

Michael L Oelze

List of Publications by Year in Descending Order

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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.

102
papers

2,226
citations

29
h-index

44
g-index

144
ext. papers

2,768
ext. citations

3.5
avg, IF

5.07
L-index

| # | Paper | IF | Citations |
|-----|---|------|-----------|
| 102 | Combined therapy planning, real-time monitoring, and low intensity focused ultrasound treatment using a diagnostic imaging array.. <i>IEEE Transactions on Medical Imaging</i> , 2022 , PP, | 11.7 | 1 |
| 101 | Identifying and overcoming limitations with in situ calibration beads for quantitative ultrasound.. <i>Journal of the Acoustical Society of America</i> , 2022 , 151, 2701 | 2.2 | |
| 100 | Use of a convolutional neural network and quantitative ultrasound for diagnosis of fatty liver. <i>Ultrasound in Medicine and Biology</i> , 2021 , 47, 556-568 | 3.5 | 2 |
| 99 | Total attenuation compensation for backscatter coefficient estimation using full angular spatial compounding. <i>Ultrasonics</i> , 2021 , 114, 106376 | 3.5 | 2 |
| 98 | Real-Time Visualization of a Focused Ultrasound Beam Using Ultrasonic Backscatter. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2021 , 68, 1213-1223 | 3.2 | 1 |
| 97 | Video-Capable Ultrasonic Wireless Communications Through Biological Tissues. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2021 , 68, 664-674 | 3.2 | 3 |
| 96 | High Data Rate Communications In Vivo Using Ultrasound. <i>IEEE Transactions on Biomedical Engineering</i> , 2021 , 68, 3308-3316 | 5 | 1 |
| 95 | Estimation of Backscatter Coefficients Using an In Situ Calibration Source. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2020 , 67, 308-317 | 3.2 | 1 |
| 94 | Emergency ventilator for COVID-19. <i>PLoS ONE</i> , 2020 , 15, e0244963 | 3.7 | 11 |
| 93 | Real-Time Visualization of a Focused Ultrasound Beam Using Ultrasonic Backscatter for Monitoring of Mechanical-Based Therapies 2020 , | | 1 |
| 92 | Low-Complexity System and Algorithm for an Emergency Ventilator Sensor and Alarm. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2020 , 14, 1088-1096 | 5.1 | 7 |
| 91 | Optimization of microbubble enhancement of hyperthermia for cancer therapy in an in vivo breast tumour model. <i>PLoS ONE</i> , 2020 , 15, e0237372 | 3.7 | 5 |
| 90 | Effects of acoustic nonlinearity on pulse-echo attenuation coefficient estimation from tissue-mimicking phantoms. <i>Journal of the Acoustical Society of America</i> , 2020 , 148, 805 | 2.2 | 1 |
| 89 | Characterizing Fatty Liver in vivo in Rabbits, Using Quantitative Ultrasound. <i>Ultrasound in Medicine and Biology</i> , 2019 , 45, 2049-2062 | 3.5 | 7 |
| 88 | High-intensity focused ultrasound-induced mechanochemical transduction in synthetic elastomers. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 10214-10222 | 11.5 | 25 |
| 87 | Visualization of the Intensity Field of a Focused Ultrasound Source In Situ. <i>IEEE Transactions on Medical Imaging</i> , 2019 , 38, 124-133 | 11.7 | 6 |
| 86 | Effects of acoustic nonlinearities on the ultrasonic backscatter coefficient estimation. <i>Journal of the Acoustical Society of America</i> , 2019 , 146, 85 | 2.2 | 3 |

