Arkadi Berezovski

List of Publications by Year
in descending order

95 papers	1,429 citations	331538 21 h-index	345118 36 g-index
105 all docs	105 docs citations	105 times ranked	538 citing authors

#	Article	IF	Citations
1	Internal Variables as a Tool for Extending Navier-Stokes Equations. Journal of Non-Equilibrium Thermodynamics, 2022, .	2.4	1
2	A two-layer elastic strip under transverse impact loading: Analytical solution, finite element, and finite volume simulations. Mathematics and Computers in Simulation, 2021, 189, 126-140.	2.4	1
3	Heat conduction in microstructured solids under localised pulse loading. Continuum Mechanics and Thermodynamics, 2021, 33, 2493-2507.	1.4	2
4	Experimental, analytical, and numerical study of transient elastic waves from a localized source in an aluminium strip. Applied Acoustics, 2021, 178, 107983.	1.7	1
5	Dynamics of discontinuities in elastic solids. Mathematics and Mechanics of Solids, 2020, 25, 1416-1428.	1.5	1
6	On the wave dispersion in microstructured solids. Continuum Mechanics and Thermodynamics, 2020, 32, 569-588.	1.4	32
7	Elastic Waves in Microstructured Solids. , 2020, , 830-837.		1
8	Discontinuity-driven mesh alignment for evolving discontinuities in elastic solids. Journal of Computational Physics, 2020, 416, 109542.	1.9	0
9	Internal variables representation of generalized heat equations. Continuum Mechanics and Thermodynamics, 2019, 31, 1733-1741.	1.4	11
10	An Explicit Finite Volume Numerical Scheme for 2D Elastic Wave Propagation. Mathematics of Planet Earth, 2019, , 257-280.	0.1	1
11	ON COMPUTING OF PULSE PROPAGATION AND REFLECTION IN 2D ELASTIC WAVEGUIDE. , 2019, , .		0
12	Elastic Waves in Microstructured Solids. , 2018, , 1-7.		0
13	On Nonlinear Waves in Media with Complex Properties. Advanced Structured Materials, 2018, , 275-286.	0.3	2
14	Internal variables associated with microstructures in solids. Mechanics Research Communications, 2018, 93, 30-34.	1.0	3
15	Full field computing for elastic pulse dispersion in inhomogeneous bars. Composite Structures, 2018, 204, 388-394.	3.1	4
16	B-spline based finite element method in one-dimensional discontinuous elastic wave propagation. Applied Mathematical Modelling, 2017, 46, 382-395.	2.2	11
17	Numerical simulation of acoustic emission during crack growth in 3-point bending test. Structural Control and Health Monitoring, 2017, 24, e1996.	1.9	5
18	Instead of Introduction. Solid Mechanics and Its Applications, 2017, , 1-18.	0.1	1

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19	One-Dimensional Thermoelasticity with Dual Internal Variables. Solid Mechanics and Its Applications, 2017, , 147-162.	0.1	0
20	Internal Variables and Microinertia. Solid Mechanics and Its Applications, 2017, , 75-84.	0.1	1
21	Heat Conduction in Microstructured Solids. Solid Mechanics and Its Applications, 2017, , 131-145.	0.1	0
22	Microdeformation and Microtemperature. Solid Mechanics and Its Applications, 2017, , 175-190.	0.1	1
23	Thermomechanical Single Internal Variable Theory. Solid Mechanics and Its Applications, 2017, , 35-58.	0.1	0
24	Dual Internal VariablesDual internal variables. Solid Mechanics and Its Applications, 2017, , 59-72.	0.1	0
25	Dispersive Elastic Waves. Solid Mechanics and Its Applications, 2017, , 85-98.	0.1	0
26	One-Dimensional Microelasticity. Solid Mechanics and Its Applications, 2017, , 99-111.	0.1	0
27	Influence of Nonlinearity. Solid Mechanics and Its Applications, 2017, , 113-120.	0.1	0
28	The Role of Heterogeneity in Heat Pulse Propagation in a Solid with Inner Structure. Solid Mechanics and Its Applications, 2017, , 123-130.	0.1	0
29	Guyer-Krumhanslâ€"type heat conduction at room temperature. Europhysics Letters, 2017, 118, 50005.	0.7	62
30	On the Mindlin microelasticity in one dimension. Mechanics Research Communications, 2016, 77, 60-64.	1.0	3
31	On the influence of microstructure on heat conduction in solids. International Journal of Heat and Mass Transfer, 2016, 103, 516-520.	2.5	7
32	Microinertia and internal variables. Continuum Mechanics and Thermodynamics, 2016, 28, 1027-1037.	1.4	6
33	Interfaces in micromorphic materials: Wave transmission and reflection with numerical simulations. Mathematics and Mechanics of Solids, 2016, 21, 37-51.	1.5	47
34	Thermoelastic Waves in Microstructured Solids. , 2016, , 137-150.		0
35	Single slit diffraction: From optics to elasticity. Wave Motion, 2016, 60, 35-45.	1.0	1
36	Reflections on mathematical models of deformation waves in elastic microstructured solids. Mathematics and Mechanics of Complex Systems, 2015, 3, 43-82.	0.5	43

