

# Janko SlaviÄ•

## List of Publications by Year in descending order

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Version: 2024-02-01

98  
papers

19,565  
citations

257450

24  
h-index

58581

82  
g-index

101  
all docs

101  
docs citations

101  
times ranked

28159  
citing authors

#	ARTICLE	IF	CITATIONS
1	SciPy 1.0: fundamental algorithms for scientific computing in Python. <i>Nature Methods</i> , 2020, 17, 261-272.	19.0	17,539
2	Frequency-domain methods for a vibration-fatigue-life estimation – Application to real data. <i>International Journal of Fatigue</i> , 2013, 47, 8-17.	5.7	205
3	A review of continuous contact-force models in multibody dynamics. <i>International Journal of Mechanical Sciences</i> , 2018, 145, 171-187.	6.7	141
4	Damping identification using a continuous wavelet transform: application to real data. <i>Journal of Sound and Vibration</i> , 2003, 262, 291-307.	3.9	132
5	The subpixel resolution of optical-flow-based modal analysis. <i>Mechanical Systems and Signal Processing</i> , 2017, 88, 89-99.	8.0	101
6	High frequency modal identification on noisy high-speed camera data. <i>Mechanical Systems and Signal Processing</i> , 2018, 98, 344-351.	8.0	84
7	Non-Gaussianity and non-stationarity in vibration fatigue. <i>International Journal of Fatigue</i> , 2017, 97, 9-19.	5.7	82
8	Multiaxial vibration fatigue – A theoretical and experimental comparison. <i>Mechanical Systems and Signal Processing</i> , 2016, 76-77, 409-423.	8.0	69
9	Dynamic Measurements Using FDM 3D-Printed Embedded Strain Sensors. <i>Sensors</i> , 2019, 19, 2661.	3.8	60
10	Uninterrupted and accelerated vibrational fatigue testing with simultaneous monitoring of the natural frequency and damping. <i>Journal of Sound and Vibration</i> , 2012, 331, 5370-5382.	3.9	59
11	Vibration fatigue using modal decomposition. <i>Mechanical Systems and Signal Processing</i> , 2018, 98, 548-556.	8.0	56
12	Enhancements to the continuous wavelet transform for damping identifications on short signals. <i>Mechanical Systems and Signal Processing</i> , 2004, 18, 1065-1076.	8.0	55
13	A comparison of strain and classic experimental modal analysis. <i>JVC/Journal of Vibration and Control</i> , 2016, 22, 371-381.	2.6	55
14	The mass normalization of the displacement and strain mode shapes in a strain experimental modal analysis using the mass-change strategy. <i>Journal of Sound and Vibration</i> , 2013, 332, 6968-6981.	3.9	43
15	Non-stationarity index in vibration fatigue: Theoretical and experimental research. <i>International Journal of Fatigue</i> , 2017, 104, 221-230.	5.7	42
16	Synchrosqueezed wavelet transform for damping identification. <i>Mechanical Systems and Signal Processing</i> , 2016, 80, 324-334.	8.0	39
17	Measuring full-field displacement spectral components using photographs taken with a DSLR camera via an analogue Fourier integral. <i>Mechanical Systems and Signal Processing</i> , 2018, 100, 17-27.	8.0	36
18	Frequency domain triangulation for full-field 3D operating-deflection-shape identification. <i>Mechanical Systems and Signal Processing</i> , 2019, 133, 106287.	8.0	36

