

# Robert E Malkin

## List of Publications by Year in descending order

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Version: 2024-02-01

41  
papers

2,362  
citations

257429

24  
h-index

265191

42  
g-index

45  
all docs

45  
docs citations

45  
times ranked

1717  
citing authors

#	ARTICLE	IF	CITATIONS
1	Strategies for guided acoustic wave inspection using mobile robots. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, 20210762.	2.1	6
2	Ultrasonic Nondestructive Characterization of Blockages and Defects in Underground Pipes. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2022, 69, 2540-2554.	3.0	6
3	Moth wings as sound absorber metasurface. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2022, 478, .	2.1	3
4	Building programmable multicompartment artificial cells incorporating remotely activated protein channels using microfluidics and acoustic levitation. Nature Communications, 2022, 13, .	12.8	16
5	Sonolithography: In-Air Ultrasonic Particulate and Droplet Manipulation for Multiscale Surface Patterning. Advanced Materials Technologies, 2021, 6, 2000689.	5.8	11
6	Transient ultrasound stimulation has lasting effects on neuronal excitability. Brain Stimulation, 2021, 14, 217-225.	1.6	37
7	The use of full-skip ultrasonic data and Bayesian inference for improved characterisation of crack-like defects. NDT and E International, 2021, 121, 102467.	3.7	9
8	Ultrasonic Defect Characterization Using the Scattering Matrix: A Performance Comparison Study of Bayesian Inversion and Machine Learning Schemas. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 3143-3155.	3.0	15
9	Exploring high-frequency eddy-current testing for sub-aperture defect characterisation using parametric-manifold mapping. NDT and E International, 2021, 124, 102534.	3.7	2
10	A Perspective on acoustical tweezers" devices, forces, and biomedical applications. Applied Physics Letters, 2020, 117, .	3.3	28
11	Comparison of Time Domain and Frequency-Wavenumber Domain Ultrasonic Array Imaging Algorithms for Non-Destructive Evaluation. Sensors, 2020, 20, 4951.	3.8	14
12	Comparing acoustic and optical forces for biomedical research. Nature Reviews Physics, 2020, 2, 480-491.	26.6	69
13	What is the ultimate capability of acoustophoretic volumetric displays?. Applied Physics Letters, 2020, 116, .	3.3	10
14	Thoracic scales of moths as a stealth coating against bat biosonar. Journal of the Royal Society Interface, 2020, 17, 20190692.	3.4	18
15	Volumetric imaging through a doubly-curved surface using a 2D phased array. NDT and E International, 2020, 113, 102260.	3.7	16
16	Moth wings are acoustic metamaterials. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 31134-31141.	7.1	34
17	Effect of surface compensation for imaging through doubly-curved surfaces using a 2D phased array. AIP Conference Proceedings, 2019, , .	0.4	2
18	Grain Scattering Noise Modeling and Its Use in the Detection and Characterization of Defects Using Ultrasonic Arrays. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2019, 66, 1798-1813.	3.0	10

#	ARTICLE	IF	CITATIONS
19	Acoustophoretic volumetric displays using a fast-moving levitated particle. Applied Physics Letters, 2019, 115, .	3.3	57
20	Spatiotemporal quantification of acoustic cell patterning using VoronoÃ tessellation. Lab on A Chip, 2019, 19, 562-573.	6.0	30
21	Acoustic Hologram Enhanced Phased Arrays for Ultrasonic Particle Manipulation. Physical Review Applied, 2019, 12, .	3.8	49
22	Chemical communication in spatially organized protocell colonies and protocell/living cell micro-arrays. Chemical Science, 2019, 10, 9446-9453.	7.4	82
23	Ultraino: An Open Phased-Array System for Narrowband Airborne Ultrasound Transmission. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2018, 65, 102-111.	3.0	101
24	Surface reconstruction accuracy using ultrasonic arrays: Application to non-destructive testing. NDT and E International, 2018, 96, 26-34.	3.7	31
25	The sizing of small surface-breaking fatigue cracks using ultrasonic arrays. NDT and E International, 2018, 99, 64-71.	3.7	29
26	Nonlinear trapping stiffness of mid-air single-axis acoustic levitators. Applied Physics Letters, 2018, 113, .	3.3	37
27	Dynamic-field devices for the ultrasonic manipulation of microparticles. Lab on A Chip, 2016, 16, 2360-2375.	6.0	115
28	A numerical database for ultrasonic defect characterisation using array data: Robustness and accuracy. NDT and E International, 2016, 83, 94-103.	3.7	4
29	Observation of Orbital Angular Momentum Transfer from Bessel-Shaped Acoustic Vortices to Diphasic Liquid-Microparticle Mixtures. Physical Review Letters, 2015, 114, 214301.	7.8	130
30	Novel ray-tracing algorithms in NDE: Application of Dijkstra and AÃ algorithms to the inspection of an anisotropic weld. NDT and E International, 2014, 61, 58-66.	3.7	31
31	A comparison between ultrasonic array beamforming and super resolution imaging algorithms for non-destructive evaluation. Ultrasonics, 2014, 54, 1842-1850.	3.9	103
32	Detection of Fibre Waviness Using Ultrasonic Array Scattering Data. Journal of Nondestructive Evaluation, 2013, 32, 215-227.	2.4	35
33	The Use of Ultrasonic Arrays to Characterize Crack-Like Defects. Journal of Nondestructive Evaluation, 2010, 29, 222-232.	2.4	67
34	Measurement of the ultrasonic nonlinearity of kissing bonds in adhesive joints. NDT and E International, 2009, 42, 459-466.	3.7	149
35	Thin oil-film thickness distribution measurement using ultrasonic arrays. NDT and E International, 2008, 41, 596-601.	3.7	7
36	Advanced post-processing for scanned ultrasonic arrays: Application to defect detection and classification in non-destructive evaluation. Ultrasonics, 2008, 48, 636-642.	3.9	110

#	ARTICLE	IF	CITATIONS
37	The interaction of oblique incidence ultrasound with rough, partially contacting interfaces. NDT and E International, 2006, 21, 109-121.	2.1	25
38	Post-processing of the full matrix of ultrasonic transmit/receive array data for non-destructive evaluation. NDT and E International, 2005, 38, 701-711.	3.7	754
39	Dry-coupled low-frequency ultrasonic wheel probes: application to adhesive bond inspection. NDT and E International, 2003, 36, 27-36.	3.7	19
40	The measurement of $A_{[sub 0]}$ and $S_{[sub 0]}$ Lamb wave attenuation to determine the normal and shear stiffnesses of a compressively loaded interface. Journal of the Acoustical Society of America, 2003, 113, 3161.	1.1	45
41	Title is missing!. Journal of Nondestructive Evaluation, 2002, 21, 95-104.	2.4	45