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37	Nonlinear dispersive wave equations for microstructured solids. Proceedings of the Estonian Academy of Sciences, 2015, 64, 203.	0.9	3
38	Pattern formation of elastic waves and energy localization due to elastic gratings. International Journal of Mechanical Sciences, 2015, 101-102, 137-144.	3.6	2
39	Thermodynamic approach to generalized continua. Continuum Mechanics and Thermodynamics, 2014, 26, 403-420.	1.4	21
40	Weakly nonlocal thermoelasticity for microstructured solids: microdeformation and microtemperature. Archive of Applied Mechanics, 2014, 84, 1249-1261.	1.2	24
41	Elastic wave Talbot effect in solids with inclusions. Mechanics Research Communications, 2014, 60, 21-26.	1.0	7
42	Influence of microstructure on thermoelastic wave propagation. Acta Mechanica, 2013, 224, 2623-2633.	1.1	17
43	Dispersive waves in microstructured solids. International Journal of Solids and Structures, 2013, 50, 1981-1990.	1.3	58
44	Thermoelastic waves in microstructured solids: Dual internal variables approach. Journal of Coupled Systems and Multiscale Dynamics, 2013, 1, 112-119.	0.2	14
45	On modelling of wave propagation in microstructured solids. Estonian Journal of Engineering, 2013, 19, 171.	0.3	2
46	Internal structures and internal variables in solids. Journal of Mechanics of Materials and Structures, 2012, 7, 983-996.	0.4	18
47	On the stability of a microstructure model. Computational Materials Science, 2012, 52, 193-196.	1.4	2
48	Thermoelasticity with Dual Internal Variables. Journal of Thermal Stresses, 2011, 34, 413-430.	1.1	29
49	Generalized thermomechanics with dual internal variables. Archive of Applied Mechanics, 2011, 81, 229-240.	1.2	66
50	Waves in microstructured solids: a unified viewpoint of modeling. Acta Mechanica, 2011, 220, 349-363.	1.1	53
51	TWO-SCALE MICROSTRUCTURE DYNAMICS. Journal of Multiscale Modeling, 2011, 03, 177-188.	1.0	1
52	Dispersive Wave Equations for Solids with Microstructure. Springer Proceedings in Physics, 2011, , 699-705.	0.1	1
53	Jump conditions and kinetic relations at moving discontinuities. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2010, 90, 537-543.	0.9	4
54	Numerical Simulations of One-dimensional Microstructure Dynamics. AIP Conference Proceedings, 2010, , .	0.3	3

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55	Multiscale modeling of microstructured solids. Mechanics Research Communications, 2010, 37, 531-534.	1.0	31
56	EDITORIAL. Special issue devoted to the International Conference on Complexity of Nonlinear Waves. Highlights in the research into complexity of nonlinear waves. Proceedings of the Estonian Academy of Sciences, 2010, 59, 61.	0.9	9
57	Waves in materials with microstructure: numerical simulation. Proceedings of the Estonian Academy of Sciences, 2010, 59, 99.	0.9	6
58	On wave propagation in laminates with two substructures. Estonian Journal of Engineering, 2010, 16, 228.	0.3	2
59	Deformation Waves in Microstructured Materials: Theory and Numerics. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2010, , 19-29.	0.1	0
60	On the Propagation of Singular Surfaces in Thermoelasticity. Journal of Thermal Stresses, 2009, 32, 557-592.	1.1	7
61	One-Dimensional Microstructure Dynamics. Lecture Notes in Applied and Computational Mechanics, 2009, , 21-28.	2.0	13
62	Waves in Inhomogeneous Solids. , 2009, , 55-81.		6
63	Internal Variables and Generalized Continuum Theories. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2009, , 149-158.	0.1	8
64	Internal Variables and Scale Separation in Dynamics of Microstructured Solids. IUTAM Symposium on Cellular, Molecular and Tissue Mechanics, 2009, , 69-80.	0.1	0
65	Internal Variables and Dynamic Degrees of Freedom. Journal of Non-Equilibrium Thermodynamics, 2008, 33, .	2.4	70
66	Influence of geometry and loading conditions on the dynamics of martensitic fronts. Smart Structures and Systems, 2008, 4, 123-135.	1.9	3
67	SOLITARY WAVES IN DISPERSIVE MATERIALS. , 2008, , .		0
68	Nonlinear deformation waves in solids and dispersion. Wave Motion, 2007, 44, 493-500.	1.0	32
69	On the propagation velocity of a straight brittle crack. International Journal of Fracture, 2007, 143, 135-142.	1.1	16
70	Moving singularities in thermoelastic solids. International Journal of Fracture, 2007, 147, 191-198.	1.1	9
71	Numerical simulation of nonlinear elastic wave propagation in piecewise homogeneous media. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 418, 364-369.	2.6	21
72	DEFORMATION WAVES IN MICROSTRUCTURED SOLIDS AND DISPERSION. , 2006, , .		0

