Alexander B Movchan

List of Publications by Year
in descending order

210 papers	5,306 citations	87888 38 h-index	110387 64 g-index
213 all docs	213 docs citations	213 times ranked	2160 citing authors

#	Article	IF	Citations
1	Broadband Cylindrical Acoustic Cloak for Linear Surface Waves in a Fluid. Physical Review Letters, 2008, 101, 134501.	7.8	314
2	Acoustic metamaterials for sound focusing and confinement. New Journal of Physics, 2007, 9, 399-399.	2.9	264
3	Achieving control of in-plane elastic waves. Applied Physics Letters, 2009, 94, .	3.3	258
4	Vibrations of Lattice Structures and Phononic Band Gaps. Quarterly Journal of Mechanics and Applied Mathematics, 2003, 56, 45-64.	1.3	203
5	Elastic metamaterials with inertial locally resonant structures: Application to lensing and localization. Physical Review B, 2013, 87, .	3.2	170
6	Cloaking bending waves propagating in thin elastic plates. Physical Review B, 2009, 79, .	3.2	126
7	Split-ring resonators and localized modes. Physical Review B, 2004, 70, .	3.2	115
8	Dynamic weight functions for a moving crack. I. Mode I loading. Journal of the Mechanics and Physics of Solids, 1995, 43, 319-341.	4.8	108
9	Asymptotic models of dilute composites with imperfectly bonded inclusions. International Journal of Solids and Structures, 1998, 35, 3239-3258.	2.7	92
10	Asymptotic modelling of adhesive joints. Mechanics of Materials, 1998, 28, 137-145.	3.2	83
11	Band-gap shift and defect-induced annihilation in prestressed elastic structures. Journal of Applied Physics, 2009, 105, .	2.5	81
12	Transformation elastodynamics and cloaking for flexural waves. Journal of the Mechanics and Physics of Solids, 2014, 72, 131-143.	4.8	81
13	Blochâ€“Floquet bending waves in perforated thin plates. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 2505-2518.	2.1	75
14	Dynamics of structural interfaces: Filtering and focussing effects for elastic waves. Journal of the Mechanics and Physics of Solids, 2010, 58, 1212-1224.	4.8	75
15	Statics and dynamics of structural interfaces in elasticity. International Journal of Solids and Structures, 2002, 39, 4843-4865.	2.7	72
16	Focussing bending waves via negative refraction in perforated thin plates. Applied Physics Letters, 2010, 96, .	3.3	71
17	Localised knife waves in a structured interface. Journal of the Mechanics and Physics of Solids, 2009, 57, 1958-1979.	4.8	64
18	On perturbations of plane cracks. International Journal of Solids and Structures, 1998, 35, 3419-3453.	2.7	63

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19	Three-dimensional dynamic perturbation of a propagating crack. Journal of the Mechanics and Physics of Solids, 1997, 45, 591-610.	4.8	62
20	Computer simulation of grain-boundary diffusion creep. Acta Materialia, 2002, 50, 3941-3955.	7.9	58
21	Platonic crystals: Bloch bands, neutrality and defects. Mechanics of Materials, 2009, 41, 356-363.	3.2	58
22	Dynamics of a prestressed stiff layer on an elastic half space: filtering and band gap characteristics of periodic structural models derived from long-wave asymptotics. Journal of the Mechanics and Physics of Solids, 2008, 56, 2494-2520.	4.8	57
23	The Rayleigh multipole method for linear elasticity. Journal of the Mechanics and Physics of Solids, 1994, 42, 711-727.	4.8	55
24	Asymptotic treatment of perforated domains without homogenization. Mathematische Nachrichten, 2010, 283, 104-125.	0.8	55
25	The colours of cloaks. Journal of Optics (United Kingdom), 2011, 13, 024014.	2.2	53
26	The cavity of the optimal shape under the shear stresses. International Journal of Solids and Structures, 1998, 35, 4391-4410.	2.7	52
27	Achieving invisibility over a finite range of frequencies. Optics Express, 2008, 16, 5656.	3.4	51
28	Tilted resonators in a triangular elastic lattice: Chirality, Bloch waves and negative refraction. Journal of the Mechanics and Physics of Solids, 2017, 103, 236-256.	4.8	50
29	Band gap Green's functions and localized oscillations. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 2709-2727.	2.1	46
30	A homogenization route towards square cylindrical acoustic cloaks. New Journal of Physics, 2008, 10, 115030.	2.9	46
31	Dispersion properties of vortex-type monatomic lattices. International Journal of Solids and Structures, 2014, 51, 2213-2225.	2.7	46
32	Mathematical model of delamination cracks on imperfect interfaces. International Journal of Solids and Structures, 2001, 38, 6665-6697.	2.7	42
33	Vortex-type elastic structured media and dynamic shielding. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 3027-3046.	2.1	42
34	Symmetric and skew-symmetric weight functions in 2D perturbation models for semi-infinite interfacial cracks. Journal of the Mechanics and Physics of Solids, 2009, 57, 1657-1682.	4.8	40
35	Elastic waves and homogenization in oblique periodic structures. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2002, 458, 1887-1912.	2.1	39
36	Green's Kernels and Meso-Scale Approximations in Perforated Domains. Lecture Notes in Mathematics, 2013, , .	0.2	39

