

Geert Lombaert

List of Publications by Year in descending order

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200
papers

6,899
citations

50244

46
h-index

69214

77
g-index

205
all docs

205
docs citations

205
times ranked

3352
citing authors

#	ARTICLE	IF	CITATIONS
1	Dealing with uncertainty in model updating for damage assessment: A review. <i>Mechanical Systems and Signal Processing</i> , 2015, 56-57, 123-149.	4.4	335
2	An augmented Kalman filter for force identification in structural dynamics. <i>Mechanical Systems and Signal Processing</i> , 2012, 27, 446-460.	4.4	331
3	Ground-borne vibration due to static and dynamic axle loads of InterCity and high-speed trains. <i>Journal of Sound and Vibration</i> , 2009, 319, 1036-1066.	2.1	225
4	Joint input-response estimation for structural systems based on reduced-order models and vibration data from a limited number of sensors. <i>Mechanical Systems and Signal Processing</i> , 2012, 29, 310-327.	4.4	203
5	The experimental validation of a numerical model for the prediction of railway induced vibrations. <i>Journal of Sound and Vibration</i> , 2006, 297, 512-535.	2.1	199
6	Hierarchical Bayesian model updating for structural identification. <i>Mechanical Systems and Signal Processing</i> , 2015, 64-65, 360-376.	4.4	182
7	A 2.5D coupled FE-BE methodology for the dynamic interaction between longitudinally invariant structures and a layered halfspace. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2010, 199, 1536-1548.	3.4	168
8	The effect of prediction error correlation on optimal sensor placement in structural dynamics. <i>Mechanical Systems and Signal Processing</i> , 2012, 28, 105-127.	4.4	159
9	A 2.5D coupled FE-BE model for the prediction of railway induced vibrations. <i>Soil Dynamics and Earthquake Engineering</i> , 2010, 30, 1500-1512.	1.9	153
10	The control of ground-borne vibrations from railway traffic by means of continuous floating slabs. <i>Journal of Sound and Vibration</i> , 2006, 297, 946-961.	2.1	142
11	On prediction error correlation in Bayesian model updating. <i>Journal of Sound and Vibration</i> , 2013, 332, 4136-4152.	2.1	134
12	Improving interval analysis in finite element calculations by means of affine arithmetic. <i>Computers and Structures</i> , 2010, 88, 247-254.	2.4	133
13	Uncertainty quantification in operational modal analysis with stochastic subspace identification: Validation and applications. <i>Mechanical Systems and Signal Processing</i> , 2016, 66-67, 13-30.	4.4	132
14	Experimental and numerical analysis of a composite bridge for high-speed trains. <i>Journal of Sound and Vibration</i> , 2009, 320, 201-220.	2.1	130
15	Vibration serviceability of footbridges: Evaluation of the current codes of practice. <i>Engineering Structures</i> , 2014, 59, 448-461.	2.6	129
16	Prediction of vibrations induced by underground railway traffic in Beijing. <i>Journal of Sound and Vibration</i> , 2008, 310, 608-630.	2.1	124
17	Dynamic strain estimation for fatigue assessment of an offshore monopile wind turbine using filtering and modal expansion algorithms. <i>Mechanical Systems and Signal Processing</i> , 2016, 76-77, 592-611.	4.4	116
18	Numerical modelling of free field traffic-induced vibrations. <i>Soil Dynamics and Earthquake Engineering</i> , 2000, 19, 473-488.	1.9	105