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| 85 | Ultrasound microbubble potentiated enhancement of hyperthermia-effect in tumours. <i>PLoS ONE</i> , 2019 , 14, e0226475 | 3.7 | 8 |
| 84 | Improving Spatial Resolution Using Incoherent Subtraction of Receive Beams Having Different Apodizations. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2019 , 66, 5-17 | 3.2 | 8 |
| 83 | Effects of the container on structure function with impedance map analysis of dense scattering media. <i>Journal of the Acoustical Society of America</i> , 2018 , 143, 2172 | 2.2 | 2 |
| 82 | Theory of Ultrasound Physics and Imaging 2018 , 7-28 | | |
| 81 | InVivo Multiparametric Ultrasound Imaging of Structural and Functional Tumor Modifications during Therapy. <i>Ultrasound in Medicine and Biology</i> , 2017 , 43, 2000-2012 | 3.5 | 12 |
| 80 | A contactless ultrasonic surface wave approach to characterize distributed cracking damage in concrete. <i>Ultrasonics</i> , 2017 , 75, 46-57 | 3.5 | 28 |
| 79 | Limitations on estimation of effective scatterer diameters. <i>Journal of the Acoustical Society of America</i> , 2017 , 142, 3677 | 2.2 | 2 |
| 78 | Mbps experimental acoustic through-tissue communications: MEAT-COMMS 2016 , | | 14 |
| 77 | Focused Ultrasound Treatment of Cervical Lymph Nodes in Rats with EAE: A Pilot Study. <i>Ultrasound in Medicine and Biology</i> , 2016 , 42, 2957-2964 | 3.5 | 1 |
| 76 | Review of Quantitative Ultrasound: Envelope Statistics and Backscatter Coefficient Imaging and Contributions to Diagnostic Ultrasound. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2016 , 63, 336-51 | 3.2 | 142 |
| 75 | High-frequency ultrasound detection of cell death: Spectral differentiation of different forms of cell death. <i>Oncoscience</i> , 2016 , 3, 275-287 | 0.8 | 6 |
| 74 | Using two-dimensional impedance maps to study weak scattering in sparse random media. <i>Journal of the Acoustical Society of America</i> , 2016 , 139, 1557 | 2.2 | 5 |
| 73 | Species-Independent Modeling of High-Frequency Ultrasound Backscatter in Hyaline Cartilage. <i>Ultrasound in Medicine and Biology</i> , 2016 , 42, 1375-84 | 3.5 | 4 |
| 72 | Non-invasive evaluation of breast cancer response to chemotherapy using quantitative ultrasonic backscatter parameters. <i>Medical Image Analysis</i> , 2015 , 20, 224-36 | 15.4 | 67 |
| 71 | Quantitative Ultrasound Comparison of MAT and 4T1 Mammary Tumors in Mice and Rats Across Multiple Imaging Systems. <i>Journal of Ultrasound in Medicine</i> , 2015 , 34, 1373-83 | 2.9 | 10 |
| 70 | Experimental application of ultrafast imaging to spectral tissue characterization. <i>Ultrasound in Medicine and Biology</i> , 2015 , 41, 2506-19 | 3.5 | 11 |
| 69 | Backscatter coefficient estimation using tapers with gaps. <i>Ultrasonic Imaging</i> , 2015 , 37, 117-34 | 1.9 | 5 |
| 68 | Scattering by single physically large and weak scatterers in the beam of a single-element transducer. <i>Journal of the Acoustical Society of America</i> , 2015 , 137, 1153-63 | 2.2 | 3 |