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19	Typical bearing-fault rating using force measurements: application to real data. JVC/Journal of Vibration and Control, 2011, 17, 2164-2174.	2.6	34
20	Damping identification with the Morlet-wave. Mechanical Systems and Signal Processing, 2011, 25, 1632-1645.	8.0	32
21	Still-camera multiview Spectral Optical Flow Imaging for 3D operating-deflection-shape identification. Mechanical Systems and Signal Processing, 2021, 152, 107456.	8.0	28
22	A novel laboratory blanking apparatus for the experimental identification of blanking parameters. Journal of Materials Processing Technology, 2014, 214, 507-513.	6.3	27
23	Design principles for a single-process 3d-printed accelerometer – theory and experiment. Mechanical Systems and Signal Processing, 2021, 152, 107475.	8.0	26
24	Experimental modal analysis on full-field DSLR camera footage using spectral optical flow imaging. Journal of Sound and Vibration, 2018, 434, 213-220.	3.9	25
25	A new approach to roughness-induced vibrations on a slider. Journal of Sound and Vibration, 2007, 306, 732-750.	3.9	24
26	Vibration-fatigue damage accumulation for structural dynamics with non-linearities. International Journal of Mechanical Sciences, 2016, 106, 72-77.	6.7	24
27	Full-field FRF estimation from noisy high-speed-camera data using a dynamic substructuring approach. Mechanical Systems and Signal Processing, 2021, 150, 107263.	8.0	24
28	Process Parameters for FFF 3D-Printed Conductors for Applications in Sensors. Sensors, 2020, 20, 4542.	3.8	23
29	Frequency-based structural modification for the case of base excitation. Journal of Sound and Vibration, 2013, 332, 5029-5039.	3.9	22
30	Frequency Characteristics of Magnetostriction in Electrical Steel Related to the Structural Vibrations. IEEE Transactions on Magnetics, 2012, 48, 4727-4734.	2.1	20
31	A Generalized Magnetostrictive-Forces Approach to the Computation of the Magnetostriction-Induced Vibration of Laminated Steel Structures. IEEE Transactions on Magnetics, 2013, 49, 5446-5453.	2.1	20
32	Vibrational Fatigue and Structural Dynamics for Harmonic and Random Loads. Strojniski Vestnik/Journal of Mechanical Engineering, 2014, 60, 339-348.	1.1	20
33	The effort of the dynamic simulation on the fatigue damage evaluation of flexible mechanical systems loaded by non-Gaussian and non stationary loads. International Journal of Fatigue, 2017, 103, 60-72.	5.7	19
34	The use of strain sensors in an experimental modal analysis of small and light structures with free-free boundary conditions. JVC/Journal of Vibration and Control, 2013, 19, 1072-1079.	2.6	18
35	A validated model for a pin-slot clearance joint. Nonlinear Dynamics, 2017, 88, 131-143.	5.2	15
36	Vibration fatigue at half-sine impulse excitation in the time and frequency domains. International Journal of Fatigue, 2019, 123, 308-317.	5.7	15

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37	Simulating Multibody Dynamics With Rough Contact Surfaces and Run-in Wear. <i>Nonlinear Dynamics</i> , 2006, 45, 353-365.	5.2	14
38	Non-linearity and non-smoothness in multi-body dynamics: Application to woodpecker toy. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2006, 220, 285-296.	2.1	13
39	Absolute Nodal Coordinates in Digital Image Correlation. <i>Experimental Mechanics</i> , 2013, 53, 807-818.	2.0	13
40	Laser-light speckle formation for deflection-shape identification using digital image correlation. <i>Mechanical Systems and Signal Processing</i> , 2021, 161, 107899.	8.0	13
41	Damping identification based on a high-speed camera. <i>Mechanical Systems and Signal Processing</i> , 2022, 166, 108485.	8.0	13
42	Experimental validation of a complex, large-scale, rigid-body mechanism. <i>Engineering Structures</i> , 2012, 36, 220-227.	5.3	12
43	Damping heat coefficient â€“ Theoretical and experimental research on a vibrating beam. <i>Journal of Sound and Vibration</i> , 2017, 400, 13-21.	3.9	12
44	Experimental identification of the dynamic piezoresistivity of fused-filament-fabricated structures. <i>Additive Manufacturing</i> , 2020, 36, 101493.	3.0	12
45	Development of a liquid-flow pulsator. <i>Flow Measurement and Instrumentation</i> , 2012, 23, 1-8.	2.0	11
46	A thick anisotropic plate element in the framework of an absolute nodal coordinate formulation. <i>Nonlinear Dynamics</i> , 2013, 73, 183-198.	5.2	11
47	Electrical contact resistance and wear of a dynamically excited metalâ€“graphite brush. <i>Advances in Mechanical Engineering</i> , 2017, 9, 168781401769480.	1.6	11
48	Fault Detection of DC Electric Motors Using the Bispectral Analysis. <i>Meccanica</i> , 2006, 41, 283-297.	2.0	10
49	Thermoelasticity-based modal damage identification. <i>International Journal of Fatigue</i> , 2020, 137, 105661.	5.7	10
50	Full-field DIC-based model updating for localized parameter identification. <i>Mechanical Systems and Signal Processing</i> , 2022, 164, 108287.	8.0	10
51	Absolute Nodal Coordinate Formulation in a Pre-Stressed Large-Displacements Dynamical System. <i>Strojinski Vestnik/Journal of Mechanical Engineering</i> , 2017, 63, 417.	1.1	9
52	Singleâ€“Process 3Dâ€“Printed Triaxial Accelerometer. <i>Advanced Materials Technologies</i> , 2022, 7, .	5.8	9
53	Measuring the dynamic forces to identify the friction of a graphiteâ€“copper contact for variable temperature and current. <i>Wear</i> , 2006, 260, 1136-1144.	3.1	8
54	An interface force measurements-based substructure identification and an analysis of the uncertainty propagation. <i>Mechanical Systems and Signal Processing</i> , 2015, 56-57, 2-14.	8.0	8

