

Andrei Metrikine

List of Publications by Year in descending order

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papers

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citations

186265

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docs citations

95
times ranked

1162
citing authors

#	ARTICLE	IF	CITATIONS
1	One-dimensional dynamically consistent gradient elasticity models derived from a discrete microstructure. <i>European Journal of Mechanics, A/Solids</i> , 2002, 21, 555-572.	3.7	173
2	SURFACE GROUND VIBRATION DUE TO A MOVING TRAIN IN A TUNNEL: TWO-DIMENSIONAL MODEL. <i>Journal of Sound and Vibration</i> , 2000, 234, 43-66.	3.9	148
3	Comparison of wave propagation characteristics of the Cosserat continuum model and corresponding discrete lattice models. <i>International Journal of Solids and Structures</i> , 2001, 38, 1563-1583.	2.7	144
4	Periodically supported beam on a visco-elastic layer as a model for dynamic analysis of a high-speed railway track. <i>International Journal of Solids and Structures</i> , 2003, 40, 5723-5752.	2.7	113
5	A wake oscillator with frequency dependent coupling for the modeling of vortex-induced vibration. <i>Journal of Sound and Vibration</i> , 2010, 329, 5452-5473.	3.9	103
6	Assessment of design parameters of a slab track railway system from a dynamic viewpoint. <i>Journal of Sound and Vibration</i> , 2007, 306, 361-371.	3.9	93
7	On causality of the gradient elasticity models. <i>Journal of Sound and Vibration</i> , 2006, 297, 727-742.	3.9	87
8	Dynamic stability of a submerged, free-hanging riser conveying fluid. <i>Journal of Sound and Vibration</i> , 2005, 280, 1051-1065.	3.9	81
9	Four simplified gradient elasticity models for the simulation of dispersive wave propagation. <i>Philosophical Magazine</i> , 2008, 88, 3415-3443.	1.6	81
10	One-dimensional dynamically consistent gradient elasticity models derived from a discrete microstructure. <i>European Journal of Mechanics, A/Solids</i> , 2002, 21, 573-588.	3.7	79
11	Higher-order continua derived from discrete media: continualisation aspects and boundary conditions. <i>International Journal of Solids and Structures</i> , 2005, 42, 187-202.	2.7	76
12	INSTABILITY OF VIBRATIONS OF A MASS MOVING UNIFORMLY ALONG AN AXIALLY COMPRESSED BEAM ON A VISCOELASTIC FOUNDATION. <i>Journal of Sound and Vibration</i> , 1997, 201, 567-576.	3.9	70
13	Experimental investigation of dynamic stability of a cantilever pipe aspirating fluid. <i>Journal of Fluids and Structures</i> , 2008, 24, 541-558.	3.4	69
14	Destabilization of deep-water risers by a heaving platform. <i>Journal of Sound and Vibration</i> , 2008, 310, 541-557.	3.9	66
15	Instability of vibrations of a moving two-mass oscillator on a flexibly supported Timoshenko beam. <i>Archive of Applied Mechanics</i> , 2001, 71, 613-624.	2.2	55
16	An isotropic dynamically consistent gradient elasticity model derived from a 2D lattice. <i>Philosophical Magazine</i> , 2006, 86, 3259-3286.	1.6	54
17	The effect of the interface conditions on the dynamic response of a beam on a half-space to a moving load. <i>European Journal of Mechanics, A/Solids</i> , 2007, 26, 33-54.	3.7	52
18	Analytical study of the dynamic response of an embedded railway track to a moving load. <i>Archive of Applied Mechanics</i> , 2003, 73, 131-146.	2.2	48

