Mickael Tanter

List of Publications by Citations

450 papers	23,807 citations	79 h-index	144 g-index
546 ext. papers	30,026 ext. citations	5.5 avg, IF	7.11 L-index

#	Paper	IF	Citations
450	Supersonic shear imaging: a new technique for soft tissue elasticity mapping. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2004**, 51, 396-409	3.2	1610
449	Coherent plane-wave compounding for very high frame rate ultrasonography and transient elastography. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2009**, 56, 489-506	3.2	873
448	Quantitative assessment of breast lesion viscoelasticity: initial clinical results using supersonic shear imaging. *Ultrasound in Medicine and Biology*, **2008**, 34, 1373-86	3.5	535
447	Ultrasound elastography: principles and techniques. *Diagnostic and Interventional Imaging*, **2013**, 94, 487-95	5.4	491
446	Ultrafast ultrasound localization microscopy for deep super-resolution vascular imaging. *Nature*, **2015**, 527, 499-502	50.4	482
445	Time-reversed acoustics. *Reports on Progress in Physics*, **2000**, 63, 1933-1995	14.4	461
444	Viscoelastic and anisotropic mechanical properties of in vivo muscle tissue assessed by supersonic shear imaging. *Ultrasound in Medicine and Biology*, **2010**, 36, 789-801	3.5	453
443	Breast lesions: quantitative elastography with supersonic shear imaging--preliminary results. *Radiology*, **2010**, 256, 297-303	20.5	404
442	Viscoelastic shear properties of in vivo breast lesions measured by MR elastography. *Magnetic Resonance Imaging*, **2005**, 23, 159-65	3.3	363
441	Spatiotemporal Clutter Filtering of Ultrafast Ultrasound Data Highly Increases Doppler and fUltrasound Sensitivity. *IEEE Transactions on Medical Imaging*, **2015**, 34, 2271-85	11.7	357
440	Functional ultrasound imaging of the brain. *Nature Methods*, **2011**, 8, 662-4	21.6	336
439	Experimental demonstration of noninvasive transskull adaptive focusing based on prior computed tomography scans. *Journal of the Acoustical Society of America*, **2003**, 113, 84-93	2.2	333
438	Ultrafast imaging in biomedical ultrasound. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2014**, 61, 102-19	3.2	325
437	Noninvasive in vivo liver fibrosis evaluation using supersonic shear imaging: a clinical study on 113 hepatitis C virus patients. *Ultrasound in Medicine and Biology*, **2011**, 37, 1361-73	3.5	318
436	Quantitative viscoelasticity mapping of human liver using supersonic shear imaging: preliminary in vivo feasibility study. *Ultrasound in Medicine and Biology*, **2009**, 35, 219-29	3.5	304
435	Shear elasticity probe for soft tissues with 1-D transient elastography. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2002**, 49, 436-46	3.2	299
434	Ultrafast Imaging in Biomedical Ultrasound. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2014**, 61, 102-119	3.2	296

433	Shear modulus imaging with 2-D transient elastography. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2002**, 49, 426-35	3.2	285
432	Shear wave spectroscopy for in vivo quantification of human soft tissues visco-elasticity. *IEEE Transactions on Medical Imaging*, **2009**, 28, 313-22	11.7	283
431	Imaging anisotropic and viscous properties of breast tissue by magnetic resonance-elastography. *Magnetic Resonance in Medicine*, **2005**, 53, 372-87	4.4	281
430	Ultrafast compound imaging for 2-D motion vector estimation: application to transient elastography. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2002**, 49, 1363-74	3.2	272
429	Ultrafast compound Doppler imaging: providing full blood flow characterization. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2011**, 58, 134-47	3.2	267
428	Recovering the Green's function from field-field correlations in an open scattering medium. *Journal of the Acoustical Society of America*, **2003**, 113, 2973-6	2.2	266
427	MR elastography of breast lesions: understanding the solid/liquid duality can improve the specificity of contrast-enhanced MR mammography. *Magnetic Resonance in Medicine*, **2007**, 58, 1135-44	4.4	244
