

Helmut Ermert

List of Publications by Citations

Source: <https://exaly.com/author-pdf/9551908/helmut-ermert-publications-by-citations.pdf>

Version: 2024-04-27

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

134
papers

2,880
citations

29
h-index

50
g-index

160
ext. papers

3,302
ext. citations

2.8
avg, IF

4.61
L-index

#	Paper	IF	Citations
134	A time-efficient and accurate strain estimation concept for ultrasonic elastography using iterative phase zero estimation. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 1999 , 46, 1057-67	3.2	216
133	Initial experiences with real-time elastography guided biopsies of the prostate. <i>Journal of Urology</i> , 2005 , 174, 115-7	2.5	205
132	Freehand ultrasound elastography of breast lesions: clinical results. <i>Ultrasound in Medicine and Biology</i> , 2001 , 27, 1461-9	3.5	160
131	A 100-MHz ultrasound imaging system for dermatologic and ophthalmologic diagnostics. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 1996 , 43, 545-552	3.2	160
130	. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 1994 , 41, 655-659	3.2	114
129	. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 1994 , 41, 333-339	3.2	95
128	Sonography of the skin at 100 MHz enables in vivo visualization of stratum corneum and viable epidermis in palmar skin and psoriatic plaques. <i>Journal of Investigative Dermatology</i> , 1999 , 113, 821-9	4.3	81
127	New real-time strain imaging concepts using diagnostic ultrasound. <i>Physics in Medicine and Biology</i> , 2000 , 45, 1423-35	3.8	69
126	A new system for the acquisition of ultrasonic multicompression strain images of the human prostate in vivo. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 1999 , 46, 1147-54	3.2	69
125	An ultrasound research interface for a clinical system. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2007 , 54, 198-210	3.2	66
124	Ultrasonic multifeature tissue characterization for prostate diagnostics. <i>Ultrasound in Medicine and Biology</i> , 2003 , 29, 1137-49	3.5	62
123	Contrast agent specific imaging modes for the ultrasonic assessment of parenchymal cerebral echo contrast enhancement. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2000 , 20, 1709-16	7.3	60
122	Ultimate signal-to-noise-ratio of surface and body antennas for magnetic resonance imaging. <i>IEEE Transactions on Antennas and Propagation</i> , 2000 , 48, 418-428	4.9	58
121	Tissue-characterization of the prostate using radio frequency ultrasonic signals. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 1999 , 46, 126-38	3.2	57
120	Development and evaluation of a high-frequency ultrasound-based system for in vivo strain imaging of the skin. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2005 , 52, 375-85	3.2	55
119	Comparison of high frequency ultrasound and optical coherence tomography as modalities for high resolution and non invasive skin imaging. <i>Biomedizinische Technik</i> , 2003 , 48, 116-21	1.3	52
118	Schlieren visualization of ultrasonic wave fields with high spatial resolution. <i>Ultrasonics</i> , 2006 , 44 Suppl 1, e1561-6	3.5	51