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19	Instability of vibrations of a mass that moves uniformly along a beam on a periodically inhomogeneous foundation. <i>Journal of Sound and Vibration</i> , 2003, 260, 901-925.	3.9	47
20	Stability of a two-mass oscillator moving on a beam supported by a visco-elastic half-space. <i>International Journal of Solids and Structures</i> , 2005, 42, 1187-1207.	2.7	47
21	A new time-domain drag description and its influence on the dynamic behaviour of a cantilever pipe conveying fluid. <i>Journal of Fluids and Structures</i> , 2007, 23, 429-445.	3.4	44
22	Steady-state vibrations of an elastic beam on a visco-elastic layer under moving load. <i>Archive of Applied Mechanics</i> , 2000, 70, 399-408.	2.2	43
23	Steady state response of an infinite string on a non-linear visco-elastic foundation to moving point loads. <i>Journal of Sound and Vibration</i> , 2004, 272, 1033-1046.	3.9	37
24	Dynamic response of a two-level catenary to a moving load. <i>Journal of Sound and Vibration</i> , 2006, 292, 676-693.	3.9	37
25	A semi-analytical model for the prediction of underwater noise from offshore pile driving. <i>Journal of Sound and Vibration</i> , 2013, 332, 3232-3257.	3.9	36
26	Noise reduction by the application of an air-bubble curtain in offshore pile driving. <i>Journal of Sound and Vibration</i> , 2016, 371, 150-170.	3.9	35
27	A three-dimensional vibroacoustic model for the prediction of underwater noise from offshore pile driving. <i>Journal of Sound and Vibration</i> , 2014, 333, 2283-2311.	3.9	34
28	Vortex-induced vibrations of a freely vibrating cylinder near a plane boundary: Experimental investigation and theoretical modelling. <i>Journal of Fluids and Structures</i> , 2017, 69, 382-401.	3.4	33
29	DYNAMIC BEHAVIOUR OF A LAYER OF DISCRETE PARTICLES, PART 1: ANALYSIS OF BODY WAVES AND EIGENMODES. <i>Journal of Sound and Vibration</i> , 2001, 240, 1-18.	3.9	27
30	INSTABILITY OF A BOGIE MOVING ON A FLEXIBLY SUPPORTED TIMOSHENKO BEAM. <i>Journal of Sound and Vibration</i> , 2002, 253, 653-668.	3.9	27
31	Model-based force and state estimation in experimental ice-induced vibrations by means of Kalman filtering. <i>Cold Regions Science and Technology</i> , 2015, 111, 13-26.	3.5	26
32	PASSING THROUGH THE "ELASTIC WAVE BARRIER" BY A LOAD MOVING ALONG A WAVEGUIDE. <i>Journal of Sound and Vibration</i> , 1997, 203, 597-606.	3.9	22
33	A method for identification of an effective Winkler foundation for large-diameter offshore wind turbine support structures based on in-situ measured small-strain soil response and 3D modelling. <i>Engineering Structures</i> , 2016, 124, 221-236.	5.3	22
34	STABILITY OF VIBRATIONS OF TWO OSCILLATORS MOVING UNIFORMLY ALONG A BEAM ON A VISCOELASTIC FOUNDATION. <i>Journal of Sound and Vibration</i> , 1998, 211, 829-842.	3.9	21
35	DYNAMIC BEHAVIOUR OF A LAYER OF DISCRETE PARTICLES, PART 2: RESPONSE TO A UNIFORMLY MOVING, HARMONICALLY VIBRATING LOAD. <i>Journal of Sound and Vibration</i> , 2001, 240, 19-39.	3.9	21
36	Effective soil-stiffness validation: Shaker excitation of an in-situ monopile foundation. <i>Soil Dynamics and Earthquake Engineering</i> , 2017, 102, 241-262.	3.8	21