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| 67 | Enhancing cell kill in vitro from hyperthermia through pre-sensitizing with ultrasound-stimulated microbubbles. <i>Journal of the Acoustical Society of America</i> , 2015 , 138, EL493-7 | 2.2 | 3 |
| 66 | Improving lateral resolution in ultrasonic Imaging by utilizing nulls in the beam pattern 2015 , | | 2 |
| 65 | Improving the quality of attenuation imaging using full angular spatial compounding 2014 , | | 3 |
| 64 | Quantitative ultrasound imaging for monitoring in situ high-intensity focused ultrasound exposure. <i>Ultrasonic Imaging</i> , 2014 , 36, 239-55 | 1.9 | 14 |
| 63 | 3-D high-frequency ultrasound backscatter analysis of human articular cartilage. <i>Ultrasound in Medicine and Biology</i> , 2014 , 40, 244-57 | 3.5 | 12 |
| 62 | Quantitative imaging of temperature elevations in tissues due to thermal therapies 2014 , | | 1 |
| 61 | Exploring potential mechanisms responsible for observed changes of ultrasonic backscattered energy with temperature variations. <i>Medical Physics</i> , 2014 , 41, 052901 | 4.4 | 7 |
| 60 | Amplitude modulated chirp excitation to reduce grating lobes and maintain ultrasound intensity at the focus of an array. <i>Ultrasonics</i> , 2013 , 53, 1293-303 | 3.5 | 7 |
| 59 | Characterization of thyroid cancer in mouse models using high-frequency quantitative ultrasound techniques. <i>Ultrasound in Medicine and Biology</i> , 2013 , 39, 2333-41 | 3.5 | 29 |
| 58 | Three-dimensional quantitative ultrasound for detecting lymph node metastases. <i>Journal of Surgical Research</i> , 2013 , 183, 258-69 | 2.5 | 18 |
| 57 | Assessment of high-intensity focused ultrasound treatment of rodent mammary tumors using ultrasound backscatter coefficients. <i>Journal of the Acoustical Society of America</i> , 2013 , 134, 1559-68 | 2.2 | 7 |
| 56 | Production of uniformly sized serum albumin and dextrose microbubbles. <i>Ultrasonics Sonochemistry</i> , 2012 , 19, 198-208 | 8.9 | 32 |
| 55 | Ultrasonic assessment of thermal therapy in rat liver. <i>Ultrasound in Medicine and Biology</i> , 2012 , 38, 2130-3 | 3.5 | 23 |
| 54 | Ex vivo study of quantitative ultrasound parameters in fatty rabbit livers. <i>Ultrasound in Medicine and Biology</i> , 2012 , 38, 2238-48 | 3.5 | 80 |
| 53 | Quantitative ultrasound techniques and improvements to diagnostic ultrasonic imaging 2012 , | | 6 |
| 52 | Estimating concentration of ultrasound contrast agents with backscatter coefficients: experimental and theoretical aspects. <i>Journal of the Acoustical Society of America</i> , 2012 , 131, 2295-305 | 2.2 | 4 |
| 51 | Cross-imaging system comparison of backscatter coefficient estimates from a tissue-mimicking material. <i>Journal of the Acoustical Society of America</i> , 2012 , 132, 1319-24 | 2.2 | 29 |
| 50 | Synergistic effects of ultrasound-activated microbubbles and doxorubicin on short-term survival of mouse mammary tumor cells. <i>Ultrasonic Imaging</i> , 2012 , 34, 15-22 | 1.9 | 7 |