117	Feasibility of contrast-enhanced sonography during resection of cerebral tumours: initial results of a prospective study. <i>Ultrasound in Medicine and Biology</i> , 2007 , 33, 571-5	3.5	50
116	Contrast burst depletion imaging (CODIM): a new imaging procedure and analysis method for semiquantitative ultrasonic perfusion imaging. <i>Stroke</i> , 2003 , 34, 77-83	6.7	50
115	Segmentation of 3D intravascular ultrasonic images based on a random field model. <i>Ultrasound in Medicine and Biology</i> , 2000 , 26, 297-306	3.5	48
114	Comparison between echo contrast agent-specific imaging modes and perfusion-weighted magnetic resonance imaging for the assessment of brain perfusion. <i>Stroke</i> , 2002 , 33, 2433-7	6.7	47
113	Parameters of cerebral perfusion in phase-inversion harmonic imaging (PIHI) ultrasound examinations. <i>Ultrasound in Medicine and Biology</i> , 2003 , 29, 1379-85	3.5	45
112	Ultrasound elastography for the age determination of venous thrombi. Evaluation in an animal model of venous thrombosis. <i>Thrombosis and Haemostasis</i> , 2005 , 93, 368-74	7	42
111	Axial strain imaging using a local estimation of the scaling factor from RF ultrasound signals. <i>Ultrasonic Imaging</i> , 2000 , 22, 95-107	1.9	42
110	Guiding and radiation characteristics of planar waveguides. <i>IEE Journal on Microwaves, Optics and Acoustics</i> , 1979 , 3, 59		37
109	Preoperative ultrasonic assessment of thin melanocytic skin lesions using a 100-MHz ultrasound transducer: a comparative study. <i>Dermatologic Surgery</i> , 2007 , 33, 818-24	1.7	36
108	Vibrography during tumor neurosurgery. <i>Journal of Ultrasound in Medicine</i> , 2005 , 24, 985-92	2.9	35
107	In vivo ultrasound biomicroscopy of skin: spectral system characteristics and inverse filtering optimization. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2007 , 54, 1551-9	3.2	34
106	The optimum bandwidth of chirp signals in ultrasonic applications. <i>Ultrasonics</i> , 1993 , 31, 417-420	3.5	33
105	An ultrasound research interface for a clinical system. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2006 , 53, 1759-71	3.2	29
104	Ultrasonic strain imaging and reconstructive elastography for biological tissue. <i>Ultrasonics</i> , 2006 , 44 Suppl 1, e199-202	3.5	29
103	Limited-angle spatial compound imaging of skin with high-frequency ultrasound (20 MHz). <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2008 , 55, 1975-83	3.2	25
102	A high-frequency ultrasound imaging system combining limited-angle spatial compounding and model-based synthetic aperture focusing. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2011 , 58, 1355-65	3.2	24
101	Investigation of the influence of blood flow rate on large vessel cooling in hepatic radiofrequency ablation. <i>Biomedizinische Technik</i> , 2006 , 51, 337-46	1.3	22
100	Lithotripsy in the common bile duct using ultrasound. Preliminary in vitro experiments. <i>Endoscopy</i> , 1984 , 16, 226-8	3.4	21

99	Electrorheological tactel elements. <i>Mechatronics</i> , 2005 , 15, 883-897	3	20
98	System for real-time elastography. <i>Electronics Letters</i> , 1999 , 35, 941	1.1	20
97	A tutorial on the use of ROC analysis for computer-aided diagnostic systems. <i>Ultrasonic Imaging</i> , 2005 , 27, 181-98	1.9	19
96	Ultrasonic assessment of brain perfusion. <i>Stroke</i> , 2000 , 31, 1460-2	6.7	19
95	Geometrical optimization of a phased array coil for high-resolution MR imaging of the carotid arteries. <i>Magnetic Resonance in Medicine</i> , 2003 , 50, 439-43	4.4	18
94	Palpation imaging using a haptic system for virtual reality applications in medicine. <i>Studies in Health Technology and Informatics</i> , 2004 , 98, 147-53	0.5	17
93	Ultrasound Computerized Tomography Using Transmission and Reflection Mode: Application to Medical Diagnosis. <i>Acoustical Imaging</i> , 1982 , 553-563		17
92	A real-time ultrasound process tomography system using a reflection-mode reconstruction technique. <i>Flow Measurement and Instrumentation</i> , 2017 , 53, 107-115	2.2	15
91	In vivo biomicroscopy of the skin with high-resolution magnetic resonance imaging and high frequency ultrasound. <i>Biomedizinische Technik</i> , 2003 , 48, 130-4	1.3	15
90	Reconstruction of fluid motion in acoustic diffraction tomography. <i>Journal of the Acoustical Society of America</i> , 1996 , 99, 3029-3035	2.2	15
89	An acoustic sensor system for object recognition. <i>Sensors and Actuators A: Physical</i> , 1991 , 26, 541-547	3.9	15
88	Sonohistology for the computerized differentiation of parotid gland tumors. <i>Ultrasound in Medicine and Biology</i> , 2005 , 31, 1287-96	3.5	14
87	Ultrasonic tissue characterization for prostate diagnostics: spectral parameters vs. texture parameters. <i>Biomedizinische Technik</i> , 2003 , 48, 122-9	1.3	13
86	Noncontact thermal-wave imaging of subsurface structure with infrared detection. <i>Applied Physics Letters</i> , 1984 , 44, 1136-1138	3.4	13
85	Ultrasonic microscanning. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2010 , 224, 225-40	1.7	11
84	Synthetic aperture-based beam compression for intravascular ultrasound imaging. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2001 , 48, 189-201	3.2	10
83	Artifact reduction in non-destructive testing by means of complementary data fusion of x-ray computed tomography and ultrasonic pulse-echo testing. <i>Measurement Science and Technology</i> , 2013 , 24, 125403	2	9
82	Computer aided diagnosis of parotid gland lesions using ultrasonic multi-feature tissue characterization. <i>Ultrasound in Medicine and Biology</i> , 2010 , 36, 1525-34	3.5	9