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37	Asymptotic model of orthotropic highly inhomogeneous layered structure. Mechanics of Materials, 1999, 31, 101-116.	3.2	38
38	Noncommuting Limits in Electromagnetic Scattering: Asymptotic Analysis for an Array of Highly Conducting Inclusions. SIAM Journal on Applied Mathematics, 2001, 61, 1706-1730.	1.8	38
39	Dynamics of a bridged crack in a discrete lattice. Quarterly Journal of Mechanics and Applied Mathematics, 2008, 61, 151-160.	1.3	38
40	Dynamic weight functions for a moving crack. II. Shear loading. Journal of the Mechanics and Physics of Solids, 1995, 43, 1369-1383.	4.8	37
41	Waves and fracture in an inhomogeneous lattice structure. Waves in Random and Complex Media, 2007, 17, 409-428.	2.7	36
42	Wave scattering by platonic grating stacks. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 3383-3400.	2.1	36
43	Transformation cloaking and radial approximations for flexural waves in elastic plates. New Journal of Physics, 2014, 16, 093020.	2.9	36
44	Oblique propagation of electromagnetic and elastic waves for an array of cylindrical fibres. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2003, 459, 2215-2263.	2.1	35
45	Dispersion and localization of elastic waves in materials with microstructure. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 2874-2895.	2.1	35
46	The PÃ³lyaâ€“SzegÃ¶ matrices in asymptotic models of dilute composites. European Journal of Applied Mathematics, 1997, 8, 595-621.	2.9	33
47	Crack in a lattice waveguide. International Journal of Fracture, 2010, 162, 91-106.	2.2	32
48	Transmission, trapping and filtering of waves in periodically constrained elastic plates. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 76-93.	2.1	32
49	Asymptotics of eigenfrequencies in the dynamic response of elongated multi-structures. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 378-394.	2.1	32
50	Mesoscale Asymptotic Approximations to Solutions of Mixed Boundary Value Problems in Perforated Domains. Multiscale Modeling and Simulation, 2011, 9, 424-448.	1.6	31
51	Twoâ€“dimensional phononic crystals and scattering of elastic waves by an array of voids. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2002, 458, 2327-2347.	2.1	30
52	Making waves round a structured cloak: lattices, negative refraction and fringes. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20130218.	2.1	30
53	Transition wave in a supported heavy beam. Journal of the Mechanics and Physics of Solids, 2013, 61, 2067-2085.	4.8	30
54	Phononic Band Gap Systems in Structural Mechanics: Finite Slender Elastic Structures and Infinite Periodic Waveguides. Journal of Vibration and Acoustics, Transactions of the ASME, 2013, 135, .	1.6	30

