## Sergey A Lurie

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Interphase layer theory and application in the mechanics of composite materials. Journal of Materials Science, 2006, 41, 6693-6707.	1.7	50
2	Nanomechanical modeling of the nanostructures and dispersed composites. Computational Materials Science, 2003, 28, 529-539.	1.4	49
3	Advanced theoretical and numerical multiscale modeling of cohesion/adhesion interactions in continuum mechanics and its applications for filled nanocomposites. Computational Materials Science, 2009, 45, 709-714.	1.4	46
4	Eshelby's inclusion problem in the gradient theory of elasticity: Applications to composite materials. International Journal of Engineering Science, 2011, 49, 1517-1525.	2.7	45
5	Revisiting bending theories of elastic gradient beams. International Journal of Engineering Science, 2018, 126, 1-21.	2.7	40
6	Design of the corrugated-core sandwich panel for the arctic rescue vehicle. Composite Structures, 2017, 160, 1007-1019.	3.1	34
7	Multiscale modelling of aluminium-based metal–matrix composites with oxide nanoinclusions. Computational Materials Science, 2016, 116, 62-73.	1.4	33
8	Loss Amplification Effect in Multiphase Materials with Viscoelastic Interfaces. Macromolecules, 2009, 42, 5372-5377.	2.2	32
9	Mechanical behavior of porous Si3N4 ceramics manufactured with 3D printing technology. Journal of Materials Science, 2018, 53, 4796-4805.	1.7	32
10	On the well posedness of static boundary value problem within the linear dilatational strain gradient elasticity. Zeitschrift Fur Angewandte Mathematik Und Physik, 2020, 71, 1.	0.7	29
11	Symmetry conditions in strain gradient elasticity. Mathematics and Mechanics of Solids, 2017, 22, 683-691.	1.5	27
12	Comparison between the Mori-Tanaka and generalized self-consistent methods in the framework of anti-plane strain inclusion problem in strain gradient elasticity. Mechanics of Materials, 2018, 122, 133-144.	1.7	27
13	Application of generalized self-consistent method to predict effective elastic properties of bristled fiber composites. Composites Part B: Engineering, 2014, 61, 26-40.	5.9	26
14	Cohesion field: Barenblatt's hypothesis as formal corollary of theory of continuous media with conserved dislocations. International Journal of Fracture, 2008, 150, 181-194.	1.1	25
15	Gradient effects in fracture mechanics for nano-structured materials. Engineering Fracture Mechanics, 2014, 130, 3-11.	2.0	25
16	Three-phase model of particulate composites in second gradient elasticity. European Journal of Mechanics, A/Solids, 2019, 78, 103853.	2.1	25
17	Electric field, strain and inertia gradient effects on anti-plane wave propagation in piezoelectric materials. Journal of Sound and Vibration, 2021, 494, 115898.	2.1	24
18	Continuum micro-dilatation modeling of auxetic metamaterials. International Journal of Solids and Structures, 2018, 132-133, 188-200.	1.3	23

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19	On Refined Theories of Beams, Plates, and Shells. Journal of Composite Materials, 1992, 26, 546-557.	1.2	21
20	Strainâ€Gradient Elasticity for Bridging Continuum and Atomistic Estimates of Stiffness of Binary Lennardâ€Jones Crystals. Advanced Engineering Materials, 2010, 12, 529-533.	1.6	21
21	Exact solution of Eshelby–Christensen problem in gradient elasticity for composites with spherical inclusions. Acta Mechanica, 2016, 227, 127-138.	1.1	21
22	On the formulation of elastic and electroelastic gradient beam theories. Continuum Mechanics and Thermodynamics, 2019, 31, 1601-1613.	1.4	21