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19	Joint input-state estimation in structural dynamics. <i>Mechanical Systems and Signal Processing</i> , 2016, 70-71, 445-466.	4.4	101
20	The effect of dynamic train-bridge interaction on the bridge response during a train passage. <i>Journal of Sound and Vibration</i> , 2009, 325, 240-251.	2.1	98
21	Topology optimization of fail-safe structures using a simplified local damage model. <i>Structural and Multidisciplinary Optimization</i> , 2014, 49, 657-666.	1.7	95
22	Reducing railway-induced ground-borne vibration by using open trenches and soft-filled barriers. <i>Soil Dynamics and Earthquake Engineering</i> , 2016, 88, 45-59.	1.9	84
23	Experimental validation of a numerical model for subway induced vibrations. <i>Journal of Sound and Vibration</i> , 2009, 321, 786-812.	2.1	83
24	Design of sensor networks for instantaneous inversion of modally reduced order models in structural dynamics. <i>Mechanical Systems and Signal Processing</i> , 2015, 52-53, 628-644.	4.4	77
25	Subgrade stiffening next to the track as a wave impeding barrier for railway induced vibrations. <i>Soil Dynamics and Earthquake Engineering</i> , 2013, 48, 119-131.	1.9	75
26	Finite-Element Model Updating for Assessment of Progressive Damage in a 3-Story Infilled RC Frame. <i>Journal of Structural Engineering</i> , 2013, 139, 1665-1674.	1.7	75
27	The impact of vertical human-structure interaction on the response of footbridges to pedestrian excitation. <i>Journal of Sound and Vibration</i> , 2017, 402, 104-121.	2.1	74
28	The effect of road unevenness on the dynamic vehicle response and ground-borne vibrations due to road traffic. <i>Soil Dynamics and Earthquake Engineering</i> , 2011, 31, 1357-1377.	1.9	73
29	Experimental and numerical evaluation of the effectiveness of a stiff wave barrier in the soil. <i>Soil Dynamics and Earthquake Engineering</i> , 2015, 77, 238-253.	1.9	72
30	Verification of an empirical prediction method for railway induced vibrations by means of numerical simulations. <i>Journal of Sound and Vibration</i> , 2011, 330, 1692-1703.	2.1	70
31	Efficacy of a sheet pile wall as a wave barrier for railway induced ground vibration. <i>Soil Dynamics and Earthquake Engineering</i> , 2016, 84, 55-69.	1.9	70
32	Experimental validation of a numerical prediction model for free field traffic induced vibrations by in situ experiments. <i>Soil Dynamics and Earthquake Engineering</i> , 2001, 21, 485-497.	1.9	67
33	The influence of source-receiver interaction on the numerical prediction of railway induced vibrations. <i>Journal of Sound and Vibration</i> , 2014, 333, 2520-2538.	2.1	65
34	Characterisation of walking loads by 3D inertial motion tracking. <i>Journal of Sound and Vibration</i> , 2014, 333, 5212-5226.	2.1	65
35	Ground-Borne Vibration due to Railway Traffic: A Review of Excitation Mechanisms, Prediction Methods and Mitigation Measures. <i>Notes on Numerical Fluid Mechanics and Multidisciplinary Design</i> , 2015, , 253-287.	0.2	65
36	Influence of tunnel and soil parameters on vibrations from underground railways. <i>Journal of Sound and Vibration</i> , 2009, 327, 70-91.	2.1	64