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55	Low frequency corrections to the static effective dielectric constant of a two-dimensional composite material. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 1996, 452, 2231-2245.	2.1	29
56	Evaluation of the Lazarusâ€“Leblond constants in the asymptotic model of the interfacial wavy crack. Journal of the Mechanics and Physics of Solids, 2007, 55, 1575-1600.	4.8	29
57	All-angle-negative-refraction and ultra-refraction for liquid surface waves in 2D phononic crystals. Journal of Computational and Applied Mathematics, 2010, 234, 2011-2019.	2.0	29
58	Dynamic anisotropy and localization in elastic lattice systems. Waves in Random and Complex Media, 2012, 22, 143-159.	2.7	28
59	Stability of a dislocation : Discrete model. European Journal of Applied Mathematics, 1998, 9, 373-396.	2.9	27
60	Crack Propagation in a Brittle Elastic Material With Defects. Journal of Applied Mechanics, Transactions ASME, 1999, 66, 79-86.	2.2	27
61	Analytical and numerical analysis of lensing effect for linear surface water waves through a square array of nearly touching rigid square cylinders. Physical Review E, 2008, 77, 046308.	2.1	27
62	Negative refraction, surface modes, and superlensing effect via homogenization near resonances for a finite array of split-ring resonators. Physical Review E, 2009, 80, 046309.	2.1	27
63	â€˜Parabolicâ€™ trapped modes and steered Dirac cones in platonic crystals. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2015, 471, 20140746.	2.1	26
64	Microstructure-based numerical simulation of the mechanical behaviour of ocular tissue. Journal of the Royal Society Interface, 2019, 16, 20180685.	3.4	26
65	Propagation of Slepyan's crack in a non-uniform elastic lattice. Journal of the Mechanics and Physics of Solids, 2013, 61, 1464-1488.	4.8	25
66	Quasi-periodicity and multi-scale resonators for the reduction of seismic vibrations in fluid-solid systems. International Journal of Engineering Science, 2016, 109, 216-239.	5.0	24
67	Localised vibration modes and stop bands for continuous and discrete periodic structures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 431, 175-183.	5.6	23
68	Steady-state motion of a mode-III crack on imperfect interfaces. Quarterly Journal of Mechanics and Applied Mathematics, 2006, 59, 487-516.	1.3	23
69	Dispersion and localisation in structured Rayleigh beams. International Journal of Solids and Structures, 2014, 51, 4452-4461.	2.7	23
70	Serpentine locomotion through elastic energy release. Journal of the Royal Society Interface, 2017, 14, 20170055.	3.4	23
71	Edge Waves and Localization in Lattices Containing Tilted Resonators. Frontiers in Materials, 2017, 4, .	2.4	23
72	Uniform asymptotic formulae for Green's kernels in regularly and singularly perturbed domains. Comptes Rendus Mathematique, 2006, 343, 185-190.	0.3	22

