

# Georg Schmitz

## List of Publications by Citations

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

111  
papers

1,497  
citations

22  
h-index

34  
g-index

176  
ext. papers

1,970  
ext. citations

3.9  
avg, IF

4.79  
L-index

#	Paper	IF	Citations
111	Super-resolution Ultrasound Imaging. <i>Ultrasound in Medicine and Biology</i> , <b>2020</b> , 46, 865-891	3.5	83
110	Gradient Spin Echo (GraSE) imaging for fast myocardial T2 mapping. <i>Journal of Cardiovascular Magnetic Resonance</i> , <b>2015</b> , 17, 12	6.9	79
109	Detection and Tracking of Multiple Microbubbles in Ultrasound B-Mode Images. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , <b>2016</b> , 63, 72-82	3.2	74
108	Motion model ultrasound localization microscopy for preclinical and clinical multiparametric tumor characterization. <i>Nature Communications</i> , <b>2018</b> , 9, 1527	17.4	71
107	Analysis of ultrasound fields in cell culture wells for in vitro ultrasound therapy experiments. <i>Ultrasound in Medicine and Biology</i> , <b>2011</b> , 37, 2105-15	3.5	70
106	Magnetic and Acoustically Active Lipospheres for Magnetically Targeted Nucleic Acid Delivery. <i>Advanced Functional Materials</i> , <b>2010</b> , 20, 3881-3894	15.6	60
105	Tissue-characterization of the prostate using radio frequency ultrasonic signals. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , <b>1999</b> , 46, 126-38	3.2	57
104	Ultrasonic bubbles in medicine: influence of the shell. <i>Ultrasonics Sonochemistry</i> , <b>2007</b> , 14, 438-44	8.9	55
103	Bursting bubbles and bilayers. <i>Theranostics</i> , <b>2012</b> , 2, 1140-59	12.1	52
102	Targeted ultrasound imaging of cancer: an emerging technology on its way to clinics. <i>Current Pharmaceutical Design</i> , <b>2012</b> , 18, 2184-99	3.3	48
101	Bubble dynamics involved in ultrasonic imaging. <i>Expert Review of Molecular Diagnostics</i> , <b>2006</b> , 6, 493-502, 8	3.8	44
100	Multispectral photoacoustic coded excitation imaging using unipolar orthogonal Golay codes. <i>Optics Express</i> , <b>2010</b> , 18, 9076-87	3.3	42
99	Advanced characterization and refinement of poly N-butyl cyanoacrylate microbubbles for ultrasound imaging. <i>Ultrasound in Medicine and Biology</i> , <b>2011</b> , 37, 1622-34	3.5	36
98	Fast pulse-echo ultrasound imaging employing compressive sensing <b>2011</b> ,		32
97	Advanced Ultrasound Technologies for Diagnosis and Therapy. <i>Journal of Nuclear Medicine</i> , <b>2018</b> , 59, 740-746	8.9	27
96	Imaging tumor vascularity by tracing single microbubbles <b>2011</b> ,		27
95	Unilateral deep brain stimulation suppresses alpha and beta oscillations in sensorimotor cortices. <i>NeuroImage</i> , <b>2018</b> , 174, 201-207	7.9	26

