Vladislav V Aleshin

List of Publications by Year
in descending order

37 papers	540 citations	687363 13 h-index	642732 23 g-index
39 all docs	39 docs citations	39 times ranked	304 citing authors

#	Article	IF	Citations
1	Qualitative analysis of a 3D multiphysics model for nonlinear ultrasonics and vibration induced heating at closed defects. Research in Nondestructive Evaluation, 2022, 33, 17-32.	1.1	1
2	Friction-induced energy losses in mechanical contacts subject to random vibrations. International Journal of Solids and Structures, 2020, 190, 148-155.	2.7	3
3	Local damage detection by nonlinear coda wave interferometry combined with time reversal. Ultrasonics, 2020, 108, 106226.	3.9	16
4	On Applications of Semi-Analytical Methods of Contact Mechanics. Frontiers in Mechanical Engineering, 2020, 6, .	1.8	2
5	3D modeling for acoustic waves and vibrations in solid structures with frictional cracks. Proceedings of Meetings on Acoustics, 2019, , .	0.3	0
6	Theoretical calculation of the instantaneous friction-induced energy losses in arbitrarily excited axisymmetric mechanical contact systems. International Journal of Solids and Structures, 2019, 158, 268-276.	2.7	13
7	Preisach description for solids with frictional cracks. International Journal of Non-Linear Mechanics, 2018, 104, 28-38.	2.6	3
8	Two dimensional modeling of elastic wave propagation in solids containing cracks with rough surfaces and friction â€" Part II: Numerical implementation. Ultrasonics, 2018, 82, 19-30.	3.9	39
9	Two dimensional modeling of elastic wave propagation in solids containing cracks with rough surfaces and friction â€" Part I: Theoretical background. Ultrasonics, 2018, 82, 11-18.	3.9	32
10	Explosive Instability of Gravity-Capillary Waves under Ultrasound Radiation Pressure. Physics of Wave Phenomena, 2018, 26, 234-242.	1.1	5
11	Resonance of Feshbach-type and explosive instability of magnetoelastic waves in solids. Wave Motion, 2018, 81, 15-24.	2.0	5
12	Simulation Study of the Localization of a Near-Surface Crack Using an Air-Coupled Ultrasonic Sensor Array. Sensors, 2017, 17, 930.	3.8	7
13	Solution to the frictional contact problem via the method of memory diagrams for general 3D loading histories. Physical Mesomechanics, 2016, 19, 130-135.	1.9	6
14	Method of memory diagrams for mechanical frictional contacts subject to arbitrary 2D loading. International Journal of Solids and Structures, 2015, 60-61, 84-95.	2.7	21
15	Shift and torsion contact problems for arbitrary axisymmetric normal stress distributions. International Journal of Solids and Structures, 2013, 50, 2894-2900.	2.7	7
16	General solution to the Hertzâ€"Mindlin problem via Preisach formalism. International Journal of Non-Linear Mechanics, 2013, 49, 15-30.	2.6	12
17	Frictional contact of two spheres for arbitrary 2D loading: memory diagrams and Preisach analysis. Proceedings of Meetings on Acoustics, 2013, , .	0.3	0
18	General solutions to the mechanical contact problem. Proceedings of Meetings on Acoustics, 2012, , .	0.3	1

#	Article	IF	Citations
19	Modeling nonlinear response from distributed damage and kissing bonds. Proceedings of Meetings on Acoustics, 2012, , .	0.3	3
20	Hertzâ€"Mindlin problem for arbitrary oblique 2D loading: General solution by memory diagrams. Journal of the Mechanics and Physics of Solids, 2012, 60, 14-36.	4.8	21
21	Modeling of acoustic penetration into sandy sediments: Physical and geometrical aspects. Journal of the Acoustical Society of America, 2009, 126, 2206-2214.	1.1	4
22	Preisach analysis of the Hertzâ€"Mindlin system. Journal of the Mechanics and Physics of Solids, 2009, 57, 657-672.	4.8	26
23	Characterization of hysteretic stressâ€"strain behavior using the integrated Preisach density. International Journal of Non-Linear Mechanics, 2008, 43, 151-163.	2.6	5
24	Acoustic Probing of the Jamming Transition in an Unconsolidated Granular Medium. Physical Review Letters, 2008, 100, 158003.	7.8	47
25	Reflection of Nonlinear Acoustic Waves from the Mechanically Free Surface of an Unconsolidated Granular Medium. Acta Acustica United With Acustica, 2008, 94, 215-228.	0.8	6
26	Acoustic modes propagating along the free surface of granular media. Journal of the Acoustical Society of America, 2007, 121, 2600-2611.	1.1	31
27	Microcontact-based theory for acoustics in microdamaged materials. Journal of the Mechanics and Physics of Solids, 2007, 55, 366-390.	4.8	49
28	Friction in unconforming grain contacts as a mechanism for tensorial stressâ€"strain hysteresis. Journal of the Mechanics and Physics of Solids, 2007, 55, 765-787.	4.8	27
29	Physical constitutive equations for nonlinear acoustics of materials with internal contacts. AIP Conference Proceedings, 2006, , .	0.4	1
30	Acoustic Waves in an Elastic Channel near the Free Surface of Granular Media. Physical Review Letters, 2006, 96, 214301.	7.8	33
31	Micro-potential model for stress?strain hysteresis of micro-cracked materials. Journal of the Mechanics and Physics of Solids, 2005, 53, 795-824.	4.8	31
32	PROPAGATION OF ACOUSTICS WAVES OF NONSIMPLEX FORM IN A MATERIAL WITH HYSTERETIC QUADRATIC NONLINEARITY: ANALYSIS AND NUMERICAL SIMULATIONS. Journal of Computational Acoustics, 2004, 12, 319-354.	1.0	12
33	Resonant bar simulations in media with localized damage. Ultrasonics, 2004, 42, 1017-1024.	3.9	36
34	Propagation of initially bi-harmonic sound waves in a 1D semi-infinite medium with hysteretic non-linearity. Ultrasonics, 2004, 42, 1053-1059.	3.9	11
35	Strain wave evolution equation for nonlinear propagation in materials with mesoscopic mechanical elements. Journal of the Acoustical Society of America, 2002, 112, 2666-2679.	1.1	22
36	Inspection of inhomogeneous samples by combined laterally scanned and frequency resolved photothermal measurements. Journal of Applied Physics, 1999, 86, 6512-6518.	2.5	0

#	ARTICLE	IF	CITATIONS
37	Continued fraction method in inverse problem of photothermal diagnostics. Applied Physics A: Materials Science and Processing, 1997, 64, 579-582.	2.3	1