Philippe Gueguen

List of Publications by Year
in descending order

96 papers	2,948 citations	172386 29 h-index	197736 49 g-index
112 all docs	112 docs citations	112 times ranked	2199 citing authors

#	Article	IF	Citations
1	Forests as a natural seismic metamaterial: Rayleigh wave bandgaps induced by local resonances. Scientific Reports, 2016, 6, 19238.	1.6	251
2	Environmental seismology: What can we learn on earth surface processes with ambient noise?. Journal of Applied Geophysics, 2015, 116, 62-74.	0.9	131
3	Dynamic parameters of structures extracted from ambient vibration measurements: An aid for the seismic vulnerability assessment of existing buildings in moderate seismic hazard regions. Soil Dynamics and Earthquake Engineering, 2008, 28, 593-604.	1.9	121
4	Evaluation of the influence of experimental conditions on H/V results from ambient noise recordings. Bulletin of Earthquake Engineering, 2008, 6, 33-74.	2.3	112
5	Site-City Seismic Interaction in Mexico City-Like Environments: An Analytical Study. Bulletin of the Seismological Society of America, 2002, 92, 794-811.	1.1	111
6	vS30, Îº, regional attenuation and Mw from accelerograms: application to magnitude 3-5 French earthquakes. Geophysical Journal International, 0, 182, 880-898.	1.0	100
7	On the Limitation of the H/V Spectral Ratio Using Seismic Noise as an Exploration Tool: Application to the Grenoble Valley (France), a Small Apex Ratio Basin. Pure and Applied Geophysics, 2007, 164, 115-134.	0.8	95
8	The Engineering Strongâ€Motion Database: A Platform to Access Panâ€European Accelerometric Data. Seismological Research Letters, 2016, 87, 987-997.	0.8	90
9	On the Testing of Ground-Motion Prediction Equations against Small-Magnitude Data. Bulletin of the Seismological Society of America, 2012, 102, 1994-2007.	1.1	74
10	Time-Frequency Analysis of Small Frequency Variations in Civil Engineering Structures Under Weak and Strong Motions Using a Reassignment Method. Structural Health Monitoring, 2010, 9, 159-171.	4.3	70
11	CityShark: A User-friendly Instrument Dedicated to Ambient Noise (Microtremor) Recording for Site and Building Response Studies. Seismological Research Letters, 2000, 71, 698-703.	0.8	67
12	Seismic noise-based methods for soft-rock landslide characterization. Bulletin - Societie Geologique De France, 2007, 178, 137-148.	0.9	67
13	A simplified approach for vulnerability assessment in moderate-to-low seismic hazard regions: application to Grenoble (France). Bulletin of Earthquake Engineering, 2007, 5, 467-490.	2.3	67
14	Seismic vulnerability assessment of urban environments in moderate-to-low seismic hazard regions using association rule learning and support vector machine methods. Natural Hazards, 2015, 76, 1111-1141.	1.6	67
15	The Analysis of Longâ€Term Frequency and Damping Wandering in Buildings Using the Random Decrement Technique. Bulletin of the Seismological Society of America, 2013, 103, 236-246.	1.1	66
16	The French Accelerometric Network (RAP) and National Data Centre (RAP-NDC). Seismological Research Letters, 2008, 79, 79-89.	0.8	63
17	Can Strong-Motion Observations be Used to Constrain Probabilistic Seismic-Hazard Estimates?. Bulletin of the Seismological Society of America, 2008, 98, 509-520.	1.1	60
18	Site effect and damage distribution in Pujili (Ecuador) after the 28 March 1996 earthquake. Soil Dynamics and Earthquake Engineering, 1998, 17, 329-334.	1.9	53