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37	Robust topology optimization of structures with imperfect geometry based on geometric nonlinear analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2015, 285, 452-467.	3.4	64
38	Robust topology optimization accounting for misplacement of material. <i>Structural and Multidisciplinary Optimization</i> , 2013, 47, 317-333.	1.7	61
39	Verification of joint input-state estimation for force identification by means of in situ measurements on a footbridge. <i>Mechanical Systems and Signal Processing</i> , 2016, 75, 245-260.	4.4	60
40	Robust design of a TMD for the vibration serviceability of a footbridge. <i>Engineering Structures</i> , 2016, 123, 408-418.	2.6	56
41	Mitigation of railway-induced vibration by using subgrade stiffening. <i>Soil Dynamics and Earthquake Engineering</i> , 2015, 79, 89-103.	1.9	55
42	Identification of axial forces in beam members by local vibration measurements. <i>Journal of Sound and Vibration</i> , 2013, 332, 5417-5432.	2.1	54
43	Mitigation of railway induced ground vibration by heavy masses next to the track. <i>Soil Dynamics and Earthquake Engineering</i> , 2015, 75, 158-170.	1.9	52
44	The experimental validation of a numerical model for the prediction of the vibrations in the free field produced by road traffic. <i>Journal of Sound and Vibration</i> , 2003, 262, 309-331.	2.1	51
45	Prediction of free field vibrations due to pile driving using a dynamic soil-structure interaction formulation. <i>Soil Dynamics and Earthquake Engineering</i> , 2007, 27, 126-143.	1.9	51
46	Uncertainty Quantification in the Assessment of Progressive Damage in a 7-Story Full-Scale Building Slice. <i>Journal of Engineering Mechanics - ASCE</i> , 2013, 139, 1818-1830.	1.6	51
47	Numerical modelling of vibrations from a Thalys high speed train in the Groene Hart tunnel. <i>Soil Dynamics and Earthquake Engineering</i> , 2010, 30, 82-97.	1.9	49
48	Optimal sensor placement for multi-setup modal analysis of structures. <i>Journal of Sound and Vibration</i> , 2017, 401, 214-232.	2.1	48
49	Dynamics of structures coupled with elastic media—A review of numerical models and methods. <i>Journal of Sound and Vibration</i> , 2013, 332, 2415-2436.	2.1	47
50	A smoothing algorithm for joint input-state estimation in structural dynamics. <i>Mechanical Systems and Signal Processing</i> , 2018, 98, 292-309.	4.4	47
51	Hybrid predictions of railway induced ground vibration using a combination of experimental measurements and numerical modelling. <i>Journal of Sound and Vibration</i> , 2016, 373, 263-284.	2.1	46
52	An efficient formulation of Krylov's prediction model for train induced vibrations based on the dynamic reciprocity theorem. <i>Journal of the Acoustical Society of America</i> , 2001, 110, 1379-1390.	0.5	39
53	Monitoring Railway Bridge KW51 Before, During, and After Retrofitting. <i>Journal of Bridge Engineering</i> , 2021, 26, .	1.4	39
54	A two-dimensional displacement-based PML for elastodynamic wave propagation. <i>International Journal for Numerical Methods in Engineering</i> , 2012, 90, 819-837.	1.5	37

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55	Interior-point methods for the phase-field approach to brittle and ductile fracture. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2021, 375, 113612.	3.4	35
56	Numerical Modelling of Traffic Induced Vibrations. <i>Meccanica</i> , 2001, 36, 401-420.	1.2	34
57	Quantification of uncertainty in the prediction of railway induced ground vibration due to the use of statistical track unevenness data. <i>Journal of Sound and Vibration</i> , 2014, 333, 4232-4253.	2.1	33
58	A hybrid model for prediction of ground-borne vibration due to discrete wheel/rail irregularities. <i>Journal of Sound and Vibration</i> , 2015, 345, 103-120.	2.1	33
59	Topology optimization of two-dimensional elastic wave barriers. <i>Journal of Sound and Vibration</i> , 2016, 376, 95-111.	2.1	33
60	Double wall barriers for the reduction of ground vibration transmission. <i>Soil Dynamics and Earthquake Engineering</i> , 2017, 97, 1-13.	1.9	33
61	Random Vibration Analysis of Dynamic Vehicle-Bridge Interaction Due to Road Unevenness. <i>Journal of Engineering Mechanics - ASCE</i> , 2012, 138, 816-825.	1.6	32
62	The coupling loss of a building subject to railway induced vibrations: Numerical modelling and experimental measurements. <i>Journal of Sound and Vibration</i> , 2019, 442, 459-481.	2.1	32
63	Uncertainty quantification in the damage assessment of a cable-stayed bridge by means of fuzzy numbers. <i>Computers and Structures</i> , 2009, 87, 1077-1084.	2.4	31
64	Observability of nonlinear systems with unmeasured inputs. <i>Mechanical Systems and Signal Processing</i> , 2019, 130, 378-394.	4.4	31
65	Numerical and Experimental Evaluation of the Dynamic Performance of a Footbridge with Tuned Mass Dampers. <i>Journal of Bridge Engineering</i> , 2016, 21, .	1.4	29
66	Contributions of longitudinal track unevenness and track stiffness variation to railway induced vibration. <i>Journal of Sound and Vibration</i> , 2018, 437, 292-307.	2.1	29
67	Scoping assessment of free-field vibrations due to railway traffic. <i>Soil Dynamics and Earthquake Engineering</i> , 2018, 114, 598-614.	1.9	29
68	Topology optimization of support structure layout in metal-based additive manufacturing accounting for thermal deformations. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 2291-2303.	1.7	28
69	The influence of the soil stratification on free field traffic-induced vibrations. <i>Archive of Applied Mechanics</i> , 2001, 71, 661-678.	1.2	26
70	Solution of moving-load-induced soil vibrations based on the Betti's-Rayleigh Dynamic Reciprocal Theorem. <i>Soil Dynamics and Earthquake Engineering</i> , 2010, 30, 470-480.	1.9	26
71	Validation of a Source-Receiver Model for Road Traffic-Induced Vibrations in Buildings. I: Source Model. <i>Journal of Engineering Mechanics - ASCE</i> , 2004, 130, 1377-1393.	1.6	25
72	Dynamic Analysis of Multispan Viaducts with Weak Coupling between Adjacent Spans. <i>Journal of Bridge Engineering</i> , 2014, 19, 83-90.	1.4	25