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37	STEADY-STATE VIBRATIONS OF AN ELASTIC RING UNDER A MOVING LOAD. Journal of Sound and Vibration, 2000, 232, 511-524.	3.9	20
38	Transition radiation in a piecewise-linear and infinite one-dimensional structure—a Laplace transform method. Nonlinear Dynamics, 2019, 98, 2435-2461.	5.2	20
39	The in-plane free vibration of an elastically supported thin ring rotating at high speeds revisited. Journal of Sound and Vibration, 2017, 402, 203-218.	3.9	19
40	Three-Dimensional Vibrations of a Beam on an Elastic Half-Space: Resonance Interaction of Vertical-Longitudinal and Lateral Beam Waves. Journal of Applied Mechanics, Transactions ASME, 1997, 64, 951-956.	2.2	18
41	Drag experienced by a high-speed train due to excitation of ground vibrations. International Journal of Solids and Structures, 2001, 38, 8851-8868.	2.7	18
42	Interpretation and prediction of ice induced vibrations based on contact area variation. International Journal of Solids and Structures, 2015, 75-76, 336-348.	2.7	18
43	Transition radiation excited by a surface load that moves over the interface of two elastic layers. International Journal of Solids and Structures, 2015, 73-74, 99-112.	2.7	17
44	Structure-Borne Wave Radiation by Impact and Vibratory Piling in Offshore Installations: From Sound Prediction to Auditory Damage. Journal of Marine Science and Engineering, 2016, 4, 44.	2.6	17
45	Fractal Solids, Product Measures and Continuum Mechanics. Advances in Mechanics and Mathematics, 2010, , 315-323.	0.7	15
46	Ice-induced vibrations and ice buckling. Cold Regions Science and Technology, 2016, 131, 129-141.	3.5	15
47	A fast computational model for near- and far-field noise prediction due to offshore pile driving. Journal of the Acoustical Society of America, 2021, 149, 1772-1790.	1.1	14
48	The effect of hydrodynamics on the bending failure of level ice. Cold Regions Science and Technology, 2018, 153, 106-119.	3.5	13
49	Transition radiation in an elastically supported string. Abrupt and smooth variations of the support stiffness. Wave Motion, 1998, 27, 291-305.	2.0	12
50	Transition radiation in an infinite one-dimensional structure interacting with a moving oscillator—the Green's function method. Journal of Sound and Vibration, 2021, 492, 115804.	3.9	12
51	Study of the Sound Escape with the Use of an Air Bubble Curtain in Offshore Pile Driving. Journal of Marine Science and Engineering, 2021, 9, 232.	2.6	12
52	EIGENFREQUENCIES OF A TWO-MASS OSCILLATOR UNIFORMLY MOVING ALONG A STRING ON A VISCO-ELASTIC FOUNDATION. Journal of Sound and Vibration, 1998, 218, 103-116.	3.9	11
53	Transition radiation of elastic waves at the interface of two elastic half-planes. Journal of Sound and Vibration, 2008, 310, 702-717.	3.9	10
54	The significance of the evanescent spectrum in structure-waveguide interaction problems. Journal of the Acoustical Society of America, 2015, 138, 2574-2588.	1.1	10

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55	Modelling of coupled cross-flow and in-line vortex-induced vibrations of flexible cylindrical structures. Part II: on the importance of in-line coupling. <i>Nonlinear Dynamics</i> , 2021, 103, 3083-3112.	5.2	10
56	Assessing the small-strain soil stiffness for offshore wind turbines based on in situ seismic measurements. <i>Journal of Physics: Conference Series</i> , 2014, 524, 012088.	0.4	9
57	The effect of the nonlinear velocity and history dependencies of the aerodynamic force on the dynamic response of a rotating wind turbine blade. <i>Journal of Sound and Vibration</i> , 2016, 383, 191-209.	3.9	9
58	The Effect of Stress Wave Dispersion on the Drivability Analysis of Large-Diameter Monopiles. <i>Procedia Engineering</i> , 2017, 199, 2390-2395.	1.2	9
59	Modelling of coupled cross-flow and in-line vortex-induced vibrations of flexible cylindrical structures. Part I: model description and validation. <i>Nonlinear Dynamics</i> , 2021, 103, 3059-3082.	5.2	9
60	Parametric Instability of a Moving Particle on a Periodically Supported Infinitely Long String. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2008, 75, .	2.2	8
61	The influence of level ice on the frequency domain response of floaters. <i>Cold Regions Science and Technology</i> , 2017, 143, 112-125.	3.5	8
62	On the importance of soil damping for tall buildings loaded by wind. <i>Engineering Structures</i> , 2018, 163, 426-435.	5.3	8
63	Transition radiation in a nonlinear and infinite one-dimensional structure: a comparison of solution methods. <i>Nonlinear Dynamics</i> , 2021, 103, 1365-1391.	5.2	8
64	Installation of Large-Diameter Monopiles: Introducing Wave Dispersion and Non-Local Soil Reaction. <i>Journal of Marine Science and Engineering</i> , 2021, 9, 313.	2.6	8
65	Wave radiation in a one-dimensional system due to a non-uniformly moving constant load. <i>Wave Motion</i> , 1996, 24, 185-196.	2.0	6
66	Edge indentation of ice with a displacement-controlled oscillating cylindrical structure. <i>Cold Regions Science and Technology</i> , 2016, 121, 100-107.	3.5	6
67	A Lattice Model to Simulate Ice-Structure Interaction. , 2008, , .		6
68	Identification of effective properties of the railway substructure in the low-frequency range using a heavy oscillating unit on the track. <i>Archive of Applied Mechanics</i> , 2010, 80, 959-968.	2.2	5
69	Dynamic soil stiffness for foundation piles: Capturing 3D continuum effects in an effective, non-local 1D model. <i>International Journal of Solids and Structures</i> , 2018, 134, 272-282.	2.7	5
70	Instability of vibrations of an oscillator moving at high speed through a tunnel embedded in soft soil. <i>Journal of Sound and Vibration</i> , 2021, 494, 115776.	3.9	5
71	Remote detection of derailment of a wagon of a freight train: theory and experiment. <i>Archive of Applied Mechanics</i> , 2003, 73, 75-88.	2.2	4
72	Experimental Investigation of the Dynamic Behaviour of a Water Intake Riser. , 2007, , 479.		4