426	In vivo breast tumor detection using transient elastography. *Ultrasound in Medicine and Biology*, **2003**, 29, 1387-96	3.5	238
425	Low-intensity focused ultrasound modulates monkey visuomotor behavior. *Current Biology*, **2013**, 23, 2430-3	6.3	232
424	Time reversal and the inverse filter. *Journal of the Acoustical Society of America*, **2000**, 108, 223-34	2.2	221
423	Quantitative assessment of arterial wall biomechanical properties using shear wave imaging. *Ultrasound in Medicine and Biology*, **2010**, 36, 1662-76	3.5	216
422	Mechanical induction of the tumorigenic □catenin pathway by tumour growth pressure. *Nature*, **2015**, 523, 92-5	50.4	201
421	3D ultrafast ultrasound imaging in vivo. *Physics in Medicine and Biology*, **2014**, 59, L1-L13	3.8	181
420	Focusing and steering through absorbing and aberrating layers: application to ultrasonic propagation through the skull. *Journal of the Acoustical Society of America*, **1998**, 103, 2403-10	2.2	176
419	Elastography for Muscle Biomechanics: Toward the Estimation of Individual Muscle Force. *Exercise and Sport Sciences Reviews*, **2015**, 43, 125-33	6.7	167
418	The role of viscosity in the impulse diffraction field of elastic waves induced by the acoustic radiation force. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2004**, 51, 1523-36	3.2	166
417	In Vivo Quantitative Mapping of Myocardial Stiffening and Transmural Anisotropy During the Cardiac Cycle. *IEEE Transactions on Medical Imaging*, **2011**, 30, 295-305	11.7	165
416	High-resolution quantitative imaging of cornea elasticity using supersonic shear imaging. *IEEE Transactions on Medical Imaging*, **2009**, 28, 1881-93	11.7	165

415	Attenuation, scattering, and absorption of ultrasound in the skull bone. *Medical Physics*, **2012**, 39, 299-307	4.4	165
414	Correlation of random wavefields: An interdisciplinary review. *Geophysics*, **2006**, 71, SI11-SI21	3.1	165
413	Time-resolved pulsed elastography with ultrafast ultrasonic imaging. *Ultrasonic Imaging*, **1999**, 21, 259-72	2.9	164
412	Supersonic shear wave elastography of in´vivo pig kidney: influence of blood pressure, urinary pressure and tissue anisotropy. *Ultrasound in Medicine and Biology*, **2012**, 38, 1559-67	3.5	162
411	Real-time visualization of muscle stiffness distribution with ultrasound shear wave imaging during muscle contraction. *Muscle and Nerve*, **2010**, 42, 438-41	3.4	156
410	High power transcranial beam steering for ultrasonic brain therapy. *Physics in Medicine and Biology*, **2003**, 48, 2577-89	3.8	153
409	Functional ultrasound imaging of the brain: theory and basic principles. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2013**, 60, 492-506	3.2	146
408	Taking advantage of multiple scattering to communicate with time-reversal antennas. *Physical Review Letters*, **2003**, 90, 014301	7.4	146
407	Optimal focusing by spatio-temporal inverse filter. I. Basic principles. *Journal of the Acoustical Society of America*, **2001**, 110, 37-47	2.2	146
406	Time-reversal acoustics in biomedical engineering. *Annual Review of Biomedical Engineering*, **2003**, 5, 465-97	12	145
405	High-contrast ultrafast imaging of the heart. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2014**, 61, 288-301	3.2	137
404	Investigating liver stiffness and viscosity for fibrosis, steatosis and activity staging using shear wave elastography. *Journal of Hepatology*, **2015**, 62, 317-24	13.4	134
403	Non-invasive transcranial ultrasound therapy based on a 3D CT scan: protocol validation and in vitro results. *Physics in Medicine and Biology*, **2009**, 54, 2597-613	3.8	134
402	Dynamic study of blood-brain barrier closure after its disruption using ultrasound: a quantitative analysis. *Journal of Cerebral Blood Flow and Metabolism*, **2012**, 32, 1948-58	7.3	126
401	On the effects of reflected waves in transient shear wave elastography. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2011**, 58, 2032-5	3.2	125