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73	Tracking of inputs, states and parameters of linear structural dynamic systems. <i>Mechanical Systems and Signal Processing</i> , 2019, 130, 755-775.	4.4	25
74	A methodology for cable damage identification based on wave decomposition. <i>Journal of Sound and Vibration</i> , 2019, 442, 527-551.	2.1	25
75	Prediction of vibrations induced by trains on line 8 of Beijing metro. <i>Journal of Zhejiang University: Science A</i> , 2010, 11, 280-293.	1.3	24
76	A novel shape optimization approach for strained gridshells: Design and construction of a simply supported gridshell. <i>Engineering Structures</i> , 2019, 192, 166-180.	2.6	24
77	The influence of the depth of the ground water table on free field road traffic-induced vibrations. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , 2004, 28, 395-419.	1.7	23
78	Modal characteristics of structures considering dynamic soil-structure interaction effects. <i>Soil Dynamics and Earthquake Engineering</i> , 2018, 105, 114-118.	1.9	23
79	The effectiveness of a pile barrier for vibration transmission in a soil stratum over a rigid bedrock. <i>Computers and Geotechnics</i> , 2019, 110, 274-286.	2.3	23
80	Offline synchronization of data acquisition systems using system identification. <i>Journal of Sound and Vibration</i> , 2016, 381, 264-272.	2.1	22
81	Stabil: An educational Matlab toolbox for static and dynamic structural analysis. <i>Computer Applications in Engineering Education</i> , 2021, 29, 1372-1389.	2.2	21
82	The simulation of the impact damage to fruit during the passage of a truck over a speed bump by means of the discrete element method. <i>Biosystems Engineering</i> , 2008, 101, 58-68.	1.9	19
83	Prediction of vibrations from underground trains on Beijing metro line 15. <i>Central South University</i> , 2010, 17, 1109-1118.	0.5	19
84	Combined length scale and overhang angle control in minimum compliance topology optimization for additive manufacturing. <i>Structural and Multidisciplinary Optimization</i> , 2019, 59, 2005-2022.	1.7	19
85	Local and global shape functions in a boundary element formulation for the calculation of traffic induced vibrations. <i>Soil Dynamics and Earthquake Engineering</i> , 2005, 25, 839-856.	1.9	18
86	Optimal sensor placement methods and metrics " comparison and implementation on a timber frame structure. <i>Structure and Infrastructure Engineering</i> , 2018, 14, 997-1010.	2.0	18
87	Periodic track model for the prediction of railway induced vibration due to parametric excitation. <i>Transportation Geotechnics</i> , 2018, 17, 98-108.	2.0	18
88	A probabilistic assessment of resolution in the SASW test and its impact on the prediction of ground vibrations. <i>Geophysical Journal International</i> , 2008, 172, 262-275.	1.0	17
89	Identification and Modelling of Vertical Human-Structure Interaction. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2015, , 319-330.	0.3	17
90	Localization of dynamic forces on structures with an interior point method using group sparsity. <i>Mechanical Systems and Signal Processing</i> , 2019, 115, 593-606.	4.4	17