94	Clinical Pilot Application of Super-Resolution US Imaging in Breast Cancer. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , <b>2019</b> , 66, 517-526	3.2	26
93	Experimental evaluation of photoacoustic coded excitation using unipolar golay codes. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , <b>2010</b> , 57, 1583-93	3.2	24
92	Phospholipid-stabilized microbubbles: Influence of shell chemistry on cavitation threshold and binding to giant uni-lamellar vesicles. <i>Applied Acoustics</i> , <b>2009</b> , 70, 1313-1322	3.1	24
91	Size-dependent multispectral photoacoustic response of solid and hollow gold nanoparticles. <i>Nanotechnology</i> , <b>2012</b> , 23, 225707	3.4	24
90	Nitric oxide delivery by ultrasonic cracking: some limitations. <i>Ultrasonics</i> , <b>2006</b> , 44 Suppl 1, e109-13	3.5	22
89	Compressed Sensing for Fast Image Acquisition in Pulse-Echo Ultrasound. <i>Biomedizinische Technik</i> , <b>2012</b> , 57,	1.3	20
88	Influence of shell composition on the resonance frequency of microbubble contrast agents. <i>Ultrasound in Medicine and Biology</i> , <b>2013</b> , 39, 1292-302	3.5	18
87	Synergistic effects of sonoporation and taurolidin/TRAIL on apoptosis in human fibrosarcoma. <i>Ultrasound in Medicine and Biology</i> , <b>2010</b> , 36, 1893-906	3.5	18
86	Model-based estimation of quantitative ultrasound variables at the proximal femur. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , <b>2008</b> , 55, 1304-15	3.2	18
85	Low-Dose Molecular Ultrasound Imaging with E-Selectin-Targeted PBCA Microbubbles. <i>Molecular Imaging and Biology</i> , <b>2016</b> , 18, 180-90	3.8	18
84	Rejecting deep brain stimulation artefacts from MEG data using ICA and mutual information. <i>Journal of Neuroscience Methods</i> , <b>2016</b> , 268, 131-41	3	17
83	Nonlinear simultaneous reconstruction of inhomogeneous compressibility and mass density distributions in unidirectional pulse-echo ultrasound imaging. <i>Physics in Medicine and Biology</i> , <b>2013</b> , 58, 6163-78	3.8	17
82	The EASI project--improving the effectiveness and quality of image-guided surgery. <i>IEEE Transactions on Information Technology in Biomedicine</i> , <b>1998</b> , 2, 156-68		17
81	Ultrasonic imaging of molecular targets. <i>Basic Research in Cardiology</i> , <b>2008</b> , 103, 174-81	11.8	17
80	Magnetic Microbubbles: Magnetically Targeted and Ultrasound-Triggered Vectors for Gene Delivery in Vitro <b>2010</b> ,		15
79	A Gaussian approach for the calculation of the accuracy of stereotactic frame systems. <i>Medical Physics</i> , <b>1999</b> , 26, 381-391	4.4	15
78	Photoacoustic clutter reduction by inversion of a linear scatter model using plane wave ultrasound measurements. <i>Biomedical Optics Express</i> , <b>2016</b> , 7, 1468-78	3.5	15
77	Determination of microbubble cavitation threshold pressure as function of shell chemistry. <i>Bubble Science, Engineering &amp; Technology</i> , <b>2010</b> , 2, 55-64		14

76	Generation of a Droplet Inside a Microbubble with the Aid of an Ultrasound Contrast Agent: First Result. <i>Letters in Drug Design and Discovery</i> , <b>2007</b> , 4, 74-77	0.8	13
75	Evaluation of Ferucarbotran (Resovist) as a photoacoustic contrast agent / Evaluation von Ferucarbotran (Resovist) als photoakustisches Kontrastmittel. <i>Biomedizinische Technik</i> , <b>2009</b> , 54, 83-8	1.3	11
74	Estimation of multipath transmission parameters for quantitative ultrasound measurements of bone. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , <b>2013</b> , 60, 1884-95	3.2	10
73	Discussion of the application of finite Volterra series for the modeling of the oscillation behavior of ultrasound contrast agents. <i>Applied Acoustics</i> , <b>2009</b> , 70, 1363-1369	3.1	10
72	Optimized SNR simultaneous multispectral photoacoustic imaging with laser diodes. <i>Optics Express</i> , <b>2015</b> , 23, 1816-28	3.3	9
71	Pulse-echo ultrasound imaging combining compressed sensing and the fast multipole method <b>2014</b>		9
70	On the Performance of Time Domain Displacement Estimators for Magnetomotive Ultrasound Imaging. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , <b>2019</b> , 66, 911-921	3.2	8
69	Assessing Vessel Reconstruction in Ultrasound Localization Microscopy by Maximum Likelihood Estimation of a Zero-Inflated Poisson Model. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , <b>2020</b> , 67, 1603-1612	3.2	8
68	Low-Energy Ultrasound Treatment Improves Regional Tumor Vessel Infarction by Retargeted Tissue Factor. <i>Journal of Ultrasound in Medicine</i> , <b>2015</b> , 34, 1227-36	2.9	7
67	Fast image acquisition in pulse-echo ultrasound imaging using compressed sensing <b>2012</b> ,		7
66	Compensating the combined effects of absorption and dispersion in plane wave pulse-echo ultrasound imaging using sparse recovery <b>2013</b> ,		7
65	A statistical model for the quantification of microbubbles in destructive imaging. <i>Investigative Radiology</i> , <b>2010</b> , 45, 592-9	10.1	7
64	Coencapsulation of lipid microbubbles within polymer microcapsules for contrast applications. <i>Bubble Science, Engineering &amp; Technology</i> , <b>2011</b> , 3, 12-19		7
63	Plane Wave Pulse-Echo Ultrasound Diffraction Tomography with a Fixed Linear Transducer Array. <i>Acoustical Imaging</i> , <b>2012</b> , 19-30		7
62	Evaluation of bubble tracking algorithms for super-resolution imaging of microvessels <b>2016</b> ,		6
61	Ultrafast volumetric B1 (+) mapping for improved radiofrequency shimming in 3 tesla body MRI. <i>Journal of Magnetic Resonance Imaging</i> , <b>2014</b> , 40, 857-63	5.6	5
60	Model-based parameter estimation in the frequency domain for Quantitative Ultrasound measurement of bone <b>2009</b> ,		5
59	Modeling and Measurement of the Nonlinear Force on Nanoparticles in Magnetomotive Techniques. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , <b>2020</b> , 67, 679-690	3.2	5

