Pedro GalvÃ-n

List of Publications by Year
in descending order

70	1,790	331642 21	276858 41
papers	citations	h-index	g-index

75	75	75	941
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	On the vertical coupling effect of ballasted tracks in multiâ€“span simplyâ€“supported railway bridges under operating conditions. Structure and Infrastructure Engineering, 2023, 19, 1633-1655.	3.7	9
2	Fast simulation of railway bridge dynamics accounting for soilâ€“structure interaction. Bulletin of Earthquake Engineering, 2022, 20, 3195-3213.	4.1	7
3	Theoretical and experimental analysis of the quasi-static and dynamic behaviour of the world's longest suspension footbridge in 2020. Engineering Structures, 2022, 253, 113830.	5.3	4
4	Analytical forecasting of long-term railway track settlement. Computers and Geotechnics, 2022, 143, 104601.	4.7	24
5	A novel high-performance quadrature rule for BEM formulations. Engineering Analysis With Boundary Elements, 2022, 140, 607-617.	3.7	2
6	Wavelet analysis of static deflections for multiple damage identification in beams. Mechanical Systems and Signal Processing, 2021, 147, 107103.	8.0	17
7	On the dynamic characterisation of railway bridges through experimental testing. Engineering Structures, 2021, 226, 111261.	5.3	19
8	Energy harvesting analysis in railway bridges: An approach based on modal decomposition. Mechanical Systems and Signal Processing, 2021, 160, 107848.	8.0	17
9	Ballasted track interaction effects in railway bridges with simply-supported spans composed by adjacent twin single-track decks. Engineering Structures, 2021, 247, 113062.	5.3	7
10	A transfer function method to predict building vibration and its application to railway defects. Construction and Building Materials, 2020, 232, 117217.	7.2	28
11	Maximum resonance and cancellation phenomena in orthotropic plates traversed by moving loads: Application to railway bridges. International Journal of Mechanical Sciences, 2020, 169, 105316.	6.7	12
12	An accurate treatment of non-homogeneous boundary conditions for development of the BEM. Engineering Analysis With Boundary Elements, 2020, 116, 93-101.	3.7	5
13	VERTICAL COUPLING EFFECT OF THE BALLASTED TRACK ON THE DYNAMIC BEHAVIOR OF MULTITRACK RAILWAY BRIDGES COMPOSED BY ADJACENT DECKS. , 2020, , .		2
14	Effect of the end cross beams on the railway induced vibrations of short girder bridges. Engineering Structures, 2019, 201, 109728.	5.3	2
15	Scoping assessment of ground and building vibrations due to railway traffic. , 2019, , 283-317.		0
16	Acoustic waves scattered by elastic waveguides using a spectral approach with a 2.5D coupled boundary-finite element method. Engineering Analysis With Boundary Elements, 2019, 106, 47-58.	3.7	1
17	On the formulation of a BEM in the BÃ©zierâ€“Bernstein space for the solution of Helmholtz equation. Applied Mathematical Modelling, 2019, 74, 301-319.	4.2	4
18	Fiber Bragg grating application to study an unmanned aerial system composite wing. Journal of Intelligent Material Systems and Structures, 2019, 30, 1252-1262.	2.5	5