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| 49 | Comparison of ultrasound attenuation and backscatter estimates in layered tissue-mimicking phantoms among three clinical scanners. <i>Ultrasonic Imaging</i> , 2012 , 34, 209-21 | 1.9 | 40 |
| 48 | Changes in quantitative ultrasound parameters during HIFU application 2012 , | | 1 |
| 47 | A quantitative ultrasound-based method and device for reliably guiding pathologists to metastatic regions of dissected lymph nodes 2012 , | | 5 |
| 46 | Time domain attenuation estimation method from ultrasonic backscattered signals. <i>Journal of the Acoustical Society of America</i> , 2012 , 132, 533-43 | 2.2 | 9 |
| 45 | Ultrasonic attenuation and backscatter coefficient estimates of rodent-tumor-mimicking structures: comparison of results among clinical scanners. <i>Ultrasonic Imaging</i> , 2011 , 33, 233-50 | 1.9 | 35 |
| 44 | Analysis of human fibroadenomas using three-dimensional impedance maps. <i>IEEE Transactions on Medical Imaging</i> , 2011 , 30, 1206-13 | 11.7 | 10 |
| 43 | On the estimation of backscatter coefficients using single-element focused transducers. <i>Journal of the Acoustical Society of America</i> , 2011 , 129, 2903-11 | 2.2 | 32 |
| 42 | Three-dimensional high-frequency backscatter and envelope quantification of cancerous human lymph nodes. <i>Ultrasound in Medicine and Biology</i> , 2011 , 37, 345-57 | 3.5 | 99 |
| 41 | Temperature dependent ultrasonic characterization of biological media. <i>Journal of the Acoustical Society of America</i> , 2011 , 130, 2203-11 | 2.2 | 42 |
| 40 | Small lesion detection with resolution enhancement compression. <i>Ultrasonic Imaging</i> , 2010 , 32, 16-32 | 1.9 | 5 |
| 39 | Scattering by an arrangement of eccentric cylinders embedded on a coated cylinder with applications to tomographic density imaging. <i>Journal of the Acoustical Society of America</i> , 2010 , 127, 645-8 | 2.2 | 4 |
| 38 | Ultrasonic backscatter coefficients for weakly scattering, agar spheres in agar phantoms. <i>Journal of the Acoustical Society of America</i> , 2010 , 128, 903-8 | 2.2 | 13 |
| 37 | Interlaboratory comparison of backscatter coefficient estimates for tissue-mimicking phantoms. <i>Ultrasonic Imaging</i> , 2010 , 32, 48-64 | 1.9 | 39 |
| 36 | A new approach for detecting attenuation changes during high-intensity focused ultrasound 2010 , | | 2 |
| 35 | Assessment of the effects of scatterer size distributions on effective scatterer diameter estimates 2010 , | | 2 |
| 34 | Improving image contrast using coded excitation for ultrasonic imaging 2010 , | | 2 |
| 33 | Cross-imaging platform comparison of ultrasonic backscatter coefficient measurements of live rat tumors. <i>Journal of Ultrasound in Medicine</i> , 2010 , 29, 1117-23 | 2.9 | 14 |
| 32 | Low-frequency sound wave parameter measurement in gravels. <i>Applied Acoustics</i> , 2010 , 71, 45-51 | 3.1 | 2 |

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| 31 | Use of quantitative ultrasound to detect temperature variations in biological phantoms due to heating 2009 , | | 2 |
| 30 | Tomographic reconstruction of three-dimensional volumes using the distorted born iterative method. <i>IEEE Transactions on Medical Imaging</i> , 2009 , 28, 1643-53 | 11.7 | 38 |
| 29 | Density imaging using inverse scattering. <i>Journal of the Acoustical Society of America</i> , 2009 , 125, 793-802. | 2.2 | 33 |
| 28 | Implementation of scatterer size imaging on an ultrasonic breast tomography scanner 2009 , | | 3 |
| 27 | An improved method for tomographic density imaging using a multiple frequency inverse scattering approach 2009 , | | 2 |
| 26 | Estimation of the acoustic impedance of lung versus level of inflation for different species and ages of animals. <i>Journal of the Acoustical Society of America</i> , 2008 , 124, 2340-52 | 2.2 | 14 |
| 25 | Improving the quality of QUS imaging using full angular spatial compounding 2008 , | | 7 |
| 24 | In vivo ultrasonic attenuation slope estimates for detecting cervical ripening in rats: Preliminary results. <i>Journal of the Acoustical Society of America</i> , 2008 , 123, 1794-800 | 2.2 | 50 |
| 23 | Extended three-dimensional impedance map methods for identifying ultrasonic scattering sites. <i>Journal of the Acoustical Society of America</i> , 2008 , 123, 1195-1208 | 2.2 | 36 |
| 22 | Improved scatterer size estimation using backscatter coefficient measurements with coded excitation and pulse compression. <i>Journal of the Acoustical Society of America</i> , 2008 , 123, 4599-607 | 2.2 | 7 |
| 21 | Two approaches for tomographic density imaging using inverse scattering 2008 , | | 5 |
| 20 | Application of three scattering models to characterization of solid tumors in mice. <i>Ultrasonic Imaging</i> , 2006 , 28, 83-96 | 1.9 | 56 |
| 19 | Quantitative ultrasound assessment of the rat cervix. <i>Journal of Ultrasound in Medicine</i> , 2006 , 25, 1031-40. | 2.9 | 30 |
| 18 | Examination of cancer in mouse models using high-frequency quantitative ultrasound. <i>Ultrasound in Medicine and Biology</i> , 2006 , 32, 1639-48 | 3.5 | 74 |
| 17 | Interlaboratory comparison of ultrasonic backscatter coefficient measurements from 2 to 9 MHz. <i>Journal of Ultrasound in Medicine</i> , 2005 , 24, 1235-50 | 2.9 | 99 |
| 16 | Estimation of total attenuation and scatterer size from backscattered ultrasound waveforms. <i>Journal of the Acoustical Society of America</i> , 2005 , 117, 1431-9 | 2.2 | 47 |
| 15 | Identifying ultrasonic scattering sites from three-dimensional impedance maps. <i>Journal of the Acoustical Society of America</i> , 2005 , 117, 413-23 | 2.2 | 57 |
| 14 | Defining optimal axial and lateral resolution for estimating scatterer properties from volumes using ultrasound backscatter. <i>Journal of the Acoustical Society of America</i> , 2004 , 115, 3226-34 | 2.2 | 45 |

