

Shuitao Gu

List of Publications by Year in descending order

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49
papers

981
citations

471509

17
h-index

434195

31
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all docs

49
docs citations

49
times ranked

704
citing authors

#	ARTICLE	IF	CITATIONS
1	Interfacial discontinuity relations for coupled multifield phenomena and their application to the modeling of thin interphases as imperfect interfaces. <i>Journal of the Mechanics and Physics of Solids</i> , 2011, 59, 1413-1426.	4.8	116
2	A more fundamental approach to damaged elastic stress-strain relations. <i>International Journal of Solids and Structures</i> , 1995, 32, 1433-1457.	2.7	89
3	Willis elastodynamic homogenization theory revisited for periodic media. <i>Journal of the Mechanics and Physics of Solids</i> , 2015, 77, 158-178.	4.8	84
4	Variational principles and bounds for elastic inhomogeneous materials with coherent imperfect interfaces. <i>Mechanics of Materials</i> , 2008, 40, 865-884.	3.2	70
5	Size-dependent effective thermoelastic properties of nanocomposites with spherically anisotropic phases. <i>Journal of the Mechanics and Physics of Solids</i> , 2007, 55, 1899-1931.	4.8	65
6	Observation of normal-force-independent superlubricity in mesoscopic graphite contacts. <i>Physical Review B</i> , 2016, 94, .	3.2	62
7	Size-dependent effective elastic moduli of particulate composites with interfacial displacement and traction discontinuities. <i>International Journal of Solids and Structures</i> , 2014, 51, 2283-2296.	2.7	55
8	Inclusions in a finite elastic body. <i>International Journal of Solids and Structures</i> , 2012, 49, 1627-1636.	2.7	47
9	Three-dimensional numerical modelling by XFEM of spring-layer imperfect curved interfaces with applications to linearly elastic composite materials. <i>International Journal for Numerical Methods in Engineering</i> , 2011, 88, 307-328.	2.8	36
10	On asymptotic elastodynamic homogenization approaches for periodic media. <i>Journal of the Mechanics and Physics of Solids</i> , 2016, 88, 274-290.	4.8	29
11	A versatile interface model for thermal conduction phenomena and its numerical implementation by XFEM. <i>Computational Mechanics</i> , 2014, 53, 825-843.	4.0	26
12	Microscale superlubricity of graphite under various twist angles. <i>Physical Review B</i> , 2019, 99, .	3.2	24
13	Evolution of the free volume between rough surfaces in contact. <i>Wear</i> , 2015, 336-337, 86-95.	3.1	23
14	Effective elastic moduli of fiber-reinforced composites with interfacial displacement and stress jumps. <i>International Journal of Solids and Structures</i> , 2016, 80, 146-157.	2.7	23
15	Isogeometric analysis for non-classical Bernoulli-Euler beam model incorporating microstructure and surface energy effects. <i>Applied Mathematical Modelling</i> , 2021, 89, 470-485.	4.2	23
16	The strong and weak forms of a general imperfect interface model for linear coupled multifield phenomena. <i>International Journal of Engineering Science</i> , 2014, 85, 31-46.	5.0	22
17	A new isogeometric Timoshenko beam model incorporating microstructures and surface energy effects. <i>Mathematics and Mechanics of Solids</i> , 2020, 25, 2005-2022.	2.4	18
18	Characterization of surface and nonlinear elasticity in wurtzite ZnO nanowires. <i>Journal of Applied Physics</i> , 2012, 111, 124305.	2.5	17

