

Andrei Metrikine

List of Publications by Year in descending order

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94
papers

2,602
citations

186265

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48
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95
all docs

95
docs citations

95
times ranked

1162
citing authors

#	ARTICLE	IF	CITATIONS
1	Localized stationary seismic waves predicted using a nonlinear gradient elasticity model. <i>Nonlinear Dynamics</i> , 2022, 107, 1107.	5.2	0
2	A mode-matching method for the prediction of stick-slip relative motion of two elastic rods in frictional contact. <i>Acta Mechanica</i> , 2022, 233, 753-773.	2.1	2
3	Dynamic amplification in a periodic structure with a transition zone subject to a moving load: Three different phenomena. <i>Mathematics and Mechanics of Solids</i> , 2022, 27, 1740-1760.	2.4	2
4	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
5	Transition radiation in an infinite one-dimensional structure interacting with a moving oscillator—the Green's function method. <i>Journal of Sound and Vibration</i> , 2021, 492, 115804.	3.9	12
6	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
7	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
8	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
9	Study of the Sound Escape with the Use of an Air Bubble Curtain in Offshore Pile Driving. <i>Journal of Marine Science and Engineering</i> , 2021, 9, 232.	2.6	12
10	A fast computational model for near- and far-field noise prediction due to offshore pile driving. <i>Journal of the Acoustical Society of America</i> , 2021, 149, 1772-1790.	1.1	14
11	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
12	Transition radiation in a piecewise-linear and infinite one-dimensional structure—a Laplace transform method. <i>Nonlinear Dynamics</i> , 2019, 98, 2435-2461.	5.2	20
13	Dynamics of frictional systems with memory. <i>Continuum Mechanics and Thermodynamics</i> , 2019, , 1.	2.2	0
14	On the importance of soil damping for tall buildings loaded by wind. <i>Engineering Structures</i> , 2018, 163, 426-435.	5.3	8
15	Derivation and verification of a lattice model for bending vibration of a plate. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 2018, 98, 367-387.	1.6	4
16	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
17	Identification of Energy Dissipation in Structural Joints by Means of the Energy Flow Analysis. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2018, 140, .	1.6	2
18	The effect of hydrodynamics on the bending failure of level ice. <i>Cold Regions Science and Technology</i> , 2018, 153, 106-119.	3.5	13

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19	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
20	Effective stiffness method for rigid monopile foundations of offshore wind turbines and in-situ validation. <i>Procedia Engineering</i> , 2017, 199, 3248-3253.	1.2	1
21	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
22	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
23	The in-plane free vibration of an elastically supported thin ring rotating at high speeds revisited. <i>Journal of Sound and Vibration</i> , 2017, 402, 203-218.	3.9	19
24	Nonlinear model parameter identification for ice-induced vibrations. <i>Procedia Engineering</i> , 2017, 199, 583-588.	1.2	2
25	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
26	Transient calculation of pressure waves in a well induced by tubular expansion. <i>Procedia Engineering</i> , 2017, 199, 1276-1281.	1.2	2
27	Instability of an oscillator moving along a thin ring on a viscoelastic foundation. <i>Procedia Engineering</i> , 2017, 199, 2555-2560.	1.2	2
28	Structure-Borne Wave Radiation by Impact and Vibratory Piling in Offshore Installations: From Sound Prediction to Auditory Damage. <i>Journal of Marine Science and Engineering</i> , 2016, 4, 44.	2.6	17
29	A Wake Oscillator Model With Nonlinear Coupling for the VIV of Rigid Cylinder Constrained to Vibrate in the Cross-Flow Direction. , 2016, , .		1
30	Ice-induced vibrations and ice buckling. <i>Cold Regions Science and Technology</i> , 2016, 131, 129-141.	3.5	15
31	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
32	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
33	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
34	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
35	The significance of the evanescent spectrum in structure-waveguide interaction problems. <i>Journal of the Acoustical Society of America</i> , 2015, 138, 2574-2588.	1.1	10
36	Interpretation and prediction of ice induced vibrations based on contact area variation. <i>International Journal of Solids and Structures</i> , 2015, 75-76, 336-348.	2.7	18