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91	A two-step FEM-SEM approach for wave propagation analysis in cable structures. <i>Journal of Sound and Vibration</i> , 2018, 415, 41-58.	2.1	16
92	A track model for railway-induced ground vibration resulting from a transition zone. <i>Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit</i> , 2018, 232, 1703-1717.	1.3	15
93	Shape optimized inclined single and double wall wave barriers for ground vibration mitigation. <i>Soil Dynamics and Earthquake Engineering</i> , 2018, 112, 215-231.	1.9	15
94	Robust vibration serviceability assessment of footbridges subjected to pedestrian excitation: strategy and applications. <i>Engineering Structures</i> , 2018, 171, 236-246.	2.6	15
95	Bayesian decision analysis for the optimization of inspection and repair of spatially degrading concrete structures. <i>Engineering Structures</i> , 2020, 220, 111028.	2.6	15
96	A two-step methodology for cable force identification. <i>Journal of Sound and Vibration</i> , 2020, 472, 115201.	2.1	15
97	The wave propagation in a beam on a random elastic foundation. <i>Probabilistic Engineering Mechanics</i> , 2007, 22, 150-158.	1.3	14
98	Coupled finite element - hierarchical boundary element methods for dynamic soil-structure interaction in the frequency domain. <i>International Journal for Numerical Methods in Engineering</i> , 2014, 97, 505-530.	1.5	14
99	Mixed-integer linear programming approach for global discrete sizing optimization of frame structures. <i>Structural and Multidisciplinary Optimization</i> , 2018, 57, 579-593.	1.7	14
100	Inverse estimation of breaking wave loads on monopile wind turbines. <i>Ocean Engineering</i> , 2018, 163, 544-554.	1.9	14
101	Assessment of corroded prestressed and posttensioned concrete structures: A review. <i>Structural Concrete</i> , 2021, 22, 2556-2580.	1.5	14
102	The Green's functions of a vertically inhomogeneous soil with a random dynamic shear modulus. <i>Probabilistic Engineering Mechanics</i> , 2007, 22, 100-111.	1.3	13
103	Application of the Coupled Local Minimizers Method to the Optimization Problem in the Spectral Analysis of Surface Waves Method. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2008, 134, 1541-1553.	1.5	13
104	Global Size Optimization of Statically Determinate Trusses Considering Displacement, Member, and Joint Constraints. <i>Journal of Structural Engineering</i> , 2016, 142, 04015120.	1.7	13
105	Pedestrian-Induced Vibrations of Footbridges: An Extended Spectral Approach. <i>Journal of Bridge Engineering</i> , 2020, 25, .	1.4	13
106	On the equivalence of dynamic relaxation and the Newton-Raphson method. <i>International Journal for Numerical Methods in Engineering</i> , 2018, 113, 1531-1539.	1.5	12
107	Motion tracking of a wind turbine blade during lifting using RTK-GPS/INS. <i>Engineering Structures</i> , 2018, 172, 285-292.	2.6	12
108	Model updating of periodic structures based on free wave characteristics. <i>Journal of Sound and Vibration</i> , 2019, 442, 281-307.	2.1	12