58	Automated Generation of Reliable Blood Velocity Parameter Maps from Contrast-Enhanced Ultrasound Data. <i>Contrast Media and Molecular Imaging</i> , <b>2017</b> , 2017, 2098324	3.2	4
57	Piezoelectric Thin Films: A Technology Platform for Innovative Devices. <i>Integrated Ferroelectrics</i> , <b>2012</b> , 134, 25-36	0.8	4
56	Multispectral photoacoustic coded excitation using pseudorandom codes <b>2012</b> ,		4
55	Simulation study of photoacoustic coded excitation using Golay Codes <b>2008</b> ,		4
54	A method for the determination of the inertial cavitation threshold of ultrasound contrast agents <b>2008</b> ,		4
53	Hybrid 3D Sono/PET in a mouse. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , <b>2007</b> , 34, 1706-7	8.8	4
52	Ultrasound in Medical Diagnosis <b>2002</b> , 162-174		4
51	Electro-acoustical characterization procedure for cMUTs. <i>Ultrasonics</i> , <b>2005</b> , 43, 383-90	3.5	4
50	Real-Time Magnetomotive Ultrasound Imaging Using a Recursive Estimator <b>2018</b> ,		4
49	Relative Blood Volume Estimation from Clinical Super-Resolution US Imaging in Breast Cancer <b>2018</b> ,		4
48	Full-Wave Ultrasound Reconstruction with Linear Arrays Based on a Fourier Split-Step Approach <b>2018</b> ,		4
47	Reconstruction of flow velocity inside vessels by tracking single microbubbles with an MCMC data association algorithm <b>2013</b> ,		3
46	Size distribution of microbubbles as a function of shell composition. <i>Ultrasonics</i> , <b>2013</b> , 53, 1363-7	3.5	3
45	Monitoring and modeling of microbubble behavior during ultrasound mediated transfection of cell monolayers <b>2008</b> ,		3
44	7A-3 Optimal Pulse Sequences for the Suppression of Memoryless Tissue Harmonics. <i>Proceedings IEEE Ultrasonics Symposium</i> , <b>2007</b> ,		3
43	Spatiotemporal multiscale vessel enhancement for coronary angiograms <b>2002</b> ,		3
42	Phase shift variance imaging - a new technique for destructive microbubble imaging. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , <b>2013</b> , 60, 909-23	3.2	2
41	Notice of Removal: Random incident sound waves for fast compressed pulse-echo ultrasound imaging <b>2017</b> ,		2