23	On a combined thermal/mechanical performance of a foam-filled sandwich panels. International Journal of Engineering Science, 2019, 134, 66-76.	2.7	21
24	On the dependence of standard and gradient elastic material constants on a field of defects. Mathematics and Mechanics of Solids, 2020, 25, 35-45.	1.5	21
25	Generalized theory of elasticity. Mechanics of Solids, 2015, 50, 379-388.	0.3	20
26	Numerical predictions for the effective size-dependent properties of piezoelectric composites with spherical inclusions. Composite Structures, 2018, 202, 1099-1108.	3.1	20
27	Design of the corrugated-core sandwich panel with external active cooling system. Composite Structures, 2018, 188, 278-286.	3.1	18
28	On the elastic wedge problem within simplified and incomplete strain gradient elasticity theories. International Journal of Solids and Structures, 2022, 239-240, 111433.	1.3	18
29	General theory of continuous media with conserved dislocations. International Journal of Solids and Structures, 2007, 44, 7468-7485.	1.3	17
30	On Remarkable Loss Amplification Mechanism in Fiber Reinforced Laminated Composite Materials. Applied Composite Materials, 2014, 21, 179-196.	1.3	17
31	Modeling the effective mechanical properties of "fuzzy fiber―composites across scales length. Composites Part B: Engineering, 2018, 142, 24-35.	5.9	17
32	On the nature of the relaxation time, the Maxwell–Cattaneo and Fourier law in the thermodynamics of a continuous medium, and the scale effects in thermal conductivity. Continuum Mechanics and Thermodynamics, 2020, 32, 709-728.	1.4	17
33	Bending problems in the theory of elastic materials with voids and surface effects. Mathematics and Mechanics of Solids, 2018, 23, 787-804.	1.5	16
34	Radial multipliers in solutions of the Helmholtz equations. Integral Transforms and Special Functions, 2019, 30, 254-263.	0.8	16
35	New approach to failure of pre-cracked brittle materials based on regularized solutions of strain gradient elasticity. Engineering Fracture Mechanics, 2021, 258, 108080.	2.0	16
36	Calculation of deformations in nanocomposites using the block multipole method with the analytical-numerical account of the scale effects. Computational Mathematics and Mathematical Physics, 2006, 46, 1234-1253.	0.2	15

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37	Numerical modeling of a composite auxetic metamaterials using micro-dilatation theory. Continuum Mechanics and Thermodynamics, 2019, 31, 1099-1107.	1.4	15
38	Dilatation gradient elasticity theory. European Journal of Mechanics, A/Solids, 2021, 88, 104258.	2.1	15
39	Influence of mean distance between fibers on the effective gas thermal conductivity in highly porous fibrous materials. International Journal of Heat and Mass Transfer, 2017, 109, 511-519.	2.5	13
40	Anti-plane inclusion problem in the second gradient electroelasticity theory. International Journal of Engineering Science, 2019, 144, 103129.	2.7	13
41	Elasto-plastic behavior and failure of thick GLARE laminates under bending loading. Composites Part B: Engineering, 2020, 200, 108302.	5.9	13
42	Trefftz collocation method for twoâ€dimensional strain gradient elasticity. International Journal for Numerical Methods in Engineering, 2021, 122, 823-839.	1.5	13
43	A continuum model of microheterogeneous media. Prikladnaya Matematika I Mekhanika, 2009, 73, 599-608.	0.4	12
44	Estimation of the Strength of Plates with Cracks Based on the Maximum Stress Criterion in a Scale-Dependent Generalized Theory of Elasticity. Physical Mesomechanics, 2019, 22, 456-462.	1.0	12