400	Influence of the pressure field distribution in transcranial ultrasonic neurostimulation. *Medical Physics*, **2013**, 40, 082902	4.4	123
399	In vivo evaluation of the elastic anisotropy of the human Achilles tendon using shear wave dispersion analysis. *Physics in Medicine and Biology*, **2014**, 59, 505-23	3.8	122
398	Acoustoelasticity in soft solids: assessment of the nonlinear shear modulus with the acoustic radiation force. *Journal of the Acoustical Society of America*, **2007**, 122, 3211-9	2.2	122

397	Electrical Impedance Tomography by Elastic Deformation. *SIAM Journal on Applied Mathematics*, **2008**, 68, 1557-1573	1.8	115
396	Viscoelasticity in Achilles tendonopathy: quantitative assessment by using real-time shear-wave elastography. *Radiology*, **2015**, 274, 821-9	20.5	107
395	Mapping myocardial fiber orientation using echocardiography-based shear wave imaging. *IEEE Transactions on Medical Imaging*, **2012**, 31, 554-62	11.7	100
394	Assessment of elastic parameters of human skin using dynamic elastography. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2004**, 51, 980-9	3.2	99
393	In vivo transcranial brain surgery with an ultrasonic time reversal mirror. *Journal of Neurosurgery*, **2007**, 106, 1061-6	3.2	98
392	3-D real-time motion correction in high-intensity focused ultrasound therapy. *Ultrasound in Medicine and Biology*, **2004**, 30, 1239-49	3.5	98
391	The EFSUMB Guidelines and Recommendations for the Clinical Practice of Elastography in Non-Hepatic Applications: Update 2018. *Ultraschall in Der Medizin*, **2019**, 40, 425-453	3.8	97
390	On the elasticity of transverse isotropic soft tissues (L). *Journal of the Acoustical Society of America*, **2011**, 129, 2757-60	2.2	97
389	Simulation of intracranial acoustic fields in clinical trials of sonothrombolysis. *Ultrasound in Medicine and Biology*, **2009**, 35, 1148-58	3.5	97
388	Ultrasound contrast plane wave imaging. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2012**, 59, 2676-83	3.2	97
387	Temperature dependence of the shear modulus of soft tissues assessed by ultrasound. *Physics in Medicine and Biology*, **2010**, 55, 1701-18	3.8	95
386	Monitoring thermally-induced lesions with supersonic shear imaging. *Ultrasonic Imaging*, **2004**, 26, 71-84	1.9	95
385	Functional ultrasound imaging of intrinsic connectivity in the living rat brain with high spatiotemporal resolution. *Nature Communications*, **2014**, 5, 5023	17.4	94
384	Sono-activated ultrasound localization microscopy. *Applied Physics Letters*, **2013**, 103, 174107	3.4	93
383	Adaptive Spatiotemporal SVD Clutter Filtering for Ultrafast Doppler Imaging Using Similarity of Spatial Singular Vectors. *IEEE Transactions on Medical Imaging*, **2018**, 37, 1574-1586	11.7	92
382	Real-time assessment of myocardial contractility using shear wave imaging. *Journal of the American College of Cardiology*, **2011**, 58, 65-72	15.1	92
381	Quantitative elastography of renal transplants using supersonic shear imaging: a pilot study. *European Radiology*, **2012**, 22, 2138-46	8	90
380	Light controls cerebral blood flow in naive animals. *Nature Communications*, **2017**, 8, 14191	17.4	88

379	Transcostal high-intensity-focused ultrasound: ex vivo adaptive focusing feasibility study. *Physics in Medicine and Biology*, **2008**, 53, 2937-51	3.8	85
378	Ultrasound Localization Microscopy and Super-Resolution: A State of the Art. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2018**, 65, 1304-1320	3.2	85
377	Feasibility and Diagnostic Accuracy of Supersonic Shear-Wave Elastography for the Assessment of Liver Stiffness and Liver Fibrosis in Children: A Pilot Study of 96 Patients. *Radiology*, **2016**, 278, 554-62	20.5	83
376	Super-resolution Ultrasound Imaging. *Ultrasound in Medicine and Biology*, **2020**, 46, 865-891	3.5	83
375	Combined passive detection and ultrafast active imaging of cavitation events induced by short pulses of high-intensity ultrasound. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2011**, 58, 517-32	3.2	83