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73	Uniform asymptotic formulae for Green's functions in singularly perturbed domains. Journal of Computational and Applied Mathematics, 2007, 208, 194-206.	2.0	22
74	ASYMPTOTIC ANALYSIS OF THE REINFORCEMENT OF A BRITTLE CRACK BY BRIDGING FIBRES. Quarterly Journal of Mechanics and Applied Mathematics, 1993, 46, 331-350.	1.3	21
75	Noncommuting limits and effective properties for oblique propagation of electromagnetic waves through an array of aligned fibres. Physical Review B, 2004, 69, .	3.2	21
76	Convergence properties and flat bands in platonic crystal band structures using the multipole formulation. Waves in Random and Complex Media, 2010, 20, 702-716.	2.7	21
77	Fields in Non-Degenerate 1D-3D Elastic Multi-Structures. Quarterly Journal of Mechanics and Applied Mathematics, 2001, 54, 177-212.	1.3	19
78	Stability of an advancing crack to small perturbation of its path. Journal of the Mechanics and Physics of Solids, 2002, 50, 57-80.	4.8	19
79	Micromechanical model of nonlinear deformation of shape memory alloys under phase and structure transitions. Mechanics of Solids, 2010, 45, 406-416.	0.7	19
80	Localization for a line defect in an infinite square lattice. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20120579.	2.1	19
81	Duality relations, correspondences and numerical results for planar elastic composites. Journal of the Mechanics and Physics of Solids, 1997, 45, 565-590.	4.8	18
82	Dynamic stability of a propagating crack. Journal of the Mechanics and Physics of Solids, 2002, 50, 2637-2668.	4.8	18
83	Dynamical extraction of a single chain from a discrete lattice. Journal of the Mechanics and Physics of Solids, 2008, 56, 487-495.	4.8	18
84	Two-dimensional lattice models of the Peierls type. Philosophical Magazine, 2003, 83, 569-587.	1.6	17
85	Uniform asymptotic approximations of Green's functions in a long rod. Mathematical Methods in the Applied Sciences, 2008, 31, 2055-2068.	2.3	17
86	Crack propagation induced by thermal shocks in structured media. International Journal of Solids and Structures, 2013, 50, 2725-2736.	2.7	17
87	Transition Wave in the Collapse of the San Saba Bridge. Frontiers in Materials, 2014, 1, .	2.4	17
88	High-order asymptotics and perturbation problems for 3D interfacial cracks. Journal of the Mechanics and Physics of Solids, 2005, 53, 1128-1162.	4.8	16
89	Resonant waves in elastic structured media: Dynamic homogenisation versus Greenâ€™s functions. International Journal of Solids and Structures, 2014, 51, 2254-2260.	2.7	16
90	Transmission and localisation in ordered and randomly-perturbed structured flexural systems. International Journal of Engineering Science, 2016, 98, 126-152.	5.0	16

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91	Uniform Asymptotics of Green's Kernels for Mixed and Neumann Problems in Domains with Small Holes and Inclusions. International Mathematical Series, 2009, , 277-316.	0.3	16
92	Analysis of Elastic Band Structures for Oblique Incidence. Archive for Rational Mechanics and Analysis, 2004, 171, 129-150.	2.4	15
93	Analytic theory of defects in periodically structured elastic plates. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2012, 468, 1196-1216.	2.1	15
94	Coupling between electromagnetic and mechanical vibrations of thin-walled structures. Quarterly Journal of Mechanics and Applied Mathematics, 2004, 57, 407-428.	1.3	14
95	Perturbation of mode III interfacial cracks. International Journal of Fracture, 2010, 166, 41-51.	2.2	14
96	Dynamics of a Fault Steadily Propagating within a Structural Interface. Multiscale Modeling and Simulation, 2012, 10, 936-953.	1.6	14
97	Bypassing shake, rattle and roll. Physics World, 2013, 26, 32-36.	0.0	14
98	Waves in elastic bodies with discrete and continuous dynamic microstructure. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190313.	3.4	14
99	Numerical Solution of Nonlinear Hypersingular Integral Equations of the Peierls Type in Dislocation Theory. SIAM Journal on Applied Mathematics, 2000, 60, 664-678.	1.8	13
100	A study of quasi-circular cracks. International Journal of Fracture, 2002, 113, 1-25.	2.2	13
101	Band gaps and elastic waves in disordered stacks: normal incidence. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2003, 459, 221-240.	2.1	13
102	Flexural waves in structured elastic plates: Mindlin versus bi-harmonic models. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 869-880.	2.1	13
103	Perturbation analysis of Mode III interfacial cracks advancing in a dilute heterogeneous material. International Journal of Solids and Structures, 2012, 49, 244-255.	2.7	13
104	Dynamic response and localization in strongly damaged waveguides. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20140136.	2.1	13
105	One-way interfacial waves in aÂflexuralÂplate with chiral double resonators. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2020, 378, 20190350.	3.4	13
106	The influence of viscoelasticity on crack front waves. Journal of the Mechanics and Physics of Solids, 2001, 49, 2177-2189.	4.8	12
107	Asymptotic modelling of weakly twisted electrostatic problems. Comptes Rendus - Mecanique, 2006, 334, 91-97.	2.1	12
108	Shear polarisation of elastic waves by a structured interface. Continuum Mechanics and Thermodynamics, 2010, 22, 663-677.	2.2	12