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| 13 | Improved scatterer property estimates from ultrasound backscatter for small gate lengths using a gate-edge correction factor. <i>Journal of the Acoustical Society of America</i> , 2004 , 116, 3212-23 | 2.2 | 17 |
| 12 | Differentiation and characterization of rat mammary fibroadenomas and 4T1 mouse carcinomas using quantitative ultrasound imaging. <i>IEEE Transactions on Medical Imaging</i> , 2004 , 23, 764-71 | 11.7 | 161 |
| 11 | Roughness Measurements of Soil Surfaces by Acoustic Backscatter. <i>Soil Science Society of America Journal</i> , 2003 , 67, 241-250 | 2.5 | 11 |
| 10 | Impedance measurements of ex vivo rat lung at different volumes of inflation. <i>Journal of the Acoustical Society of America</i> , 2003 , 114, 3384-93 | 2.2 | 13 |
| 9 | Roughness Measurements of Soil Surfaces by Acoustic Backscatter 2003 , 67, 241 | | 8 |
| 8 | Characterization of tissue microstructure using ultrasonic backscatter: theory and technique for optimization using a Gaussian form factor. <i>Journal of the Acoustical Society of America</i> , 2002 , 112, 1202-11 ² | 2.2 | 133 |
| 7 | Application of an acoustic backscatter technique for characterizing the roughness of porous soil. <i>Journal of the Acoustical Society of America</i> , 2002 , 111, 1565-77 | 2.2 | 4 |
| 6 | Method of improved scatterer size estimation and application to parametric imaging using ultrasound. <i>Journal of the Acoustical Society of America</i> , 2002 , 112, 3053-63 | 2.2 | 37 |
| 5 | Frequency-dependent attenuation-compensation functions for ultrasonic signals backscattered from random media. <i>Journal of the Acoustical Society of America</i> , 2002 , 111, 2308-19 | 2.2 | 74 |
| 4 | Parametric imaging of rat mammary tumors in vivo for the purposes of tissue characterization. <i>Journal of Ultrasound in Medicine</i> , 2002 , 21, 1201-10 | 2.9 | 36 |
| 3 | Measurement of Attenuation and Speed of Sound in Soils 2002 , 66, 788 | | 18 |
| 2 | Measurement of Attenuation and Speed of Sound in Soils. <i>Soil Science Society of America Journal</i> , 2002 , 66, 788-796 | 2.5 | 48 |
| 1 | Roughness characterization of porous soil with acoustic backscatter. <i>Journal of the Acoustical Society of America</i> , 2001 , 109, 1826-32 | 2.2 | 7 |