45	Optimal Damping Behavior of a Composite Sandwich Beam Reinforced with Coated Fibers. Applied Composite Materials, 2019, 26, 389-408.	1.3	12
46	Mechanical properties of a metallic composite material based on an aluminum alloy reinforced by dispersed silicon carbide particles. Russian Metallurgy (Metally), 2015, 2015, 790-794.	0.1	11
47	On correct nonlocal generalized theories of elasticity. Physical Mesomechanics, 2016, 19, 269-281.	1.0	11
48	Identification of gradient elasticity parameters based on interatomic interaction potentials accounting for modified Lorentz-Berthelot rules. Physical Mesomechanics, 2017, 20, 392-398.	1.0	11
49	On the Flamant problem for a half-plane loaded with a concentrated force. Acta Mechanica, 2021, 232, 1761-1771.	1.1	10
50	The application of the multiscale models for description of the dispersed composites. Composites Part A: Applied Science and Manufacturing, 2005, 36, 145-152.	3.8	9
51	General theory of defects in continuous media. International Journal of Solids and Structures, 2006, 43, 91-111.	1.3	9
52	WAVE-RELAXATION DUALITY OF HEAT PROPAGATION IN FERMI–PASTA–ULAM CHAINS. Modern Physics Letters B, 2012, 26, 1250145.	1.0	9
53	New solution of the plane problem for an equilibrium crack. Mechanics of Solids, 2016, 51, 557-561.	0.3	9
54	New Solution of Axisymmetric Contact Problem of Elasticity. Mechanics of Solids, 2017, 52, 479-487.	0.3	8

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55	Pure bending of a piezoelectric layer in second gradient electroelasticity theory. Acta Mechanica, 2019, 230, 4197-4211.	1.1	8
56	Generalized Einstein's and Brinkman's solutions for the effective viscosity of nanofluids. Journal of Applied Physics, 2020, 128, .	1.1	8
57	Multiscale Modeling in the Mechanics of Materials: Cohesion, Interfacial Interactions, Inclusions and Defects. Lecture Notes in Applied and Computational Mechanics, 2003, , 101-110.	2.0	8
58	Ideal nonsymmetric 4D-medium as a model of invertible dynamic thermoelasticity. Mechanics of Solids, 2012, 47, 580-590.	0.3	7
59	Solution of the Eshelby problem in gradient elasticity for multilayer spherical inclusions. Mechanics of Solids, 2016, 51, 161-176.	0.3	7
60	Nonlocal Solutions to Singular Problems of Mathematical Physics and Mechanics. Mechanics of Solids, 2018, 53, 135-144.	0.3	7
61	On the Generalized Heat Conduction Laws in the Reversible Thermodynamics of a Continuous Medium. Doklady Physics, 2018, 63, 503-507.	0.2	7
62	On the Radial Multipliers Method in the Gradient Elastic Fracture Mechanics. Lobachevskii Journal of Mathematics, 2019, 40, 984-991.	0.1	7
63	Application of optimization methods for finding equilibrium states of two-dimensional crystals. Computational Mathematics and Mathematical Physics, 2016, 56, 2001-2010.	0.2	6
64	Generalized solution of the problem on a circular membrane loaded by a lumped force. Mechanics of Solids, 2016, 51, 334-338.	0.3	6
65	From Generalized Theories of Media with Fields of Defects to Closed Variational Models of the Coupled Gradient Thermoelasticity and Thermal Conductivity. Advanced Structured Materials, 2019, , 135-154.	0.3	6
66	Eshelby integral formulas in gradient elasticity. Mechanics of Solids, 2010, 45, 648-656.	0.3	5
67	On the solution singularity in the plane elasticity problem for a cantilever strip. Mechanics of Solids, 2013, 48, 388-396.	0.3	5
68	Intermediate layer formation between inclusion and matrix during synthesis of unidirectional fibrous composite. , 2014, , .		5