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109	Resonant multiple wave scattering in the seismic response of a city. <i>Waves in Random and Complex Media</i> , 2006, 16, 205-230.	1.6	11
110	Experimental and numerical prediction of railway induced vibration. <i>Journal of Zhejiang University: Science A</i> , 2012, 13, 802-813.	1.3	11
111	Wind-structure interaction simulations of ovaling vibrations in silo groups. <i>Journal of Fluids and Structures</i> , 2015, 59, 328-350.	1.5	11
112	Quantifying dynamic soil-structure interaction for railway induced vibrations. <i>Procedia Engineering</i> , 2017, 199, 2372-2377.	1.2	11
113	A study of modelling simplifications in ground vibration predictions for railway traffic at grade. <i>Journal of Sound and Vibration</i> , 2017, 406, 208-223.	2.1	11
114	Human-Induced Vibrations of Footbridges: The Effect of Vertical Human-Structure Interaction. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2016, , 299-307.	0.3	11
115	Model reduction for dynamical systems with quadratic output. <i>International Journal for Numerical Methods in Engineering</i> , 2012, 91, 229-248.	1.5	10
116	A spatial windowing technique to account for finite dimensions in 2.5D dynamic soil-structure interaction problems. <i>Soil Dynamics and Earthquake Engineering</i> , 2014, 59, 51-67.	1.9	10
117	Application of hierarchical matrices to boundary element methods for elastodynamics based on Green's functions for a horizontally layered halfspace. <i>Engineering Analysis With Boundary Elements</i> , 2013, 37, 1745-1758.	2.0	9
118	The influence of uncertain local subsoil conditions on the response of buildings to ground vibration. <i>Journal of Sound and Vibration</i> , 2018, 418, 200-220.	2.1	9
119	A Bayesian inference approach for the updating of spatially distributed corrosion model parameters based on heterogeneous measurement data. <i>Structure and Infrastructure Engineering</i> , 2022, 18, 30-46.	2.0	9
120	A hybrid gradient-based/metaheuristic method for Eurocode-compliant size, shape and topology optimization of steel structures. <i>Engineering Structures</i> , 2021, 239, 112137.	2.6	9
121	The non-stationary freefield response for a moving load with a random amplitude. <i>Journal of Sound and Vibration</i> , 2004, 278, 611-635.	2.1	8
122	Numerical evaluation of the dynamic response of pipelines to vibrations induced by the operation of a pavement breaker. <i>Soil Dynamics and Earthquake Engineering</i> , 2013, 44, 153-167.	1.9	8
123	The influence of out-of-band modes in system inversion. <i>Mechanical Systems and Signal Processing</i> , 2019, 115, 173-187.	4.4	8
124	A unified sampling-based framework for optimal sensor placement considering parameter and prediction inference. <i>Mechanical Systems and Signal Processing</i> , 2021, 161, 107950.	4.4	8
125	Sound absorption of stretched ceilings with an impervious synthetic membrane. <i>Journal of the Acoustical Society of America</i> , 1999, 106, 233-239.	0.5	7
126	Unsteady Reynolds averaged Navier-Stokes simulation of the post-critical flow around a closely spaced group of silos. <i>Journal of Fluids and Structures</i> , 2012, 30, 51-72.	1.5	7

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127	Multimodal determination of Rayleigh dispersion and attenuation curves using the circle fit method. <i>Geophysical Journal International</i> , 2018, 212, 2143-2158.	1.0	7
128	Reducing Railway Induced Ground-Borne Vibration by Using Trenches and Buried Soft Barriers. <i>Notes on Numerical Fluid Mechanics and Multidisciplinary Design</i> , 2015, , 555-562.	0.2	7
129	Elastodynamic wave scattering by finite-sized resonant scatterers at the surface of a horizontally layered halfspace. <i>Journal of the Acoustical Society of America</i> , 2009, 125, 2041-2052.	0.5	6
130	The optimal design of a barrel vault in the conceptual design stage. <i>Computers and Structures</i> , 2012, 92-93, 308-316.	2.4	6
131	Continuous strain prediction for fatigue assessment of an offshore wind turbine using Kalman filtering techniques. , 2015, , .		6
132	Observability of modally reduced order models with unknown parameters. <i>Mechanical Systems and Signal Processing</i> , 2021, 146, 106993.	4.4	6
133	Stiff Wave Barriers for the Mitigation of Railway Induced Vibrations. <i>Notes on Numerical Fluid Mechanics and Multidisciplinary Design</i> , 2015, , 539-546.	0.2	6
134	Dynamic soil-structure interaction analysis of a telescope at the Javalambre Astrophysical Observatory. <i>Soil Dynamics and Earthquake Engineering</i> , 2014, 65, 165-180.	1.9	5
135	Reduced-order models for vertical human-structure interaction. <i>Journal of Physics: Conference Series</i> , 2016, 744, 012030.	0.3	5
136	A fast and accurate dynamic relaxation approach for form-finding and analysis of bending-active structures. <i>International Journal of Space Structures</i> , 2019, 34, 40-53.	0.3	5
137	p-Refined Multilevel Quasi-Monte Carlo for Galerkin Finite Element Methods with Applications in Civil Engineering. <i>Algorithms</i> , 2020, 13, 110.	1.2	5
138	Influence of the correlation model on the failure probability of a reinforced concrete structure considering spatial variability. <i>Structure and Infrastructure Engineering</i> , 2023, 19, 510-524.	2.0	5
139	A 2.5D Coupled FE-BE Methodology for the Prediction of Railway Induced Vibrations. <i>Notes on Numerical Fluid Mechanics and Multidisciplinary Design</i> , 2012, , 367-374.	0.2	5
140	Topology optimization of damage-resistant structures with a predefined load-bearing capacity. <i>International Journal for Numerical Methods in Engineering</i> , 2022, 123, 1114-1145.	1.5	5
141	Uncertainty Quantification for Force Identification and Response Estimation in Structural Dynamics. , 2017, , 157-174.		4
142	Density filtering regularization of finite element model updating problems. <i>Mechanical Systems and Signal Processing</i> , 2019, 128, 282-294.	4.4	4
143	A dissipation-based path-following technique for the phase-field approach to brittle and ductile fracture. <i>International Journal for Numerical Methods in Engineering</i> , 2021, 122, 3919-3940.	1.5	4
144	Modal analysis of coupled soil-structure systems. <i>Soil Dynamics and Earthquake Engineering</i> , 2021, 144, 106645.	1.9	4

