Alexander Velichko

List of Publications by Year
in descending order

24	518	759233 12	677142 22
papers	citations	h-index	g-index

24	24	24	300
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A generalized approach for efficient finite element modeling of elastodynamic scattering in two and three dimensions. Journal of the Acoustical Society of America, 2010, 128, 1004-1014.	1.1	74
2	Guided wave arrays for high resolution inspection. Journal of the Acoustical Society of America, 2008, 123, 186-196.	1.1	57
3	Excitation and scattering of guided waves: Relationships between solutions for plates and pipes. Journal of the Acoustical Society of America, 2009, 125, 3623-3631.	1.1	54
4	An analytical comparison of ultrasonic array imaging algorithms. Journal of the Acoustical Society of America, 2010, 127, 2377-2384.	1.1	54
5	Ultrasonic characterization of crack-like defects using scattering matrix similarity metrics. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2015, 62, 545-559.	3.0	44
6	Reversible back-propagation imaging algorithm for postprocessing of ultrasonic array data. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2009, 56, 2492-2503.	3.0	35
7	Plane Wave Imaging Techniques for Immersion Testing of Components With Nonplanar Surfaces. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2020, 67, 1303-1316.	3.0	28
8	3-D reconstruction of sub-wavelength scatterers from the measurement of scattered fields in elastic waveguides. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2014, 61, 1864-1879.	3.0	21
9	Characterization of defects using ultrasonic arrays: a dynamic classifier approach. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2015, 62, 2146-2160.	3.0	21
10	Combining Simulated and Experimental Data to Simulate Ultrasonic Array Data From Defects in Materials With High Structural Noise. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 2198-2206.	3.0	17
11	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
12	Post-processing of guided wave array data for high resolution pipe inspection. Journal of the Acoustical Society of America, 2009, 126, 2973-2982.	1.1	14
13	Ultrasonic defect characterisationâ€"Use of amplitude, phase, and frequency information. Journal of the Acoustical Society of America, 2018, 143, 349-360.	1.1	12
14	Strategies for data acquisition using ultrasonic phased arrays. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2018, 474, 20180451.	2.1	12
15	Local scattering ultrasound imaging. Scientific Reports, 2021, 11, 993.	3.3	11
16	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
17	The effect of distortion models on characterisation of real defects using ultrasonic arrays. NDT and E International, 2020, 113, 102263.	3.7	9
18	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

#	Article	IF	Citations
19	Angular and frequency behaviour of elastodynamic scattering from embedded scatterers. Ultrasonics, 2019, 99, 105964.	3.9	6
20	Establishing the Limits of Validity of the Superposition of Experimental and Analytical Ultrasonic Responses for Simulating Imaging Data. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2019, 66, 101-108.	3.0	6
21	Quantification of the Effect of Multiple Scattering on Array Imaging Performance. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2020, 67, 92-105.	3.0	6
22	Optimal Extraction of Ultrasonic Scattering Features in Coarse Grained Materials. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 2238-2250.	3.0	3
23	Near-field model of ultrasonic array data. AIP Conference Proceedings, 2017, , .	0.4	0
24	Detection and characterisation of defects in highly scattering materials using ultrasonic arrays. , 2019, , .		0