69	Classification of Gradient Adhesion Theories Across Length Scale. Advanced Structured Materials, 2016, , 261-277.	0.3	5
70	A New Approach to Non-Singular Plane Cracks Theory in Gradient Elasticity. Mathematical and Computational Applications, 2019, 24, 93.	0.7	5
71	Variational Formulation of Linear Equations of Coupled Thermohydrodynamics and Heat Conductivity. Lobachevskii Journal of Mathematics, 2020, 41, 1949-1963.	0.1	5
72	Simulation of the mechanical properties of nanostructured porous ceramics. Russian Metallurgy (Metally), 2013, 2013, 272-281.	0.1	4

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73	Estimation of effective dynamic properties of bristled fiber composite materials based on a self-consistent Eshelby method. Journal of Engineering Mathematics, 2015, 95, 7-29.	0.6	4
74	Microstructure and mechanical properties of silicon carbide ceramics reinforced with multi-walled carbon nanotubes. IOP Conference Series: Materials Science and Engineering, 2016, 124, 012142.	0.3	4
75	Green Tensor and Solution of the Boussinesq Problem in the Generalized Theory of Elasticity. Mechanics of Solids, 2018, 53, 440-453.	0.3	4
76	Semi-Inverse Solution of a Pure Beam Bending Problem in Gradient Elasticity Theory: The Absence of Scale Effects. Doklady Physics, 2018, 63, 161-164.	0.2	4
77	On Variation Models of the Irreversible Processes in Mechanics of Solids and Generalized Hydrodynamics. Lobachevskii Journal of Mathematics, 2019, 40, 896-910.	0.1	4
78	Impact behavior of a stiffened shell structure with optimized GFRP corrugated sandwich panel skins. Composite Structures, 2020, 248, 112479.	3.1	4
79	NEW SOLUTION TO THE PROBLEM OF A CRACK IN AN ORTHOTROPIC PLATE UNDER TENSION. Mechanics of Solids, 2021, 56, 902-910.	0.3	4
80	Coupled problems of gradient thermoelasticity for periodic structures. Archive of Applied Mechanics, 2023, 93, 23-39.	1.2	4
81	Gradient models of moving heat sources for powder bed fusion applications. International Journal of Heat and Mass Transfer, 2022, 196, 123221.	2.5	4
82	A variant of the refined theory of bending for a laminar plastic beam. Polymer Mechanics, 1974, 8, 582-588.	0.1	3
83	Computational mechanics modelling of nanoparticle-reinforced composite materials across the length scales. International Journal of Computational Science and Engineering, 2006, 2, 228.	0.4	3
84	THEORY OF SPACETIME ELASTICITY. International Journal of Modern Physics B, 2012, 26, 1250032.	1.0	3
85	Refined gradient theory of scale-dependent superthin rods. Mechanics of Solids, 2015, 50, 135-146.	0.3	3
86	Scale effects in tribological properties of solid-lubricating composites made of ultra-high molecular weight polyethylene filled with calcium stearate particles. IOP Conference Series: Materials Science and Engineering, 2016, 124, 012035.	0.3	3
87	Modeling of the localy-functional properties of the material damaged by fields of defects. Doklady Physics, 2017, 62, 46-49.	0.2	3
88	Refined Stress Analysis in Applied Elasticity Problems Accounting for Gradient Effects. Doklady Physics, 2019, 64, 482-486.	0.2	3
89	New Method for Studying the Strength of Brittle Bodies with Cracks. Russian Metallurgy (Metally), 2020, 2020, 291-297.	0.1	3
90	Gradient Theory of Media with Conserved Dislocations: Application toÂMicrostructured Materials. Advances in Mechanics and Mathematics, 2010, , 223-232.	0.2	3

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91	Model of Media with Conserved Dislocation. Special Cases: Cosserat Model, Aero-Kuvshinskii Media Model, Porous Media ÂModel. Advanced Structured Materials, 2018, , 215-249.	0.3	3