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109	Dynamic mode-III interface crack in a bi-material strip. International Journal of Fracture, 2010, 166, 121-133.	2.2	12
110	Stroh formalism in analysis of skew-symmetric and symmetric weight functions for interfacial cracks. Mathematics and Mechanics of Solids, 2013, 18, 135-152.	2.4	12
111	Symmetry and resonant modes in platonic grating stacks. Waves in Random and Complex Media, 2014, 24, 126-148.	2.7	12
112	Omnidirectional flexural invisibility of multiple interacting voids in vibrating elastic plates. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20190283.	2.1	12
113	Perturbation of a dynamic crack in an infinite strip. Quarterly Journal of Mechanics and Applied Mathematics, 2005, 58, 333-347.	1.3	11
114	Asymptotic estimates for localized electromagnetic modes in doubly periodic structures with defects. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 1045-1067.	2.1	11
115	Interaction of an interfacial crack with linear small defects under out-of-plane shear loading. Computational Materials Science, 2012, 52, 226-230.	3.0	11
116	Localized waves at a line of dynamic inhomogeneities: General considerations and some specific problems. Journal of the Mechanics and Physics of Solids, 2020, 138, 103901.	4.8	11
117	A correspondence between plane elasticity and the two-dimensional real and complex dielectric equations in anisotropic media. Proceedings of the Royal Society A, 1995, 450, 293-317.	0.9	10
118	Flexural vibration systems with gyroscopic spinners. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20190154.	3.4	10
119	Analysis of X-ray scattering microstructure data for implementation in numerical simulations of ocular biomechanical behaviour. PLoS ONE, 2019, 14, e0214770.	2.5	10
120	Wave polarization and dynamic degeneracy in a chiral elastic lattice. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2019, 475, 20190313.	2.1	10
121	Asymptotic and numerical study of a surface breaking crack subject to a transient thermal loading. Acta Mechanica Sinica/Lixue Xuebao, 2006, 22, 22-27.	3.4	9
122	Two-parameter asymptotic approximations in the analysis of a thin solid fixed on a small part of its boundary. Quarterly Journal of Mechanics and Applied Mathematics, 2007, 60, 457-471.	1.3	9
123	Acoustic stop bands in almost-periodic and weakly randomized stratified media: perturbation analysis. Acta Mechanica Sinica/Lixue Xuebao, 2008, 24, 549-556.	3.4	9
124	Acoustic band gaps in arrays of neutral inclusions. Journal of Computational and Applied Mathematics, 2010, 234, 1962-1969.	2.0	9
125	Nested Bloch waves in elastic structures with configurational forces. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2019, 377, 20190101.	3.4	9
126	Realizable (Average Stress, Average Strain) Pairs in a Plate with Holes. SIAM Journal on Applied Mathematics, 2003, 63, 987-1028.	1.8	8