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73	Derivation and verification of a lattice model for bending vibration of a plate. ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik, 2018, 98, 367-387.	1.6	4
74	On the energy transfer at boundaries of translating continua. Journal of Sound and Vibration, 2006, 297, 1107-1113.	3.9	3
75	Fatigue Analysis of Subsea Jumpers due to Slug Flow. , 2014, , .		3
76	Analysis of the Fatigue Life of Offshore Wind Turbine Generators Under Combined Ice- and Aerodynamic Loading. , 2014, , .		3
77	A Wake Oscillator With Frequency Dependent Tuning Coefficients for the Modeling of VIV. , 2008, , .		2
78	Dynamics of the Vertical Hydraulic Transport System for Deep Sea Mining. , 2011, , .		2
79	Nonlinear model parameter identification for ice-induced vibrations. Procedia Engineering, 2017, 199, 583-588.	1.2	2
80	Transient calculation of pressure waves in a well induced by tubular expansion. Procedia Engineering, 2017, 199, 1276-1281.	1.2	2
81	Instability of an oscillator moving along a thin ring on a viscoelastic foundation. Procedia Engineering, 2017, 199, 2555-2560.	1.2	2
82	Identification of Energy Dissipation in Structural Joints by Means of the Energy Flow Analysis. Journal of Vibration and Acoustics, Transactions of the ASME, 2018, 140, .	1.6	2
83	A mode-matching method for the prediction of stick-slip relative motion of two elastic rods in frictional contact. Acta Mechanica, 2022, 233, 753-773.	2.1	2
84	Dynamic amplification in a periodic structure with a transition zone subject to a moving load: Three different phenomena. Mathematics and Mechanics of Solids, 2022, 27, 1740-1760.	2.4	2
85	Title is missing!. Journal of Sound and Vibration, 2008, 310, 461.	3.9	1
86	A Wake Oscillator Model With Nonlinear Coupling for the VIV of Rigid Cylinder Constrained to Vibrate in the Cross-Flow Direction. , 2016, , .		1
87	Effective stiffness method for rigid monopile foundations of offshore wind turbines and in-situ validation. Procedia Engineering, 2017, 199, 3248-3253.	1.2	1
88	Radiation generated during the uniform motion of an object in a randomly nonuniform elastic system. International Applied Mechanics, 1992, 28, 582-585.	0.6	0
89	On the Dynamic Interaction Between Drifting Level Ice and Moored Downward Conical Structures: A Critical Assessment of the Applicability of a Beam Model for the Ice. , 2011, , .		0
90	On the minimization of wave reflection at the interface of a discrete system and a dispersively similar continuum. Journal of Sound and Vibration, 2015, 346, 191-199.	3.9	0

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91	Dynamics of frictional systems with memory. <i>Continuum Mechanics and Thermodynamics</i> , 2019, , 1.	2.2	0
92	The Work of a Source Maintaining a Uniform Motion of a Load along an Elastically Supported Membrane. <i>Acoustical Physics</i> , 2000, 46, 139.	1.0	0
93	On the Uniqueness of the Lagrangian of a Gradient Elastic Continua. <i>Advances in Mechanics and Mathematics</i> , 2010, , 149-160.	0.7	0
94	Localized stationary seismic waves predicted using a nonlinear gradient elasticity model. <i>Nonlinear Dynamics</i> , 2022, 107, 1107.	5.2	0