92	DO NANOSIZED RODS HAVE ABNORMAL MECHANICAL PROPERTIES? ON SOME FALLACIOUS IDEAS AND DIRECT ERRORS RELATED TO THE USE OF THE GRADIENT THEORIES FOR SIMULATION OF SCALE-DEPENDENT RODS. International Journal of Nanomechanics Science and Technology, 2016, 7, 261-295.	0.5	3
93	MODELING THE EFFECTIVE DYNAMIC PROPERTIES OF FIBER COMPOSITES MODIFIED ACROSS LENGTH SCALES. Nanoscience and Technology, 2018, 9, 117-138.	0.6	3
94	On the failure analysis of cracked plates within the strain gradient elasticity in terms of the stress concentration. Procedia Structural Integrity, 2021, 32, 124-130.	0.3	3
95	Investigations on the development of superconducting DC power transmission lines. IEEE Transactions on Magnetics, 1977, 13, 188-191.	1.2	2
96	METHODS FOR PREDICTING EFFECTIVE THERMOELASTIC PROPERTIES OF COMPOSITE CERAMICS REINFORCED WITH CARBON NANOTUBES. International Journal of Nanomechanics Science and Technology, 2012, 3, 141-154.	0.5	2
97	Scale effects in brittle fracture mechanics. Russian Metallurgy (Metally), 2014, 2014, 800-806.	0.1	2
98	IDENTIFICATION OF KINETIC PARAMETERS OF THE MODEL OF INTERPHASE LAYER GROWTH IN A FIBROUS COMPOSITE. Composites: Mechanics, Computations, Applications, 2016, 7, 175-187.	0.2	2
99	New optimization problems arising in modelling of 2D-crystal lattices. AIP Conference Proceedings, 2016, , .	0.3	2
100	On the Problem of Eigenvalues of Material Tensor Objects and Wave Velocities. Lobachevskii Journal of Mathematics, 2019, 40, 992-1009.	0.1	2
101	On Determination of Wave Velocities through the Eigenvalues of Material Objects. Mathematical and Computational Applications, 2019, 24, 39.	0.7	2
102	Mechanistic Model of Generalized Non-antisymmetrical Electrodynamics. Advanced Structured Materials, 2019, , 379-394.	0.3	2
103	Determination of a Load Causing the Appearance of Plastic Deformation in a Tensile Plate with a Crack. Mechanics of Solids, 2020, 55, 490-495.	0.3	2
104	On Structure of Fundamental Solutions for Coupled Thermoelasticity and Thermal Stationary Conductivity Problems. Lobachevskii Journal of Mathematics, 2021, 42, 1841-1851.	0.1	2
105	DESIGNING A MULTILAYER PANEL WITH HEAT-INSULATING FILLER AND HEAT-SHIELDING EXTERNAL COATING. Composites: Mechanics, Computations, Applications, 2016, 7, 135-159.	0.2	2
106	DEFORMATION OF A THIN LAYER THAT IS BONDED TO A MASSIVE SUBSTRATE IN THE THEORY OF THERMOELASTIC MATERIALS WITH VOIDS. International Journal of Nanomechanics Science and Technology, 2014, 5, 33-49.	0.5	2
107	MODELING OF DEGRADATION OF THE COMPOSITE PROPERTIES ON CRACKING AND DELAMINATION WHEN SUBJECTED TO STATIC AND CYCLIC LOADING. Composites: Mechanics, Computations, Applications, 2010, 1, 315-331.	0.2	2
108	MECHANICAL PROPERTIES OF Si3N4-BASED COMPOSITE CERAMICS WITH NANOSIZED POROSITY. Nanoscience and Technology, 2017, 8, 347-357.	0.6	2

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109	On the Paradox of Anomalous Relative Bending Stiffness of Ultrathin Beams in the Gradient Theory of Elasticity. Mechanics of Solids, 2020, 55, 340-347.	0.3	2
110	Stress Concentration Near Stiff Cylindrical Inclusions under Anti-Plane Shear Loading. Doklady Physics, 2020, 65, 390-395.	0.2	2
111	VARIATIONAL FORMULATION OF COUPLED HYDRODYNAMIC PROBLEMS. Journal of Applied Mechanics and Technical Physics, 2021, 62, 828-841.	0.1	2
112	Analytical Solution of Stationary Coupled Thermoelasticity Problem for Inhomogeneous Structures. Mathematics, 2022, 10, 90.	1.1	2
113	Axially symmetrical deformation of an orthotropic layered cylindrical shell. Polymer Mechanics, 1974, 8, 713-719.	0.1	1