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127	Multi-structures: asymptotic analysis and singular perturbation problems. European Journal of Mechanics, A/Solids, 2006, 25, 677-694.	3.7	8
128	High order asymptotic analysis of twisted electrostatic problems. Physica B: Condensed Matter, 2007, 394, 335-338.	2.7	8
129	Waves in lattices with imperfect junctions and localized defect modes. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2008, 464, 2037-2054.	2.1	8
130	Interfacial effects in electromagnetic coupling within piezoelectric phononic crystals. Acta Mechanica Sinica/Lixue Xuebao, 2009, 25, 95-99.	3.4	8
131	Weight Function in a Bimaterial Strip Containing an Interfacial Crack and an Imperfect Interface. Application to Blochâ€“Floquet Analysis in a Thin Inhomogeneous Structure with Cracks. Multiscale Modeling and Simulation, 2011, 9, 1327-1349.	1.6	8
132	Fibril density reduction in keratoconic corneas. Journal of the Royal Society Interface, 2021, 18, 20200900.	3.4	8
133	Slow decay of end effects in layered structures with an imperfect interface. Journal of Engineering Mathematics, 2003, 45, 155-168.	1.2	7
134	Blochâ€“Floquet waves and controlled stop bands in periodic thermo-elastic structures. Waves in Random and Complex Media, 2007, 17, 429-438.	2.7	7
135	Asymptotic analysis of Blochâ€“Floquet waves in a thin bi-material strip with a periodic array of finite-length cracks. Waves in Random and Complex Media, 2007, 17, 511-533.	2.7	7
136	Lattice Greenâ€™s Functions in Nonlinear Analysis of Defects. Journal of Applied Mechanics, Transactions ASME, 2007, 74, 686-690.	2.2	7
137	Localised bending modes in split ring resonators. Physica B: Condensed Matter, 2007, 394, 141-144.	2.7	7
138	Waves and damage in structured solids with multi-scale resonators. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2011, 467, 964-984.	2.1	7
139	Trapping of a crack advancing through an elastic lattice. International Journal of Engineering Science, 2012, 61, 129-141.	5.0	7
140	Off-Axis Diffraction By Perfectly Conducting Capacitive Grids: Modal Formulation and Verification. Journal of Electromagnetic Waves and Applications, 1998, 12, 847-882.	1.6	6
141	Frictional contact of a fibre and an elastic solid. Journal of the Mechanics and Physics of Solids, 2000, 48, 1413-1439.	4.8	6
142	Perturbation of a dynamic planar crack moving in a model viscoelastic solid. International Journal of Solids and Structures, 2002, 39, 5409-5426.	2.7	6
143	Transport properties of densely packed composites. Effect of shapes and spacings of inclusions. Quarterly Journal of Mechanics and Applied Mathematics, 2004, 57, 495-528.	1.3	6
144	DYNAMIC MULTIâ€STRUCTURE IN MODELLING A TRANSITION FLEXURAL WAVE. Mathematika, 2015, 61, 444-456.	0.5	6

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145	Propagation and filtering of elastic and electromagnetic waves in piezoelectric composite structures. Mathematical Methods in the Applied Sciences, 2017, 40, 3202-3220.	2.3	6
146	Asymptotic behaviour of stress-strain state in the vicinity of sharp defects in an elastic body. IMA Journal of Applied Mathematics, 1992, 49, 245-272.	1.6	5
147	Thermal stress analysis and homogenization for catalytic combustor monoliths. European Journal of Applied Mathematics, 1999, 10, 185-220.	2.9	5
148	Asymptotic analysis for cracks in a catalytic monolith combustor. International Journal of Solids and Structures, 2000, 37, 1899-1930.	2.7	5
149	Mathematical modelling of heat transfer in a catalytic reformer. IMA Journal of Applied Mathematics, 2004, 70, 201-220.	1.6	5
150	Comparisons of finite element and Rayleigh methods for the study of conical Bloch waves in arrays of metallic cylinders. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2004, 23, 932-949.	0.9	5
151	Asymptotic Study of A Thermoelastic Problem in A Semi-Infinite Body Containing A Surface-Breaking Crack and Small Perforations. Quarterly Journal of Mechanics and Applied Mathematics, 2011, 64, 349-369.	1.3	5
152	Cloaking Comes Out of the Shadows. Physics Magazine, 2012, 5, .	0.1	5
153	Uniform asymptotics of Green's kernels in perforated domains and meso-scale approximations. Complex Variables and Elliptic Equations, 2012, 57, 137-154.	0.8	5
154	Early assessment of seismic hazard in terms of Voronezh massif-Moscow Depression contact. Mining of Mineral Deposits, 2021, 15, 62-70.	2.8	5
155	Models of fracture of cellular monolith structures. International Journal of Solids and Structures, 2001, 38, 1659-1668.	2.7	4
156	Vibrations of multi-structures including elastic shells: Asymptotic analysis. European Journal of Applied Mathematics, 2002, 13, 109-128.	2.9	4
157	Junction Conditions for Cracked Elastic Thin Solids Under Bending and Shear. Quarterly Journal of Mechanics and Applied Mathematics, 2009, 62, 481-494.	1.3	4
158	Analytical model of thermal striping for a micro-cracked solid. International Journal of Solids and Structures, 2012, 49, 1189-1194.	2.7	4
159	Increasing Resolution of Seismic Hazard Mapping on the Example of the North of Middle Russian Highland. Applied Sciences (Switzerland), 2021, 11, 5298.	2.5	4
160	Modelling of seismic assessment for large geological systems. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, .	3.4	4
161	Frontal waves and transmissions for temporal laminates and imperfect chiral interfaces. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, .	3.4	4
162	Stress-strain state near the tip of a perfectly rigid three-dimensional spike introduced into an elastic body. Soviet Applied Mechanics, 1989, 25, 1172-1180.	0.0	3