#	Article	IF	Citations
19	A 2.5D time-frequency domain model for railway induced soil-building vibration due to railway defects. Soil Dynamics and Earthquake Engineering, 2019, 120, 332-344.	3.8	31
20	A BEM BASED ON THE BÃ‰ZIER/BERNSTEIN POLYNOMIAL FOR ACOUSTIC WAVEGUIDE MODELIZATION. WIT Transactions on Engineering Sciences, 2019, , .	0.0	0
21	A 2.5D BEM-FEM USING A SPECTRAL APPROACH TO STUDY SCATTERED WAVES IN FLUIDâ€“SOLID INTERACTION PROBLEMS. WIT Transactions on Engineering Sciences, 2019, , .	0.0	0
22	Damage detection in beams from modal and wavelet analysis using a stationary roving mass and noise estimation. Strain, 2018, 54, e12266.	2.4	17
23	Low weight additive manufacturing FBG accelerometer: Design, characterization and testing. Measurement: Journal of the International Measurement Confederation, 2018, 117, 295-303.	5.0	36
24	Two FE models to analyse the dynamic response of short span simply-supported oblique high-speed railway bridges: Comparison and experimental validation. Engineering Structures, 2018, 167, 48-64.	5.3	19
25	A novel 2.5D spectral approach for studying thin-walled waveguides with fluid-acoustic interaction. Computers and Structures, 2018, 204, 1-19.	4.4	1
26	Scoping assessment of free-field vibrations due to railway traffic. Soil Dynamics and Earthquake Engineering, 2018, 114, 598-614.	3.8	29
27	Effect of soil properties on the dynamic response of simply-supported bridges under railway traffic through coupled boundary element-finite element analyses. Engineering Structures, 2018, 170, 78-90.	5.3	12
28	Experimental Analysis of Arroyo Bracea II Bridge in Madrid â€“ Sevilla High-Speed Railway Line: Dynamic Response of the Structure and Effect of Soil Properties. Lecture Notes in Civil Engineering, 2018, , 882-892.	0.4	0
29	Modeling elastic wave propagation in fluid-filled boreholes drilled in nonhomogeneous media: BEM-MLPG versus BEM-FEM coupling. Engineering Analysis With Boundary Elements, 2017, 81, 1-11.	3.7	5
30	Scoping assessment of building vibration induced by railway traffic. Soil Dynamics and Earthquake Engineering, 2017, 93, 147-161.	3.8	43
31	Modelling of acoustic and elastic wave propagation from underground structures using a 2.5D BEM-FEM approach. Engineering Analysis With Boundary Elements, 2017, 76, 26-39.	3.7	26
32	A 2.5D spectral approach to represent acoustic and elastic waveguides interaction on thin slab structures. Procedia Engineering, 2017, 199, 1374-1379.	1.2	2
33	Investigation of the dynamic response and effect of soil properties of Arroyo Bracea II bridge in Madrid-Sevilla High-Speed railway line through experimental analyses. Procedia Engineering, 2017, 199, 3021-3026.	1.2	0
34	Scoping methodology to asses induced vibration by railway traffic in buildings. Procedia Engineering, 2017, 199, 2717-2722.	1.2	1
35	Dynamic characterisation of wind turbine towers account for a monopile foundation and different soil conditions. Structure and Infrastructure Engineering, 2017, 13, 942-954.	3.7	20
36	On the basic phenomenon of soil-structure interaction on the free vibration response of beams: Application to railway bridges. Engineering Structures, 2016, 125, 254-265.	5.3	20

#	Article	IF	Citations
37	Analysis of stationary roving mass effect for damage detection in beams using wavelet analysis of mode shapes. Journal of Physics: Conference Series, 2015, 628, 012014.	0.4	2
38	Large scale international testing of railway ground vibrations across Europe. Soil Dynamics and Earthquake Engineering, 2015, 71, 1-12.	3.8	103
39	2.5D coupled BEM-FEM used to model fluid and solid scattering wave. International Journal for Numerical Methods in Engineering, 2015, 101, 148-164.	2.8	18
40	Soilâ€“structure interaction effects on the resonant response of railway bridges under high-speed traffic. International Journal of Rail Transportation, 2015, 3, 201-214.	2.7	7
41	A BEMâ€“FEM using layered half-space Green×³s function in time domain for SSI analyses. Engineering Analysis With Boundary Elements, 2015, 55, 93-103.	3.7	8
42	A SSI NUMERICAL MODEL FOR LAYERED SOILS USING A BEM-FEM FORMULATION IN TIME DOMAIN. , 2015, , .		0
43	A MATLAB toolbox for soilâ€“structure interaction analysis with finite and boundary elements. Soil Dynamics and Earthquake Engineering, 2014, 57, 10-14.	3.8	29
44	A 3D time domain numerical model based on half-space Greenâ€™s function for soilâ€“structure interaction analysis. Computational Mechanics, 2014, 53, 1073-1085.	4.0	19
45	Dynamic soilâ€“structure interaction analysis of a telescope at the Javalambre Astrophysical Observatory. Soil Dynamics and Earthquake Engineering, 2014, 65, 165-180.	3.8	5
46	Quantification of uncertainty in the prediction of railway induced ground vibration due to the use of statistical track unevenness data. Journal of Sound and Vibration, 2014, 333, 4232-4253.	3.9	33
47	Enhanced Modal Wavelet Analysis for Damage Detection in Beams. Conference Proceedings of the Society for Experimental Mechanics, 2014, , 317-323.	0.5	1
48	Soilâ€“structure interaction in resonant railway bridges. Soil Dynamics and Earthquake Engineering, 2013, 47, 108-116.	3.8	47
49	3D non-linear time domain FEMâ€“BEM approach to soilâ€“structure interaction problems. Engineering Analysis With Boundary Elements, 2013, 37, 501-512.	3.7	51
50	Continuous wavelet analysis of mode shapes differences for damage detection. Mechanical Systems and Signal Processing, 2013, 40, 645-666.	8.0	103
51	Teaching Structural Analysis through Design, Building, and Testing. Journal of Professional Issues in Engineering Education and Practice, 2012, 138, 246-253.	0.9	9
52	A Comparison of Predicted and Measured Ground Vibrations due to High Speed, Passenger, and Freight Trains. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2012, , 231-238.	0.3	2
53	A 2.5D Coupled FE-BE Methodology for the Prediction of Railway Induced Vibrations. Notes on Numerical Fluid Mechanics and Multidisciplinary Design, 2012, , 367-374.	0.3	5
54	A time domain analysis of train induced vibrations. Earthquake and Structures, 2012, 3, 297-313.	1.0	2