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73	Modeling and Numerical Simulation of Nonclassical Effects of Waves, Including Phase Transition Front. , 2006, , 203-219.		1
74	Hierarchies of Waves in Nonclassical Materials. , 2006, , 29-47.		21
75	Numerical Simulation of Phase-Transition Front Propagation in Thermoelastic Solids. , 2006, , 703-711.		2
76	Driving Force in Simulation of Phase Transition Front Propagation. , 2005, , 289-297.		1
77	Stress-induced phase-transition front propagation in thermoelastic solids. European Journal of Mechanics, A/Solids, 2005, 24, 1-21.	2.1	22
78	On the velocity of a moving phase boundary in solids. Acta Mechanica, 2005, 179, 187-196.	1.1	16
79	Waves in microstructured materials and dispersion. Philosophical Magazine, 2005, 85, 4127-4141.	0.7	130
80	On the thermodynamic conditions at moving phase-transition fronts in thermoelastic solids. Journal of Non-Equilibrium Thermodynamics, 2004, 29, .	2.4	17
81	Thermodynamic interaction between two discrete systems in non-equilibrium. Journal of Non-Equilibrium Thermodynamics, 2004, 29, .	2.4	29
82	Numerical simulation of two-dimensional wave propagation in functionally graded materials. European Journal of Mechanics, A/Solids, 2003, 22, 257-265.	2.1	88
83	Simulation of wave and front propagation in thermoelastic materials with phase transformation. Computational Materials Science, 2003, 28, 478-485.	1.4	4
84	Dynamics of impact-induced phase transition fronts. European Physical Journal Special Topics, 2003, 112, 167-170.	0.2	0
85	Numerical Simulation of Thermoelastic Wave and Phase-Transition Front Propagation. , 2003, , 759-764.		1
86	THERMOELASTIC WAVE AND FRONT PROPAGATION. Journal of Thermal Stresses, 2002, 25, 719-743.	1.1	23
87	A Thermodynamic Approach to Modeling of Stress-Induced Phase-Transition Front Propagation in Solids. Solid Mechanics and Its Applications, 2002, , 19-26.	0.1	4
88	Application of Wave-Propagation Algorithm to Two-Dimensional Thermoelastic Wave Propagation in Inhomogeneous Media. , 2001, , 109-116.		1
89	Simulation of Thermoelastic Wave Propagation by Means of a Composite Wave-Propagation Algorithm. Journal of Computational Physics, 2001, 168, 249-264.	1.9	50
90	Thermoelastic wave propagation in inhomogeneous media. Archive of Applied Mechanics, 2000, 70, 694-706.	1.2	35

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91	MATERIAL FORMULATION OF FINITE-STRAIN THERMOELASTICITY AND APPLICATIONS. Journal of Thermal Stresses, 1999, 22, 421-449.	1.1	18
92	Simulation of non‐linear heat conduction by means of thermodynamics‐based algorithm. International Journal of Numerical Methods for Heat and Fluid Flow, 1997, 7, 711-721.	1.6	3
93	Rising vortex ring in a viscous fluid. Fluid Dynamics, 1989, 24, 361-366.	0.2	1
94	Laminar free convection from a vertical plate. International Journal of Heat and Mass Transfer, 1984, 27, 869-881.	2.5	46
95	Method of singular perturbations in the problem of free convection with constant heat flux on a vertical surface. Fluid Dynamics, 1977, 12, 271-277.	0.2	2