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163	Dynamic corrections to the Lorentz-Lorenz formula. Physica A: Statistical Mechanics and Its Applications, 1997, 241, 179-182.	2.6	3
164	Dynamic singular perturbation problems for multi-structures. Applied Stochastic Models in Business and Industry, 2000, 16, 249-278.	1.5	3
165	On Oscillation of Inhomogeneous Fibres with Imperfect Interfaces. Quarterly Journal of Mechanics and Applied Mathematics, 2001, 54, 431-448.	1.3	3
166	Imperfect Interfaces and Discrete Lattice Structures. Journal of Engineering Materials and Technology, Transactions of the ASME, 2003, 125, 7-11.	1.4	3
167	Elastic waves in arrays of elliptic inclusions. Zeitschrift Fur Kristallographie - Crystalline Materials, 2005, 220, .	0.8	3
168	Characterization of random microstructural stresses and fracture estimation. European Journal of Mechanics, A/Solids, 2007, 26, 573-591.	3.7	3
169	Estimates for localised transverse electric modes in multi-structured crystal fibres. Physica B: Condensed Matter, 2007, 394, 281-284.	2.7	3
170	Mode III crack propagation in a bimaterial plane driven by a channel of small line defects. Computational Materials Science, 2012, 64, 239-243.	3.0	3
171	Localisation near defects and filtering of flexural waves in structured plates. International Journal of Fracture, 2013, 184, 25-41.	2.2	3
172	Blockage and guiding of flexural waves in a semiâ€infinite double grating. Mathematical Methods in the Applied Sciences, 2017, 40, 3265-3282.	2.3	3
173	Mapping certain planar elasticity problems to antiplane ones. European Journal of Mechanics, A/Solids, 1998, 17, 1-11.	3.7	2
174	A universal asymptotic algorithm for elastic thin shells. European Journal of Applied Mathematics, 2000, 11, 573-594.	2.9	2
175	On crack perturbation in thermoelastic media. International Journal of Solids and Structures, 2000, 37, 6605-6622.	2.7	2
176	Conical propagation of electromagnetic waves through an array of cylindrical inclusions. Physica B: Condensed Matter, 2003, 338, 149-152.	2.7	2
177	Estimates for the low eigenfrequencies of a multi-structure including an elastic shell. European Journal of Applied Mathematics, 2003, 14, 313-342.	2.9	2
178	Crack path in an elastic material with a random array of small defects. International Journal of Fracture, 2004, 125, 103-123.	2.2	2
179	Singular perturbation analysis of dynamic fields in a thermoelastic solid with a small surface-breaking crack. Acta Mechanica Sinica/Lixue Xuebao, 2006, 22, 449-454.	3.4	2
180	Blochâ€“Floquet waves and localisation within a heterogeneous waveguide with long cracks. Continuum Mechanics and Thermodynamics, 2010, 22, 545-553.	2.2	2

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181	Dynamic response of a growing inclusion in a discrete system. International Journal of Solids and Structures, 2014, 51, 2990-3001.	2.7	2
182	Analysis of Low Frequency Acoustic Stop Bands in Cubic Arrays of Thick Spherical Shells With Holes. Frontiers in Materials, 2019, 6, .	2.4	2
183	Formation of a Griffith's crack in a nonuniform stress field. Soviet Materials Science, 1990, 26, 23-27.	0.0	1
184	Cracks in composite materials. 2. Finite crack in the orthotropic composite plane. Mechanics of Composite Materials, 1991, 26, 750-757.	1.4	1
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