#	ARTICLE	IF	CITATIONS
55	Fully three-dimensional analysis of high-speed trainâ€“trackâ€“soil-structure dynamic interaction. Journal of Sound and Vibration, 2010, 329, 5147-5163.	3.9	207
56	Vibrations induced by HST passage on ballast and non-ballast tracks. Soil Dynamics and Earthquake Engineering, 2010, 30, 862-873.	3.8	87
57	A 2.5D coupled FE-BE model for the prediction of railway induced vibrations. Soil Dynamics and Earthquake Engineering, 2010, 30, 1500-1512.	3.8	153
58	A 2.5D coupled FEâ€“BE methodology for the dynamic interaction between longitudinally invariant structures and a layered halfspace. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 1536-1548.	6.6	168
59	Monitoring the Mechanical Behavior of the Weathervane Sculpture Mounted Atop Seville Cathedralâ€™s Giralda Tower. Structural Health Monitoring, 2010, 9, 41-57.	7.5	7
60	A 3D Numerical Mode for HST Induced Vibrations. Noise and Vibration Worldwide, 2010, 41, 9-15.	1.0	0
61	Experimental and numerical analyses of vibrations induced by high-speed trains on the CÃ³rdobaâ€“MÃ¡laga line. Soil Dynamics and Earthquake Engineering, 2009, 29, 641-657.	3.8	129
62	Analysis of ground motion due to moving surface loads induced by high-speed trains. Engineering Analysis With Boundary Elements, 2007, 31, 931-941.	3.7	69
63	High-speed train-induced ground motion and interaction with structures. Journal of Sound and Vibration, 2007, 307, 755-777.	3.9	53
64	Dynamic analysis of a cable-stayed deck steel arch bridge. Journal of Constructional Steel Research, 2007, 63, 1024-1035.	3.9	24
65	Crack Location in Beams Using Wavelet Analysis. Key Engineering Materials, 0, 569-570, 1021-1028.	0.4	1
66	Induced Vibrations because of High-Speed Train Passage on Ballast and Non-Ballast Tracks. , 0, , .		0
67	A Time Domain Boundary Element-Finite Element Coupling Approach based on the Finite Element Implicit Green's Functions for Induced Vibrations from High-Speed Trains. , 0, , .		0
68	Analysis of Resonant Railway Bridges Considering Soil-Structure Dynamic Interaction. , 0, , .		0
69	High-Speed Train Induced Vibrations: A Comprehensive BE Model. , 0, , .		0
70	ANALYSIS OF THE INFLUENCE OF THE BALLAST TRACK IN THE DYNAMIC BEHAVIOUR OF SINGLE-TRACK RAILWAY BRIDGES OF DIFFERENT TYPOLOGIES. , 0, , .		0