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55	A Multi-Axis Biodynamic Measuring Handle for a Human Hand-Arm System. <i>Strojnski Vestnik/Journal of Mechanical Engineering</i> , 2013, 59, 71-80.	1.1	7
56	A Sequential Approach to the Biodynamic Modeling of a Human Finger. <i>Shock and Vibration</i> , 2017, 2017, 1-12.	0.6	7
57	Experimental research on structure-borne noise at pulse-width-modulation excitation. <i>Applied Acoustics</i> , 2018, 137, 33-39.	3.3	7
58	Piezoresistive dynamic simulations of FDM 3D-Printed embedded strain sensors: a new modal approach. <i>Procedia Structural Integrity</i> , 2019, 24, 390-397.	0.8	7
59	Single-process fused filament fabrication 3D-printed high-sensitivity dynamic piezoelectric sensor. <i>Additive Manufacturing</i> , 2022, 49, 102482.	3.0	7
60	Operational mode-shape normalisation with a structural modification for small and light structures. <i>Mechanical Systems and Signal Processing</i> , 2014, 42, 1-13.	8.0	6
61	Fatigue Damage for Sweep-Sine and Random Accelerated Vibration Testing. <i>Advances in Mechanical Engineering</i> , 2015, 7, 340545.	1.6	6
62	Spatial damping identification in the frequency domain – A theoretical and experimental comparison. <i>Journal of Sound and Vibration</i> , 2016, 376, 182-193.	3.9	6
63	The relevance of non-stationarities and non-Gaussianities in vibration fatigue. <i>MATEC Web of Conferences</i> , 2018, 165, 10011.	0.2	6
64	Short-time fatigue-life estimation for non-stationary processes considering structural dynamics. <i>International Journal of Fatigue</i> , 2021, 147, 106178.	5.7	6
65	Minimization of the positional errors for an accurate determination of the kinematic parameters of a rigid-body system with miniature inertial sensors. <i>Mechanism and Machine Theory</i> , 2014, 81, 193-208.	4.5	5
66	Strain proportional damping in Bernoulli-Euler beam theory. <i>Mechanical Systems and Signal Processing</i> , 2020, 145, 106907.	8.0	5
67	Single-process 3D-printed structures with vibration durability self-awareness. <i>Additive Manufacturing</i> , 2021, 47, 102303.	3.0	5
68	Harmonic Equivalence of the Impulse Loads in Vibration Fatigue. <i>Strojnski Vestnik/Journal of Mechanical Engineering</i> , 2019, 65, 631-640.	1.1	5
69	Design of damping layout using spatial-damping identification methods. <i>International Journal of Mechanical Sciences</i> , 2017, 127, 41-46.	6.7	4
70	An Overview of Fatigue Testing Systems for Metals under Uniaxial and Multiaxial Random Loadings. <i>Metals</i> , 2021, 11, 447.	2.3	4
71	Assessment of the Fatigue Parameters from Random Vibration Testing: Application to a Rivet Joint. <i>Strojnski Vestnik/Journal of Mechanical Engineering</i> , 2016, 62, 471-482.	1.1	4
72	Identification of Out-of-Plane Material Characteristics through Sheet-Metal Blanking. <i>Strojnski Vestnik/Journal of Mechanical Engineering</i> , 2015, 61, 217-226.	1.1	3