374	EEG and functional ultrasound imaging in mobile rats. *Nature Methods*, **2015**, 12, 831-4	21.6	80
373	MR-guided adaptive focusing of therapeutic ultrasound beams in the human head. *Medical Physics*, **2012**, 39, 1141-9	4.4	80
372	Observation of shock transverse waves in elastic media. *Physical Review Letters*, **2003**, 91, 164301	7.4	79
371	Functional ultrasound imaging of brain activity in human newborns. *Science Translational Medicine*, **2017**, 9,	17.5	78
370	Initial experience with a new ultrasound imaging technique to measure tissue viscoelasticity. *Breast Cancer Research*, **2008**, 10,	8.3	78
369	Optimal focusing by spatio-temporal inverse filter. II. Experiments. Application to focusing through absorbing and reverberating media. *Journal of the Acoustical Society of America*, **2001**, 110, 48-58	2.2	78
368	Compensating for bone interfaces and respiratory motion in high-intensity focused ultrasound. *International Journal of Hyperthermia*, **2007**, 23, 141-51	3.7	77
367	Functional ultrasound neuroimaging: a review of the preclinical and clinical state of the art. *Current Opinion in Neurobiology*, **2018**, 50, 128-135	7.6	76
366	Transcranial ultrasonic stimulation modulates single-neuron discharge in macaques performing an antisaccade task. *Brain Stimulation*, **2017**, 10, 1024-1031	5.1	76
365	In Vivo Measurement of Brain Tumor Elasticity Using Intraoperative Shear Wave Elastography. *Ultraschall in Der Medizin*, **2016**, 37, 584-590	3.8	74
364	4D microvascular imaging based on ultrafast Doppler tomography. *NeuroImage*, **2016**, 127, 472-483	7.9	70
363	Ultrafast imaging of ultrasound contrast agents. *Ultrasound in Medicine and Biology*, **2009**, 35, 1908-16	3.5	70
362	3-D ultrafast Doppler imaging applied to the noninvasive mapping of blood vessels in vivo. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2015**, 62, 1467-72	3.2	69

361	Sonic boom in soft materials: The elastic Cerenkov effect. *Applied Physics Letters*, **2004**, 84, 2202-2204	3.4	69
360	Sound focusing in rooms: the time-reversal approach. *Journal of the Acoustical Society of America*, **2003**, 113, 1533-43	2.2	67
359	Reliable protocol for shear wave elastography of lower limb muscles at rest and during passive stretching. *Ultrasound in Medicine and Biology*, **2015**, 41, 2284-91	3.5	66
358	Functional ultrasound imaging reveals different odor-evoked patterns of vascular activity in the main olfactory bulb and the anterior piriform cortex. *NeuroImage*, **2014**, 95, 176-84	7.9	65
357	Transcranial functional ultrasound imaging of the brain using microbubble-enhanced ultrasensitive Doppler. *NeuroImage*, **2016**, 124, 752-761	7.9	64
356	Multiwave imaging and super resolution. *Physics Today*, **2010**, 63, 28-33	0.9	64
355	4D functional ultrasound imaging of whole-brain activity in rodents. *Nature Methods*, **2019**, 16, 994-997	21.6	63
354	MR-guided transcranial brain HIFU in small animal models. *Physics in Medicine and Biology*, **2010**, 55, 365-88	3.8	62
353	In vivo bubble nucleation probability in sheep brain tissue. *Physics in Medicine and Biology*, **2011**, 56, 7001-15	3.8	62
352	Robust sound speed estimation for ultrasound-based hepatic steatosis assessment. *Physics in Medicine and Biology*, **2017**, 62, 3582-3598	3.8	61
351	Facial nerve palsy: evaluation by contrast-enhanced MR imaging. *Clinical Radiology*, **2001**, 56, 926-32	2.9	61
350	Assessment of the mechanical properties of the musculoskeletal system using 2-D and 3-D very high frame rate ultrasound. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2008**, 55, 2177-90	3.2	59
349	Resolution limits of ultrafast ultrasound localization microscopy. *Physics in Medicine and Biology*, **2015**, 60, 8723-40	3.8	57
348	Assessment of the Cervix in Pregnant Women Using Shear Wave Elastography: A Feasibility Study. *Ultrasound in Medicine and Biology*, **2015**, 41, 2789-97	3.5	57
347	4D ultrafast ultrasound flow imaging: in vivo quantification of arterial volumetric flow rate in a single heartbeat. *Physics in Medicine and Biology*, **2016**, 61, L48-L61	3.8	56