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37	Model-based force and state estimation in experimental ice-induced vibrations by means of Kalman filtering. Cold Regions Science and Technology, 2015, 111, 13-26.	3.5	26
38	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
39	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
40	Fatigue Analysis of Subsea Jumpers due to Slug Flow. , 2014, , .		3
41	A three-dimensional vibroacoustic model for the prediction of underwater noise from offshore pile driving. Journal of Sound and Vibration, 2014, 333, 2283-2311.	3.9	34
42	Analysis of the Fatigue Life of Offshore Wind Turbine Generators Under Combined Ice- and Aerodynamic Loading. , 2014, , .		3
43	Assessing the small-strain soil stiffness for offshore wind turbines based on in situ seismic measurements. Journal of Physics: Conference Series, 2014, 524, 012088.	0.4	9
44	A semi-analytical model for the prediction of underwater noise from offshore pile driving. Journal of Sound and Vibration, 2013, 332, 3232-3257.	3.9	36
45	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
46	Dynamics of the Vertical Hydraulic Transport System for Deep Sea Mining. , 2011, , .		2
47	Identification of effective properties of the railway substructure in the low-frequency range using a heavy oscillating unit on the track. Archive of Applied Mechanics, 2010, 80, 959-968.	2.2	5
48	A wake oscillator with frequency dependent coupling for the modeling of vortex-induced vibration. Journal of Sound and Vibration, 2010, 329, 5452-5473.	3.9	103
49	Fractal Solids, Product Measures and Continuum Mechanics. Advances in Mechanics and Mathematics, 2010, , 315-323.	0.7	15
50	On the Uniqueness of the Lagrangian of Gradient Elastic Continua. Advances in Mechanics and Mathematics, 2010, , 149-160.	0.7	0
51	Destabilization of deep-water risers by a heaving platform. Journal of Sound and Vibration, 2008, 310, 541-557.	3.9	66
52	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
53	Title is missing!. Journal of Sound and Vibration, 2008, 310, 461.	3.9	1
54	Experimental investigation of dynamic stability of a cantilever pipe aspirating fluid. Journal of Fluids and Structures, 2008, 24, 541-558.	3.4	69

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55	Four simplified gradient elasticity models for the simulation of dispersive wave propagation. Philosophical Magazine, 2008, 88, 3415-3443.	1.6	81
56	Parametric Instability of a Moving Particle on a Periodically Supported Infinitely Long String. Journal of Applied Mechanics, Transactions ASME, 2008, 75, .	2.2	8
57	A Wake Oscillator With Frequency Dependent Tuning Coefficients for the Modeling of VIV. , 2008, , .		2
58	A Lattice Model to Simulate Ice-Structure Interaction. , 2008, , .		6
59	Experimental Investigation of the Dynamic Behaviour of a Water Intake Riser. , 2007, , 479.		4
60	The effect of the interface conditions on the dynamic response of a beam on a half-space to a moving load. European Journal of Mechanics, A/Solids, 2007, 26, 33-54.	3.7	52
61	Assessment of design parameters of a slab track railway system from a dynamic viewpoint. Journal of Sound and Vibration, 2007, 306, 361-371.	3.9	93
62	A new time-domain drag description and its influence on the dynamic behaviour of a cantilever pipe conveying fluid. Journal of Fluids and Structures, 2007, 23, 429-445.	3.4	44
63	An isotropic dynamically consistent gradient elasticity model derived from a 2D lattice. Philosophical Magazine, 2006, 86, 3259-3286.	1.6	54
64	Dynamic response of a two-level catenary to a moving load. Journal of Sound and Vibration, 2006, 292, 676-693.	3.9	37
65	On the energy transfer at boundaries of translating continua. Journal of Sound and Vibration, 2006, 297, 1107-1113.	3.9	3
66	On causality of the gradient elasticity models. Journal of Sound and Vibration, 2006, 297, 727-742.	3.9	87
67	Dynamic stability of a submerged, free-hanging riser conveying fluid. Journal of Sound and Vibration, 2005, 280, 1051-1065.	3.9	81
68	Stability of a two-mass oscillator moving on a beam supported by a visco-elastic half-space. International Journal of Solids and Structures, 2005, 42, 1187-1207.	2.7	47
69	Higher-order continua derived from discrete media: continualisation aspects and boundary conditions. International Journal of Solids and Structures, 2005, 42, 187-202.	2.7	76
70	Steady state response of an infinite string on a non-linear visco-elastic foundation to moving point loads. Journal of Sound and Vibration, 2004, 272, 1033-1046.	3.9	37
71	Analytical study of the dynamic response of an embedded railway track to a moving load. Archive of Applied Mechanics, 2003, 73, 131-146.	2.2	48
72	Remote detection of derailment of a wagon of a freight train: theory and experiment. Archive of Applied Mechanics, 2003, 73, 75-88.	2.2	4

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73	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
74	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
75	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
76	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
77	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
78	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
79	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
80	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
81	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
82	Drag experienced by a high-speed train due to excitation of ground vibrations. <i>International Journal of Solids and Structures</i> , 2001, 38, 8851-8868.	2.7	18
83	STEADY-STATE VIBRATIONS OF AN ELASTIC RING UNDER A MOVING LOAD. <i>Journal of Sound and Vibration</i> , 2000, 232, 511-524.	3.9	20
84	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
85	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
86	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
87	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
88	EIGENFREQUENCIES OF A TWO-MASS OSCILLATOR UNIFORMLY MOVING ALONG A STRING ON A VISCO-ELASTIC FOUNDATION. <i>Journal of Sound and Vibration</i> , 1998, 218, 103-116.	3.9	11
89	Transition radiation in an elastically supported string. Abrupt and smooth variations of the support stiffness. <i>Wave Motion</i> , 1998, 27, 291-305.	2.0	12
90	Three-Dimensional Vibrations of a Beam on an Elastic Half-Space: Resonance Interaction of Vertical-Longitudinal and Lateral Beam Waves. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1997, 64, 951-956.	2.2	18

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91	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
92	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
93	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
94	Radiation generated during the uniform motion of an object in a randomly nonuniform elastic system. <i>International Applied Mechanics</i> , 1992, 28, 582-585.	0.6	0