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145	Designing bending-active gridshells as falsework for concrete shells through numerical optimization. <i>Engineering Structures</i> , 2021, 240, 112352.	2.6	4
146	Damage Identification of a Three-Story Infilled RC Frame Tested on the UCSD-NEES Shake Table. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2011, , 145-154.	0.3	4
147	Vibration Mitigation by Innovative Low Stiffness Rail Fastening Systems for Ballasted Track. <i>Notes on Numerical Fluid Mechanics and Multidisciplinary Design</i> , 2015, , 627-634.	0.2	4
148	Railway bridge dynamics: development of a new high-speed train load model for dynamic analyses of train crossing. , 2021, , .		4
149	The Structural Behavior of a Composite Bridge During the Passage of High-Speed Trains. <i>Structural Engineering International: Journal of the International Association for Bridge and Structural Engineering (IABSE)</i> , 2009, 19, 427-431.	0.5	3
150	Computational aspects of simulating wind induced ovaling vibrations in silo groups. <i>Journal of Computational and Applied Mathematics</i> , 2013, 246, 161-173.	1.1	3
151	Bayesian Parameter Estimation. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , 2016, , 89-115.	0.3	3
152	Validation of time-delayed recursive force identification in structural dynamics. <i>Procedia Engineering</i> , 2017, 199, 2154-2159.	1.2	3
153	Optimization in a realistic structural engineering context: Redesign of the Market Hall in Ghent. <i>Engineering Structures</i> , 2021, 228, 111473.	2.6	3
154	Validation of virtual sensing for the fatigue assessment of steel railway bridges. , 2021, , 297-304.		3
155	The Influence of the Train Speed on Vibrations Due to High Speed Trains. , 2008, , 19-25.		3
156	Online Response Estimation in Structural Dynamics. , 2014, , 1-11.		3
157	A SHEET PILING WALL AS A WAVE BARRIER FOR TRAIN INDUCED VIBRATIONS. , 2014, , .		3
158	Long-term vibration monitoring on railway bridge KW51 in Leuven, Belgium. , 2021, , .		3
159	Prediction of diffuse sound transmission through finite-sized periodic structures. <i>Journal of Sound and Vibration</i> , 2022, 528, 116851.	2.1	3
160	Development and experimental validation of a numerical model for the prediction of ground vibration generated by pavement breaking. <i>Soil Dynamics and Earthquake Engineering</i> , 2015, 79, 199-210.	1.9	2
161	Simulation of Human-induced Vibrations Based on the Characterized In-field Pedestrian Behavior. <i>Journal of Visualized Experiments</i> , 2016, , .	0.2	2
162	Experimental verification of optimal sensor placement for multi-setup modal testing. <i>Procedia Engineering</i> , 2017, 199, 1068-1073.	1.2	2

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163	Inverse identification of the pedestrian characteristics governing human-structure interaction. <i>Procedia Engineering</i> , 2017, 199, 2889-2894.	1.2	2
164	On the Use of a Domain Decomposition Strategy in Obtaining Response Statistics in Non-Gaussian Seas. <i>Fluids</i> , 2021, 6, 28.	0.8	2
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