#	ARTICLE	IF	CITATIONS
19	Homogenization of layered elastoplastic composites: Theoretical results. <i>International Journal of Non-Linear Mechanics</i> , 2012, 47, 367-376.	2.6	12
20	An XFEM/level set strategy for simulating the piezoelectric spring-type interfaces with apparent physical background. <i>Finite Elements in Analysis and Design</i> , 2017, 133, 62-75.	3.2	12
21	Dynamic fracture analysis of the linearly uncoupled and coupled physical phenomena by the variable-node multiscale XFEM. <i>Engineering Fracture Mechanics</i> , 2021, 254, 107941.	4.3	12
22	Computation of the size-dependent elastic moduli of nano-fibrous and nano-porous composites by FFT. <i>Composites Science and Technology</i> , 2016, 135, 159-171.	7.8	9
23	Effective elastic isotropic moduli of highly filled particulate composites with arbitrarily shaped inhomogeneities. <i>Mechanics of Materials</i> , 2019, 135, 35-45.	3.2	9
24	A four-scale homogenization analysis of creep of a nuclear containment structure. <i>Nuclear Engineering and Design</i> , 2013, 265, 712-726.	1.7	8
25	Variational principles and size-dependent bounds for piezoelectric inhomogeneous materials with piezoelectric spring-type layer imperfect interfaces. <i>Smart Materials and Structures</i> , 2014, 23, 055003.	3.5	8
26	A non-classical couple stress based Mindlin plate finite element framework for tuning band gaps of periodic composite micro plates. <i>Journal of Sound and Vibration</i> , 2022, 529, 116889.	3.9	8
27	Thermoelastic composites with columnar microstructure and cylindrically anisotropic phases. Part II: One-parameter generalized self-consistent estimates. <i>International Journal of Engineering Science</i> , 2007, 45, 424-435.	5.0	6
28	On the conforming contact problem in a reinforced pin-loaded structure with a non-zero second Dundurs's constant. <i>International Journal of Solids and Structures</i> , 2008, 45, 3935-3950.	2.7	5
29	Two-scale homogenization of elastic layered composites with interfaces oscillating in two directions. <i>Mechanics of Materials</i> , 2014, 75, 60-72.	3.2	5
30	The effective elastic moduli of columnar composites made of cylindrically anisotropic phases with rough interfaces. <i>International Journal of Solids and Structures</i> , 2014, 51, 2633-2647.	2.7	5
31	Compact closed-form micromechanical expressions for the effective uncoupled and coupled linear properties of layered composites. <i>Philosophical Magazine</i> , 2015, 95, 2793-2816.	1.6	5
32	Exact connections between the effective elastic moduli of fibre-reinforced composites with general imperfect interfaces. <i>International Journal of Solids and Structures</i> , 2017, 104-105, 65-72.	2.7	5
33	A Transversely Isotropic Magneto-Electro-Elastic Circular Kirchhoff Plate Model Incorporating Microstructure Effect. <i>Acta Mechanica Solida Sinica</i> , 2022, 35, 185-197.	1.9	5
34	Thermoelastic composites with columnar microstructure and cylindrically anisotropic phases. Part I: Exact results. <i>International Journal of Engineering Science</i> , 2007, 45, 402-423.	5.0	4
35	Thermal inclusions inside a bounded medium. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2013, 469, 20130221.	2.1	4
36	Implementation of a physics-based general elastic imperfect interface model in the XFEM and LSM context. <i>International Journal for Numerical Methods in Engineering</i> , 2018, 115, 1499-1525.	2.8	4

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37	The effective thermal conductivity of composites with interfaces oscillating in two directions around a curved surface. <i>Acta Mechanica</i> , 2020, 231, 5063-5103.	2.1	4
38	A 4th order fabric tensor approach applied to granular media. <i>Computers and Geotechnics</i> , 2009, 36, 736-742.	4.7	3
39	On the micromechanical definition of macroscopic strain and strain-rate tensors for granular materials. <i>Computational Materials Science</i> , 2014, 94, 51-57.	3.0	3
40	Effective interfacial conditions for the Stokes flow of a fluid on periodically rough surfaces. <i>Acta Mechanica</i> , 2017, 228, 1851-1869.	2.1	3
41	Effects of the progressive damage interphase on the effective bulk behavior of spherical particulate composites. <i>Acta Mechanica</i> , 2021, 232, 423-437.	2.1	3
42	A 2D micromechanical modelling of anisotropy in granular media. <i>Comptes Rendus - Mecanique</i> , 2007, 335, 231-237.	2.1	2
43	Interphase Effect on the Macro Nonlinear Mechanical Behavior of Cement-Based Solidified Sand Mixture. <i>Materials</i> , 2022, 15, 1972.	2.9	2
44	Multiscale modeling of the macroscopic size-dependent effects of interfacial transition zones in concrete and their damage. <i>Procedia Engineering</i> , 2009, 1, 27-30.	1.2	1
45	Lower strain and stress bounds for elastic random composites consisting of two isotropic phases and exhibiting cubic symmetry. <i>International Journal of Engineering Science</i> , 2010, 48, 429-445.	5.0	1
46	Shear-lag model for discontinuous fiber-reinforced composites with a membrane-type imperfect interface. <i>Acta Mechanica</i> , 2020, 231, 4717-4734.	2.1	1
47	Micromechanical modelling of the anisotropic creep behaviour of granular medium as a fourth-order fabric tensor. <i>Advances in Mechanical Engineering</i> , 2021, 13, 168781402110361.	1.6	1
48	Variational Formulations and Isogeometric Analysis of Timoshenko's Ehrenfest Microbeam Using a Reformulated Strain Gradient Elasticity Theory. <i>Crystals</i> , 2022, 12, 752.	2.2	1
49	Passive enhancement of heat transfer in a microchannel by an adjoint system of cylinder and flexible beam. <i>Numerical Heat Transfer; Part A: Applications</i> , 2022, 82, 765-787.	2.1	1