A projection-based approach to diffraction tomography on curved boundaries. Inverse Problems, 2014, 30, 125010.	1.0	3
63	Toward transcranial ultrasound tomography: design of a 456-element low profile conformal array. Biomedical Physics and Engineering Express, 2019, 5, 025025.	0.6	3
64	Compressed parametric difference frequency sound with chirp signal. Proceedings of Meetings on Acoustics, 2013, , .	0.3	3
65	Local Frequency Dependence in Transcranial Ultrasound Transmission. AIP Conference Proceedings, 2006, , .	0.3	2
66	Longitudinal and Shear Mode Ultrasound Propagation in Human Skull Bone. AIP Conference Proceedings, 2006, , .	0.3	2
67	Errata for "A harmonic cancellation technique for an ultrasound transducer excited by a switched-mode power converter" [Feb 08 359-367]. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2008, 55, 738-738.	1.7	2
68	Standing wave suppression in transcranial ultrasound therapy using random-signal-modulation excitation. , 2008, , .		2
69	A nonlinear method for high-intensity focused ultrasound (HIFU) aberration reduction. , 2008, , .		2
70	A pre-treatment planning strategy for high-intensity focused ultrasound (HIFU) treatments. , 2008, , .		2
71	Spatial backward planar projection in absorbing media possessing an arbitrary dispersion relation. Acoustical Science and Technology, 2010, 31, 379-386.	0.3	2
72	A computerized tomography system for transcranial ultrasound imaging. Proceedings of Meetings on Acoustics, 2015, 22, .	0.3	2

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73	Accuracy of the resonance ultrasound method in determination of the acoustic phase shifts in plastic and bone. , 0, , .		1
74	TREATMENT PLANNING FOR MR-GUIDED FOCUSED ULTRASOUND SURGERY. , 2007, , .		1
75	Thermal imaging with ultrasound reflex transmission methods. , 2008, , .		1
76	Parametric Excitation of Shear Waves in Soft Solids. AIP Conference Proceedings, 2008, , .	0.3	1
77	Standing wave suppression for transcranial ultrasound by random-modulation. , 2009, , .		1
78	On the use of Gegenbauer reconstructions for shock wave propagation modeling. , 2010, , .		1
79	Comparison between diffuse infrared and acoustic transmission over the human skull.. Proceedings of Meetings on Acoustics, 2015, 22, .	0.3	1
80	Investigation of the correlation between diffuse infrared and ultrasound for transcranial ultrasound. Biomedical Physics and Engineering Express, 2016, 2, 035016.	0.6	1
81	Transcranial ultrasound focus reconstruction with phase and amplitude correction. , 0, , .		0
82	Nonlinear Restoring Behavior of Therapeutic Ultrasound Transducers. AIP Conference Proceedings, 2006, , .	0.3	0
83	Ultrasound Imaging Of Patients With Testicular Torsion. AIP Conference Proceedings, 2007, , .	0.3	0
84	P3C-10 Towards a Reflex Transmission Method For Ultrasound Thermometry. Proceedings IEEE Ultrasonics Symposium, 2007, , .	0.0	0
85	An intraoperative brain-shift monitor using shear-mode transcranial ultrasound: Preliminary results. , 2008, , .		0
86	Superresolution in ultrasound imaging. , 2009, , .		0
87	Contrast-enhanced, real-time volumetric imaging of tissue perfusion. , 2010, , .		0
88	A wireless batteryless deep-seated implantable ultrasonic pulser-receiver powered by magnetic coupling. , 2010, , .		0
89	Effective bandwidth extension by combined harmonics. , 2012, , .		0
90	Measurement of thin films using very long acoustic wavelengths. Journal of Applied Physics, 2013, 114, 234904.	1.1	0

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91	A transcranial device and method for detecting cerebellar brain motion. , 2014, , .		0
92	Head motion tracking for functional MRI using an air ultrasound array. , 2014, , .		0
93	Treatment Planning. , 2007, , 69-79.		0