81	Modification of in vitro degradation behavior of pure iron with ultrasonication treatment: Comparison of two different pseudo-physiological solutions. <i>Materials Science and Engineering C</i> , 2019 , 95, 275-285	8.3	9
80	Full angle spatial compounding for improved replenishment analyses in contrast perfusion imaging: in vitro studies. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2008 , 55, 819-31	3.2	8
79	Real-time detection of vessel diameters with ultrasound. <i>Biomedizinische Technik</i> , 2003 , 48, 141-6	1.3	8
78	Ultrasonographic contrast-agent imaging of sub-millimeter vessel structures with spatial compounding: in vitro analyses. <i>Biomedizinische Technik</i> , 2007 , 52, 274-83	1.3	8
77	Ultrasound Spiral Computed Tomography for Differential Diagnosis of Breast Tumors Using a Conventional Ultrasound System. <i>Acoustical Imaging</i> , 2004 , 627-633		8
76	A New High Frequency Ultrasound Skin Imaging System: Imaging Properties and Clinical in Vivo Results. <i>Acoustical Imaging</i> , 2007 , 137-144		8
75	Ultrasonic Defect Characterization in Heavy Rotor Forgings by Means of the Synthetic Aperture Focusing Technique and Optimization Methods. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2016 , 63, 874-85	3.2	7
74	Ultrasound computed tomography in breast imaging: first clinical results of a custom-made scanner. <i>Ultraschall in Der Medizin</i> , 2010 , 31, 604-9	3.8	7
73	Three-dimensional reconstruction of fine vascularity in ultrasound breast imaging using contrast-enhanced spatial compounding: in vitro analyses. <i>Academic Radiology</i> , 2008 , 15, 1155-64	4.3	7
72	9C-2 Reconstruction of Speed of Sound for a Correction of Transit Time in Full Angle Spatial Compounding. <i>Proceedings IEEE Ultrasonics Symposium</i> , 2007 ,		7
71	High Frequency Ultrasonic Imaging: System Design and Performance Optimization. <i>Frequenz</i> , 2005 , 59,	0.6	7
70	Assessment of brain perfusion with echo contrast specific imaging modes and Optison. <i>Academic Radiology</i> , 2002 , 9 Suppl 2, S386-8	4.3	7
69	In Vivo Study of Online Liver Tissue Classification Based on Envelope Power Spectrum Analysis. <i>Ultrasonic Imaging</i> , 1994 , 16, 77-86	1.9	7
68	Thermal coupling of particulates to substrates. <i>Applied Physics Letters</i> , 1985 , 46, 1054-1056	3.4	7
67	Simulation of full-angle ultrasound process tomography with two-phase media using a ray-tracing technique 2014 ,		6
66	Linear synthetic aperture modes for ultrasonic pulse-echo imaging. <i>Biomedizinische Technik</i> , 1997 , 42, 108-15	1.3	6
65	Ultrasound breast imaging using Full Angle Spatial Compounding: In-vivo results 2008 ,		6
64	Strain imaging with intravascular ultrasound array scanners: validation with phantom experiments. <i>Biomedizinische Technik</i> , 2003 , 48, 135-40	1.3	6