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19	In SituAssessment of theGâ€“Î³Curve for Characterizing the Nonlinear Response of Soil: Application to the Garner Valley Downhole Array and the Wildlife Liquefaction Array. Bulletin of the Seismological Society of America, 2015, 105, 993-1010.	1.1	52
20	Comparison between seismic vulnerability models and experimental dynamic properties of existing buildings in France. Bulletin of Earthquake Engineering, 2010, 8, 1295-1307.	2.3	51
21	Nonlinear Elasticity Observed in Buildings during a Long Sequence of Earthquakes. Bulletin of the Seismological Society of America, 2018, 108, 1185-1198.	1.1	48
22	An indication of the soil topmost layer response in Quito (Ecuador) using noise H/V spectral ratio. Soil Dynamics and Earthquake Engineering, 2000, 19, 127-133.	1.9	45
23	SOIL-STRUCTURE AND SOIL-STRUCTURE-SOIL INTERACTION: EXPERIMENTAL EVIDENCE AT THE VOLVI TEST SITE. Journal of Earthquake Engineering, 2005, 9, 657-693.	1.4	45
24	Experimental and Numerical Analysis of Soil Motions Caused by Free Vibrations of a Building Model. Bulletin of the Seismological Society of America, 2000, 90, 1464-1479.	1.1	44
25	PGA-PGV/Vs considered as a stressâ€“strain proxy for predicting nonlinear soil response. Soil Dynamics and Earthquake Engineering, 2016, 85, 146-160.	1.9	42
26	Toward Seismic Metamaterials: The METAFORET Project. Seismological Research Letters, 2018, 89, 582-593.	0.8	42
27	Fullâ€scale dynamic response of an RC building under weak seismic motions using earthquake recordings, ambient vibrations and modelling. Earthquake Engineering and Structural Dynamics, 2010, 39, 419-441.	2.5	41
28	Experimental and Numerical Evidence of the Clustering Effect of Structures on Their Response during an Earthquake: A Case Study of Three Identical Towers in the City of Grenoble, France. Bulletin of the Seismological Society of America, 2016, 106, 2855-2864.	1.1	37
29	Monitoring Coseismic Temporal Changes of Shallow Material during Strong Ground Motion with Interferometry and Autocorrelation. Bulletin of the Seismological Society of America, 2019, 109, 187-198.	1.1	36
30	Period elongation-based framework for operative assessment of the variation of seismic vulnerability of reinforced concrete buildings during aftershock sequences. Soil Dynamics and Earthquake Engineering, 2016, 84, 224-237.	1.9	31
31	Nonlinear dynamics induced in a structure by seismic and environmental loading. Journal of the Acoustical Society of America, 2016, 140, 582-590.	0.5	30
32	Ambient noise energy bursts observation and modeling: Trapping of harmonic structure-soil induced?waves in a topmost sedimentary layer. Journal of Seismology, 2004, 8, 507-524.	0.6	29
33	Seismic vulnerability assessment using association rule learning: application to the city of Constantine, Algeria. Natural Hazards, 2017, 86, 1223-1245.	1.6	29
34	Structural-change localization and monitoring through a perturbation-based inverse problem. Journal of the Acoustical Society of America, 2014, 136, 2586-2597.	0.5	25
35	Ambient Vibration Recording for Single-Station, Array and Building Studies Made Simple: CityShark II. International Journal of Geosciences, 2012, 03, 1168-1175.	0.2	25
36	Testing probabilistic seismic hazard estimates against accelerometric data in two countries: France and Turkey. Geophysical Journal International, 2014, 198, 1554-1571.	1.0	24