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73	Frequency Based Spatial Damping Identificationâ€”Theoretical and Experimental Comparison. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 23-29.	0.5	2
74	The importance of harmonic versus random excitation for a human finger. International Journal of Mechanical Sciences, 2017, 131-132, 507-515.	6.7	2
75	Accelerated Fatigue and Modal Parameter Identification of Lightweight Structures. SAE International Journal of Materials and Manufacturing, 2014, 8, 1-11.	0.3	1
76	Tuned-Sinusoidal Method for the Operational Modal Analysis of Small and Light Structures. Strojnicki Vestnik/Journal of Mechanical Engineering, 2014, 60, 187-194.	1.1	1
77	Multiaxial Fatigue Criteria for Random Stress Response â€” Theoretical and Experimental Comparison. Procedia Engineering, 2015, 101, 459-466.	1.2	1
78	Magnetostrictive and Magnetic Sources of Noise in the Electric Motors. , 0, , .		1
79	Single High-Speed Camera Based 3D Deflection Reconstruction in Frequency Domain. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 15-17.	0.5	1
80	Structural dynamics. , 2021, , 3-49.		1
81	Wear Rate vs Dynamic and Material Properties at Elevated Temperatures for a Copper-Graphite Brush. Strojnicki Vestnik/Journal of Mechanical Engineering, 2018, 64, .	1.1	1
82	Relating Vibration and Thermal Losses Using the Damping Heat Coefficient. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 89-91.	0.5	1
83	Structure-borne Noise at PWM Excitation using an Extended Field Reconstruction Method and Modal Decomposition. Strojnicki Vestnik/Journal of Mechanical Engineering, 2019, 65, 471-481.	1.1	1
84	The Development of a Surface Waviness Pattern During Brake-Like Applications. , 2010, , .		0
85	Estimating Vibration-Fatigue-Life on Experimentally Acquired Data. Key Engineering Materials, 0, 569-570, 900-907.	0.4	0
86	Non-stationarity and non-Gaussianity in Vibration Fatigue. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 73-76.	0.5	0
87	Vibration fatigue for nonstationary and non-Gaussian excitation. , 2021, , 183-192.		0
88	Uniaxial vibration fatigue. , 2021, , 99-113.		0
89	Vibration fatigue analysis using modal decomposition. , 2021, , 127-134.		0
90	Identification of nonstationary and non-Gaussian excitation. , 2021, , 135-138.		0

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91	Harmonic accelerated vibration-fatigue testing. , 2021, , 141-154.		0
92	Frequency domain methods for fatigue life estimation. , 2021, , 163-171.		0
93	Multiaxial vibration fatigue. , 2021, , 173-182.		0
94	Full-Field 3D Mode Shape Measurement Using the Multiview Spectral Optical Flow Imaging Method. Conference Proceedings of the Society for Experimental Mechanics, 2022, , 9-12.	0.5	0
95	Piezoresistive 3D Printed (FFF) Accelerometers. , 0, , .		0
96	High-Noise High-Speed Footage Data in Experimental Modal Analysis. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 23-25.	0.5	0
97	Full-Field Modal Analysis Using a DSLR Camera. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 27-30.	0.5	0
98	Frequency-Domain Triangulation of Spatial Harmonic Motion for Single-Camera Operating Deflection Shape Measurement. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 27-30.	0.5	0