63	Cross-flow visualization by acoustic CT measurements. <i>Ultrasonics</i> , 1996 , 34, 517-522	3.5	6
62	Gaussian beams in anisotropic media. <i>Electronics Letters</i> , 1970 , 6, 720	1.1	6
61	Sonographic detection of magnetic nanoparticles for Magnetic Drug Targeting using coded magnetic fields 2016 ,		5
60	An ultrasound tomography system with polyvinyl alcohol (PVA) moldings for coupling: in vivo results for 3-D pulse-echo imaging of the female breast. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2015 , 62, 266-79	3.2	5
59	In vivo evaluation and in vitro accuracy measurements for an ultrasound-CT registration algorithm. <i>International Congress Series</i> , 2005 , 1281, 583-588		5
58	Technologies for haptic displays in teleoperation. <i>Industrial Robot</i> , 2003 , 30, 525-530	1.4	5
57	Ultrasonic imaging of sheet metal forming. <i>Ultrasonics</i> , 2004 , 42, 989-92	3.5	5
56	A Comparison of Broadband Holographic and Tomographic Imaging Concepts. <i>Acoustical Imaging</i> , 1991 , 381-390		5
55	4C-4 A New Designed Schlieren System for the Visualization of Ultrasonic Pulsed Wave Fields with High Spatial and Temporal Resolution 2006 ,		4
54	Bone registration with 3D CT and ultrasound data sets. <i>International Congress Series</i> , 2003 , 1256, 426-432		4
53	A NEW ER FLUID BASED HAPTIC ACTUATOR SYSTEM FOR VIRTUAL REALITY. <i>International Journal of Modern Physics B</i> , 2005 , 19, 1628-1634	1.1	4
52	High-frequency ultrasonic imaging and its applications in skin 1999 ,		4
51	Refraction and time of flight corrections in 3D ultrasound computed tomography 2010 ,		3
50	A method to expedite data acquisition for multiple spatial-temporal analyses of tissue perfusion by contrast-enhanced ultrasound. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2009 , 56, 507-19	3.2	3
49	Ultrasonic Two-Port Measurements for the Reconstruction of Layered Media Properties. <i>Frequenz</i> , 2009 , 63,	0.6	3
48	Measurement and multivariate analysis of ultrasound parameters for quantitative characterization of liquids 2012 ,		3
47	Determination of a mean sound velocity in the female breast for artifact reduction in Full Angle Spatial Compounding 2009 ,		3
46	Analysis of vacuum microelectronic components by the use of special finite elements. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1996 , 14, 2100		3

45	3D small animal imaging with high-frequency ultrasound (20 MHz) using limited-angle spatial compounding 2008 ,		3
44	Parametric imaging of specular reflections and diffuse scattering of tissue from multi-directional ultrasound echo signal data 2008 ,		3
43	11B-3 A Unified Transmission/Reflection Acoustic Tomography Scheme for Small Animal Tissue Characterization. <i>Proceedings IEEE Ultrasonics Symposium</i> , 2007 ,		3
42	P1C-1 Evaluation of Material Parameters of PVA Phantoms for Reconstructive Ultrasound Elastography. <i>Proceedings IEEE Ultrasonics Symposium</i> , 2007 ,		3
41	P5B-1 A Fast Method for Data Acquisition in Contrast Replenishment Analyses. <i>Proceedings IEEE Ultrasonics Symposium</i> , 2007 ,		3
40	A New Haptic Sensor Actuator System for Virtual Reality Applications in Medicine. <i>Lecture Notes in Computer Science</i> , 2003 , 132-140	0.9	3
39	Vibrography: first experimental results in swine brains. <i>Minimally Invasive Neurosurgery</i> , 2004 , 47, 79-85		3
38			3
37			3
36	Transfer function analysis of a quasioptical ultrasonic imaging system. <i>Ultrasonic Imaging</i> , 1984 , 6, 324-341		3
35	A Novel Approach for Ultrasonic Imaging of Sheet Contours for Hydroforming. <i>Acoustical Imaging</i> , 2004 , 17-23		3
34	Simulation and evaluation of fan-shaped beam ultrasound transducers for multiphase flow process tomography 2013 ,		2
33	Sonographic detection of magnetic nanoparticles for Magnetic Drug Targeting in weak echogenic tissue 2015 ,		2
32	Systemtheoretische Analyse des Ultraschallkontrastmittels Levovist. <i>Biomedizinische Technik</i> , 1995 , 40, 271-272	1.3	2
31	High-Resolution Sonography of the Epidermis In Vivo 2006 , 245-255		2
30	Numerical Ray-Tracing in Full Angle Spatial Compounding. <i>Acoustical Imaging</i> , 2012 , 103-113		2
29	Classification of Thermally Ablated Tissue Using Diagnostic Ultrasound. <i>Acoustical Imaging</i> , 2007 , 295-300		2
28	Color-Coded Tissue Characterization Images of the Prostate. <i>Acoustical Imaging</i> , 1996 , 359-364		2