346	Shear wave elastography of tumour growth in a human breast cancer model with pathological correlation. *European Radiology*, **2013**, 23, 2079-86	8	55
345	Targeting accuracy of transcranial magnetic resonance-guided high-intensity focused ultrasound brain therapy: a fresh cadaver model. *Journal of Neurosurgery*, **2013**, 118, 1046-52	3.2	55
344	4-D ultrafast shear-wave imaging. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2015**, 62, 1059-65	3.2	54

343	Ultrasound elastic tensor imaging: comparison with MR diffusion tensor imaging in the myocardium. *Physics in Medicine and Biology*, **2012**, 57, 5075-95	3.8	54
342	Real time inverse filter focusing through iterative time reversal. *Journal of the Acoustical Society of America*, **2004**, 115, 768-75	2.2	54
341	Ultrafast Doppler imaging of blood flow dynamics in the myocardium. *IEEE Transactions on Medical Imaging*, **2012**, 31, 1661-8	11.7	53
340	The variance of quantitative estimates in shear wave imaging: theory and experiments. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2012**, 59, 2390-410	3.2	52
339	Effects of nonlinear ultrasound propagation on high intensity brain therapy. *Medical Physics*, **2011**, 38, 1207-16	4.4	52
338	Monitoring of thermal therapy based on shear modulus changes: II. Shear wave imaging of thermal lesions. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2011**, 58, 1603-11	3.2	51
337	Assessment of viscous and elastic properties of sub-wavelength layered soft tissues using shear wave spectroscopy: theoretical framework and in vitro experimental validation. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2011**, 58, 2305-15	3.2	50
336	Transcranial ultrasonic therapy based on time reversal of acoustically induced cavitation bubble signature. *IEEE Transactions on Biomedical Engineering*, **2010**, 57, 134-44	5	50
335	Myocardial Stiffness Evaluation Using Noninvasive Shear Wave Imaging in Healthy and Hypertrophic Cardiomyopathic Adults. *JACC: Cardiovascular Imaging*, **2019**, 12, 1135-1145	8.4	50
334	Functional ultrasound imaging of the brain reveals propagation of task-related brain activity in behaving primates. *Nature Communications*, **2019**, 10, 1400	17.4	49
333	Microvascular flow dictates the compromise between spatial resolution and acquisition time in Ultrasound Localization Microscopy. *Scientific Reports*, **2019**, 9, 2456	4.9	49
332	Ultrasound internal tattooing. *Medical Physics*, **2011**, 38, 1116-23	4.4	49
331	Imaging of perfusion, angiogenesis, and tissue elasticity after stroke. *Journal of Cerebral Blood Flow and Metabolism*, **2012**, 32, 1496-507	7.3	49
330	Transcranial Functional Ultrasound Imaging in Freely Moving Awake Mice and Anesthetized Young Rats without Contrast Agent. *Ultrasound in Medicine and Biology*, **2017**, 43, 1679-1689	3.5	48
329	In vivo quantification of the shear modulus of the human Achilles tendon during passive loading using shear wave dispersion analysis. *Physics in Medicine and Biology*, **2016**, 61, 2485-96	3.8	48
328	Ultrafast Doppler reveals the mapping of cerebral vascular resistivity in neonates. *Journal of Cerebral Blood Flow and Metabolism*, **2014**, 34, 1009-17	7.3	48
327	Optimal transcostal high-intensity focused ultrasound with combined real-time 3D movement tracking and correction. *Physics in Medicine and Biology*, **2011**, 56, 7061-80	3.8	48
326	Monitoring of cornea elastic properties changes during UV-A/riboflavin-induced corneal collagen cross-linking using supersonic shear wave imaging: a pilot study **2012**, 53, 5948-54		48

325	Subwavelength motion-correction for ultrafast ultrasound localization microscopy. *Ultrasonics*, **2017**, 77, 17-21	3.5	47
324	Multiplane wave imaging increases signal-to-noise ratio in ultrafast ultrasound imaging. *Physics in Medicine and Biology*, **2015**, 60, 8549-66	3.8	47
323	Building three-dimensional images using a time-reversal chaotic cavity. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2005**, 52, 1489-97	3.2	47