40	Assessment of the potential of beamforming for needle enhancement in punctures <b>2015</b> ,		2
39	Needle visibility for deep punctures with curved arrays <b>2014</b> ,		2
38	The separate recovery of spatial fluctuations in compressibility and mass density in plane wave pulse-echo ultrasound imaging <b>2013</b> ,		2
37	<b>2010</b> ,		2
36	Evaluation of an analytical solution to the Burgers equation based on Volterra series <b>2009</b> ,		2
35	2A-6 Optimization Algorithm for Improved Quantitative Ultrasound Signal Processing at the Proximal Femur <b>2006</b> ,		2
34	Effects of contrast-enhanced ultrasound treatment on neoadjuvant chemotherapy in breast cancer. <i>Theranostics</i> , <b>2021</b> , 11, 9557-9570	12.1	2
33	Beschleunigung und Bewertung blockbasierter Bewegungsschätzmethoden für die Röntgenfluoroskopie. <i>Informatik Aktuell</i> , <b>2000</b> , 123-130	0.3	2
32	Microcapsules: Reverse Sonoporation and Long-lasting, Safe Contrast. <i>Acoustical Imaging</i> , <b>2012</b> , 81-90		2
31	Transversally travelling ultrasound for light guiding deep into scattering media. <i>Communications Physics</i> , <b>2020</b> , 3,	5.4	2
30	Reliable Motion Estimation in Super-Resolution US by Reducing the Interference of Microbubble Movement <b>2019</b> ,		2
29	Color-Coded Tissue Characterization Images of the Prostate. <i>Acoustical Imaging</i> , <b>1996</b> , 359-364		2
28	Magnetomotive ultrasound imaging using the nonlinear magnetization of nanoparticles <b>2017</b> ,		1
27	Aberration correction in photoacoustic imaging using paraxial backpropagation <b>2017</b> ,		1
26	Determination of adequate measurement times for super-resolution characterization of tumor vascularization <b>2017</b> ,		1
25	Iterative photoacoustic reconstruction in heterogeneous media using the Kaczmarz method <b>2014</b> ,		1
24	Photoacoustic coded excitation using pulse position modulation <b>2013</b> ,		1
23	Photoacoustic clutter reduction using plane wave ultrasound and a linear scatter estimation approach <b>2015</b> ,		1

22	Nonlinear reconstruction of the speed of sound in soft tissues: A comparison between the simulation results applying Kaczmarz and Contrast Source Inversion methods <b>2014</b> ,	1
21	Evaluation of a nonlinear simultaneous compressibility and mass density reconstruction algorithm in contrast to established linear ultrasound imaging approaches <b>2013</b> ,	1
20	Quantitative photoacoustic blood oxygenation measurement of whole porcine blood samples using a multi-wavelength semiconductor laser system <b>2011</b> ,	1
19	Method for the estimation and compensation of attenuating tissue layers by the acoustic observation of microbubbles for sonoporation therapy <b>2010</b> ,	1
18	<b>2011</b> ,	1
17	Compact semiconductor laser sources for photoacoustic imaging <b>2009</b> ,	1
16	Fast simulation of second harmonic ultrasound fields <b>2009</b> ,	1
15	Size dependent photoacoustic signal response of gold nanoparticles using a multispectral laser diode system <b>2012</b> ,	1
14	Influence of Microbubble Shell Chemistry on the Destruction Threshold of Ultrasound Contrast Agent Microbubbles. <i>Acoustical Imaging</i> , <b>2012</b> , 91-101	1
13	Mutual Attraction of Oscillating Microbubbles <b>2007</b> , 75-80	1
12	Ultrasonic fragmentation of microbubbles: a theoretical approach of the flash in flash-echo. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , <b>2005</b> , 2005, 4023-6	1
11	Transient Light Waveguides Deep Into Scattering Media by Transversal Ultrasound <b>2020</b> ,	1
10	<b>2016</b> ,	1
9	Maximum-Likelihood Estimation to Assess the Degree of Reconstruction of Microvasculature from Super-Resolution US Imaging <b>2019</b> ,	1
8	Improving Harmonic Motion Estimation with Phase-Based Estimators for Magnetomotive Ultrasound Imaging <b>2019</b> ,	1
7	Accelerating Nonlinear Speed of Sound Reconstructions Using a Randomized Block Kaczmarz Algorithm <b>2018</b> ,	1
6	Ultrasound Imaging. <i>Recent Results in Cancer Research</i> , <b>2020</b> , 216, 135-154	1.5
5	Sonographic visibility of cannulas using convex ultrasound transducers. <i>Biomedizinische Technik</i> , <b>2019</b> , 64, 691-698	1.3

- 4 Improvement of ultrasound compound imaging by speed-of-sound estimation. *Biomedizinische Technik*, **2002**, 47 Suppl 1 Pt 1, 430-3 1.3
- 3 Ultrasound Based Navigation System for Minimal Invasive Surgery at the Lumbar Spine within OrthoMIT **2007**, 224-229
- 2 Biomedical Sonography **2012**, 331-367
- 1 Identification of static nonlinearities by sinusoidal excitation with variable DC offsets. *Review of Scientific Instruments*, **2021**, 92, 035103 1.7