27	3D-pulse-echo-tomography for breast cancer and rheumatoid arthritis diagnosis Add-on-system and latest in-vivo-results 2016 ,		1
26	Ultrasonic defect detection in multi-material, axis-symmetric devices with an improved synthetic aperture focusing technique (SAFT) 2012 ,		1
25	Investigation of the Synthetic Aperture Focusing Technique resolution for heavy rotor forging ultrasonic inspection 2013 ,		1
24	Quantitative analysis of liquids and emulsions by means of high-frequency ultrasound (1585 MHz) 2011 ,		1
23	2D transmission imaging with a crossed-array configuration for defect detection 2012 ,		1
22	Contour tracking of specularly reflecting surfaces. <i>Ultrasonics</i> , 2006 , 44 Suppl 1, e1089-92	3.5	1
21	P3D-1 An Analysis of Refraction Artifacts in Time-of-Flight Tomography Regarding their Impact on Image Definition and Contrast Resolution. <i>Proceedings IEEE Ultrasonics Symposium</i> , 2007 ,		1
20	7C-4 A Novel Approach to Assess the Stiffness of Vessels by Means of Pulse Wave Analysis in Transcutaneous Ultrasound. <i>Proceedings IEEE Ultrasonics Symposium</i> , 2007 ,		1
19	Trends in Time Series of Parameters from Ultrasonic Images Due to Metabolic Activities of the Human Liver 2005 , 445-449		1
18	Characterization of field emitter structures by means of modeling electron trajectories in vacuum. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1995 , 13, 545		1
17	Über die Problematik des experimentellen Vergleichs der Wirkung von Lithotripter-Systemen. <i>Aktuelle Urologie</i> , 1994 , 25, 26-30	0.4	1
16			1
15	Real Time Neuronavigation Using 3-D Ultrasound and MRI in Patients with Brain Tumor 2007 , 59-63		1
14	An Enhanced Magnetomotive Ultrasound Algorithm to Quantitatively Estimate the Concentration of Iron-Oxide Nanoparticles in Perfused Tissue for Magnetic Drug Targeting 2019 ,		1
13	Quantitative Determination of Local Density of Iron Oxide Nanoparticles Used for Drug Targeting Employing Inverse Magnetomotive Ultrasound. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2021 , 68, 2482-2495	3.2	1
12	Comparison of Plane Wave Decomposition and Ray-Tracing in Simulation of B-Mode Imaging in Layered Media. <i>Acoustical Imaging</i> , 1996 , 57-62		1
11	High-Frequency Ultrasonic Systems for High-Resolution Ranging and Imaging 2013 , 93-123		
10	A nonuniform sampling approach for fast ultrasonic flow imaging. <i>Biomedizinische Technik</i> , 2003 , 48, 147-51	1.3	

- 9 3D Geometry Detection by Sparse Ultrasonic Transducer Arrays for Sheet Metal Hydroforming. *Steel Research International*, **2005**, 76, 874-878 1.6
- 8 A Method for Detecting Echoes from Microbubble Contrast Agents Based on Time Variance **2002**, 287-294
- 7 Analyse der TE₀nm -Schwingungen geschirmter dielektrischer Zylinder mit der Methode der finiten Elemente. *Archiv Fuer Elektrotechnik*, **1991**, 74, 213-217
- 6 Entwicklung eines haptischen Sensor-Aktor-Systems für Anwendungen in der virtuellen Realität **2005**, 237-241
- 5 Beurteilung der Hirnperfusion bei Schlaganfallpatienten durch Auswertung von Kontrastmittel-Ultraschall-Bildserien **2005**, 415-419
- 4 Ultrasound Based Navigation System for Minimal Invasive Surgery at the Lumbar Spine within OrthoMIT **2007**, 224-229
- 3 Ultrasonic Strain Imaging and Reconstructive Elastography for Biological Tissue **2008**, 103-132
- 2 New Development of an Ultrasound Transmission Camera. *Acoustical Imaging*, **2002**, 397-404
- 1 Ultrasound Based Methods for Monitoring of Thermal Therapies. *Acoustical Imaging*, **2004**, 643-649