322	In vivo mapping of brain elasticity in small animals using shear wave imaging. *IEEE Transactions on Medical Imaging*, **2011**, 30, 550-8	11.7	46
321	Ultrasound-based imaging methods of the kidney-recent developments. *Kidney International*, **2016**, 90, 1199-1210	9.9	46
320	Microbubble ultrasound super-localization imaging (MUSLI) **2011**,		45
319	Intraoperative Functional Ultrasound Imaging of Human Brain Activity. *Scientific Reports*, **2017**, 7, 7304	4.9	44
318	Anisotropic polyvinyl alcohol hydrogel phantom for shear wave elastography in fibrous biological soft tissue: a multimodality characterization. *Physics in Medicine and Biology*, **2014**, 59, 6923-40	3.8	44
317	Detection of intrarenal microstructural changes with supersonic shear wave elastography in rats. *European Radiology*, **2012**, 22, 243-50	8	44
316	Monitoring of thermal therapy based on shear modulus changes: I. shear wave thermometry. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2011**, 58, 369-78	3.2	44
315	Potential impact of thermal effects during ultrasonic neurostimulation: retrospective numerical estimation of temperature elevation in seven rodent setups. *Physics in Medicine and Biology*, **2018**, 63, 025003	3.8	43
314	Supersonic shear wave elastography for the in vivo evaluation of transepithelial corneal collagen cross-linking **2014**, 55, 1976-84		43
313	The Aharonov-Bohm Effect Revisited by an Acoustic Time-Reversal Mirror. *Physical Review Letters*, **1997**, 79, 3170-3173	7.4	43
312	3D-printed adaptive acoustic lens as a disruptive technology for transcranial ultrasound therapy using single-element transducers. *Physics in Medicine and Biology*, **2018**, 63, 025026	3.8	43
311	3D functional ultrasound imaging of the cerebral visual system in rodents. *NeuroImage*, **2017**, 149, 267-274	7.9	42
310	From supersonic shear wave imaging to full-field optical coherence shear wave elastography. *Journal of Biomedical Optics*, **2013**, 18, 121514	3.5	42
309	Ex vivo optimisation of a heterogeneous speed of sound model of the human skull for non-invasive transcranial focused ultrasound at 1 MHz. *International Journal of Hyperthermia*, **2017**, 33, 635-645	3.7	41
308	In vivo evidence of porcine cornea anisotropy using supersonic shear wave imaging **2014**, 55, 7545-52		41

307	Revisiting iterative time reversal processing: application to detection of multiple targets. *Journal of the Acoustical Society of America*, **2004**, 115, 776-84	2.2	41
306	Transcriptomic regulations in oligodendroglial and microglial cells related to brain damage following fetal growth restriction. *Glia*, **2016**, 64, 2306-2320	9	41
305	Local hippocampal fast gamma rhythms precede brain-wide hyperemic patterns during spontaneous rodent REM sleep. *Nature Communications*, **2018**, 9, 5364	17.4	41
304	Ultrafast Harmonic Coherent Compound (UHCC) Imaging for High Frame Rate Echocardiography and Shear-Wave Elastography. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control* , **2016**, 63, 420-31	3.2	40
303	MR-guided adaptive focusing of ultrasound. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2010**, 57, 1734-7	3.2	40
302	â□Ultrasonic starsâ□for time-reversal focusing using induced cavitation bubbles. *Applied Physics Letters*, **2006**, 88, 034102	3.4	40
301	Ultrafast imaging of in vivo muscle contraction using ultrasound. *Applied Physics Letters*, **2006**, 89, 184107	3.4	40
300	Breaking of time reversal invariance in nonlinear acoustics. *Physical Review E*, **2001**, 64, 016602	2.4	40
299	Real time shear waves elastography monitoring of thermal ablation: in´vivo evaluation in pig livers. *Journal of Surgical Research*, **2014**, 188, 37-43	2.5	39
298	Adaptive focusing for transcranial ultrasound imaging using dual arrays. *Journal of the Acoustical Society of America*, **2006**, 120, 2737-45	2.2	39
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296	The link between tissue elasticity and thermal dose in vivo. *Physics in Medicine and Biology*, **2011**, 56, 7755-65	3.8	37