114	<title>Special feature of SMA composite materials deformation</title> ., 2000, , .		1
115	Theory of 4D-media with stationary dislocations. Mechanics of Solids, 2008, 43, 545-557.	0.3	1
116	Stress-strain state of the interfacial layer in a visco-composite composite with longitudinal shear. IOP Conference Series: Materials Science and Engineering, 2019, 683, 012036.	0.3	1
117	On Regularization of Singular Solutions of Orthotropic Elasticity Theory. Lobachevskii Journal of Mathematics, 2020, 41, 2023-2033.	0.1	1
118	ESHELBY INTEGRAL FORMULAS IN SECOND GRADIENT ELASTICITY. Nanoscience and Technology, 2020, 11, 99-107.	0.6	1
119	Generalized Brinkman-Type Fluid Model and Coupled Heat Conductivity Problem. Lobachevskii Journal of Mathematics, 2021, 42, 1786-1799.	0.1	1
120	Development of the "Separated Anisotropy―Concept in the Theory of Gradient Anisotropic Elasticity. Mechanics of Composite Materials, 2021, 57, 427-438.	0.9	1
121	Apparent Bending and Tensile Stiffness of Lattice Beams with Triangular and Diamond Structure. Advanced Structured Materials, 2020, , 431-442.	0.3	1
122	Identification method of gradient models parameters of inhomogeneous structures based on discrete atomistic simulations. PNRPU Mechanics Bulletin, 2014, , 89-111.	0.1	1
123	EXPERIMENTAL INVESTIGATION AND MODELING OF THE THERMOCYCLING EFFECT ON THE MECHANICAL PROPERTIES OF THE CFRP. Composites: Mechanics, Computations, Applications, 2015, 6, 279-291.	0.2	1
124	Extended Model of Surface-Related Effects in Second-Gradient Elasticity. Surface Waves Related to the Nature of Adhesion. Advanced Structured Materials, 2020, , 199-219.	0.3	1
125	On the Relations between Direct and Energy Based Homogenization Approaches in Second Gradient Elasticity. Advanced Structured Materials, 2020, , 443-457.	0.3	1
126	Calculation of edge stresses in multilayer composite materials. Mechanics of Composite Materials, 1994, 30, 36-42.	0.9	0

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127	Gradient second-order interphase-layer theory of continuous media with micro-structures. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 2090001-2090002.	0.2	0
128	A Generalized Solution of Eshelby and Eshelby Self-Consistent Method for Gradient Models in Mechanics of Composites. , 2010, , .		0
129	Application of the Nonlocal and Nonlinear Models of Elasticity for Description and Physical Interpretation of Stress-strain State in Vicinity of Singular Points. , 2014, 3, 2086-2091.		0
130	An identification algorithm of model kinetic parameters of the interfacial layer growth in fiber composites. IOP Conference Series: Materials Science and Engineering, 2016, 124, 012071.	0.3	0
131	On the possible of the abnormally high damping effective properties of dispersion-reinforced composites and fibrous composites. Journal of Physics: Conference Series, 2020, 1666, 012029.	0.3	0
132	MODELING OF ANOMALOUS MECHANICAL PROPERTIES OF POLYURETHANE MODIFIED BY CARBON SINGLE-WALL NANOTUBES. International Journal of Nanomechanics Science and Technology, 2011, 2, 71-83.	0.5	0
133	ON ACCOUNT OF SCALE EFFECTS IN THE SIMULATION OF MECHANICAL AND TRIBOLOGICAL PROPERTIES OF TWO-PHASE MICRO- AND NANOMODIFIED POLYMER COATINGS. PNRPU Mechanics Bulletin, 2015, , 36-54.	0.1	0
134	Variational Formulation of Coupled Hydrodynamic Problems. Prikladnaâ Mehanika, TehniÄeskaâ Fizika, 2021, 62, 145-160.	0.0	0
135	On the correctness condition in boundary value problems of gradient elasticity theory. , 2021, , .		0