295	Ultrafast imaging of the arterial pulse wave. *Irbm*, **2011**, 32, 106-108	4.8	37
294	Shear Wave Imaging of Passive Diastolic´Myocardial Stiffness: Stunned Versus Infarcted Myocardium. *JACC: Cardiovascular Imaging*, **2016**, 9, 1023-1030	8.4	37
293	Transcranial ultrafast ultrasound localization microscopy of brain vasculature in patients. *Nature Biomedical Engineering*, **2021**, 5, 219-228	19	35
292	Oxytocin receptor agonist reduces perinatal brain damage by targeting microglia. *Glia*, **2019**, 67, 345-359	9	34
291	A 200-1380-kHz Quadrifrequency Focused Ultrasound Transducer for Neurostimulation in Rodents and Primates: Transcranial In Vitro Calibration and Numerical Study of the Influence of Skull Cavity. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2017**, 64, 717-724	3.2	33
290	Contrast enhanced ultrasound by real-time spatiotemporal filtering of ultrafast images. *Physics in Medicine and Biology*, **2017**, 62, 31-42	3.8	33

289	Ultrafast 3D Ultrasound Localization Microscopy Using a 32 □32 Matrix Array. *IEEE Transactions on Medical Imaging*, **2019**, 38, 2005-2015	11.7	33
288	Carotid stiffness change over the cardiac cycle by ultrafast ultrasound imaging in healthy volunteers and vascular Ehlers-Danlos syndrome. *Journal of Hypertension*, **2015**, 33, 1890-6; discussion 1896	1.9	33
287	Transient optoelastography in optically diffusive media. *Applied Physics Letters*, **2007**, 90, 174111	3.4	33
286	Time reversal kaleidoscope: A smart transducer for three-dimensional ultrasonic imaging. *Applied Physics Letters*, **2004**, 84, 3879-3881	3.4	31
285	In Vivo Quantification of the Nonlinear Shear Modulus in Breast Lesions: Feasibility Study. *IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control*, **2016**, 63, 101-9	3.2	30
284	Non-invasive biomechanical characterization of intervertebral discs by shear wave ultrasound elastography: a feasibility study. *European Radiology*, **2014**, 24, 3210-6	8	30
283	Simultaneous positron emission tomography and ultrafast ultrasound for hybrid molecular, anatomical and functional imaging. *Nature Biomedical Engineering*, **2018**, 2, 85-94	19	29
282	Multi-scale mapping along the auditory hierarchy using high-resolution functional UltraSound in the awake ferret. *ELife*, **2018**, 7,	8.9	29
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280	A diffraction correction for storage and loss moduli imaging using radiation force based elastography. *Physics in Medicine and Biology*, **2017**, 62, 91-106	3.8	28
279	Hypothermic Total Liquid Ventilation Is Highly Protective Through Cerebral Hemodynamic Preservation and Sepsis-Like Mitigation After Asphyxial Cardiac Arrest. *Critical Care Medicine*, **2015**, 43, e420-30	1.4	28
278	Self-defocusing in ultrasonic hyperthermia: Experiment and simulation. *Applied Physics Letters*, **1999**, 74, 3062-3064	3.4	27
277	Transfer functions linking neural calcium to single voxel functional ultrasound signal. *Nature Communications*, **2020**, 11, 2954	17.4	26
276	Numerical prediction of frequency dependent 3D maps of mechanical index thresholds in ultrasonic brain therapy. *Medical Physics*, **2012**, 39, 455-67	4.4	26
275	Functional imaging evidence for task-induced deactivation and disconnection of a major default mode network hub in the mouse brain. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 15270-15280	11.5	25
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273	Time reversal of speckle noise. *Physical Review Letters*, **2011**, 106, 054301	7.4	25
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271	Non-invasive ultrasonic surgery of the brain in non-human primates. *Journal of the Acoustical Society of America*, **2013**, 134, 1632-9	2.2	24
270	Testicular Shear Wave Elastography in Normal and Infertile Men: A Prospective Study on 601 Patients. *Ultrasound in Medicine and Biology*, **2017**, 43, 782-789	3.5	23
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