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37	Predicting Nonlinear Site Response Using Spectral Acceleration Vs PGV/Vs30: A Case History Using the Volvi-Test Site. Pure and Applied Geophysics, 2016, 173, 2047-2063.	0.8	23
38	Comparison of Soil Nonlinearity (In SituStressâ€“Strain Relation and G/Gmax Reduction) Observed in Strongâ€Motion Databases and Modeled in Groundâ€Motion Prediction Equations. Bulletin of the Seismological Society of America, 2019, 109, 178-186.	1.1	23
39	Interpretation of the velocity measured in buildings by seismic interferometry based on Timoshenko beam theory under weak and moderate motion. Soil Dynamics and Earthquake Engineering, 2018, 104, 131-142.	1.9	22
40	Earthquake risk in reinforced concrete buildings during aftershock sequences based on period elongation and operational earthquake forecasting. Structural Safety, 2020, 84, 101922.	2.8	22
41	Comparison of velocimeter and coherent lidar measurements for building frequency assessment. Bulletin of Earthquake Engineering, 2010, 8, 327-338.	2.3	21
42	Using experimental data to reduce the single-building sigma of fragility curves: case study of the BRD tower in Bucharest, Romania. Earthquake Engineering and Engineering Vibration, 2013, 12, 643-658.	1.1	20
43	RESIF RAP and RLBP Dataset of Earthquake Ground Motion in Mainland France. Seismological Research Letters, 2020, 91, 2409-2424.	0.8	20
44	Multimethod Characterization of the French-Pyrenean Valley of Bagneres-de-Bigorre for Seismic-Hazard Evaluation: Observations and Models. Bulletin of the Seismological Society of America, 2011, 101, 1912-1937.	1.1	18
45	Correlation between Ground Motion and Building Response using California Earthquake Records. Earthquake Spectra, 2015, 31, 2027-2046.	1.6	17
46	Recovery of the resonance frequency of buildings following strong seismic deformation as a proxy for structural health. Structural Health Monitoring, 2019, 18, 1966-1981.	4.3	17
47	How sensitive are site effects and building response to extreme cold temperature? The case of the Grenobleâ€™s (France) City Hall building. Bulletin of Earthquake Engineering, 2017, 15, 889-906.	2.3	16
48	Economic and Human Loss Empirical Models for Earthquakes in the Mediterranean Region, with Particular Focus on Algeria. International Journal of Disaster Risk Science, 2017, 8, 415-434.	1.3	16
49	An automatic approach towards modal parameter estimation for high-rise buildings of multicomponent signals under ambient excitations via filter-free Random Decrement Technique. Mechanical Systems and Signal Processing, 2016, 70-71, 821-831.	4.4	13
50	Lowâ€Frequency Seismic Amplification in the Quito Basin (Ecuador) Revealed by Accelerometric Recordings of the RENAC Network. Bulletin of the Seismological Society of America, 2017, 107, 2917-2926.	1.1	13
51	The Torsional Response of Civil Engineering Structures during Earthquake from an Observational Point of View. Sensors, 2021, 21, 342.	2.1	13
52	Introduction to the Special Section on Advances in Site Response Estimation. Bulletin of the Seismological Society of America, 2021, 111, 1665-1676.	1.1	13
53	NDE1.0: a new database of earthquake data recordings from buildings for engineering applications. Bulletin of Earthquake Engineering, 2020, 18, 1321-1344.	2.3	12
54	Effect of early age drying shrinkage on the seismic response of RC structures. Materials and Structures/Materiaux Et Constructions, 2020, 53, 1.	1.3	12

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55	Rainfall-Induced Variation of Seismic Waves Velocity in Soil and Implications for Soil Response: What the ARGONET (Cephalonia, Greece) Vertical Array Data Reveal. Bulletin of the Seismological Society of America, 2020, 110, 441-451.	1.1	12
56	GITEC: A Generalized Inversion Technique Benchmark. Bulletin of the Seismological Society of America, 2022, 112, 850-877.	1.1	12
57	California earthquake insurance unpopularity: the issue is the price, not the risk perception. Natural Hazards and Earth System Sciences, 2019, 19, 1909-1924.	1.5	11
58	A Natural Seismic Isolating System: The Buried Mangrove Effects. Bulletin of the Seismological Society of America, 2011, 101, 1073-1080.	1.1	10
59	Eurocode 8-compatible synthetic time-series as input to dynamic analysis. Bulletin of Earthquake Engineering, 2014, 12, 755-768.	2.3	10
60	Remote Modal Study of Reinforced Concrete Buildings Using a Multipath Lidar Vibrometer. Journal of Structural Engineering, 2015, 141, .	1.7	10
61	Prediction of non-linear site response using downhole array data and numerical modeling: The Belleplaine (Guadeloupe) case study. Physics and Chemistry of the Earth, 2017, 98, 107-118.	1.2	10
62	The fluctuationâ€“dissipation theorem used as a proxy for damping variations in real engineering structures. Engineering Structures, 2018, 167, 65-73.	2.6	10
63	Evidence of metamaterial physics at the geophysics scale: the METAFORET experiment. Geophysical Journal International, 0, , .	1.0	10
64	Nonlinear Response of Soilâ€“Structure Systems using Dynamic Centrifuge Experiments. Journal of Earthquake Engineering, 2019, 23, 1719-1741.	1.4	10
65	A comparative study of buried pipeline fragilities using the seismic damage to the Byblos wastewater network. International Journal of Disaster Risk Reduction, 2020, 51, 101775.	1.8	10
66	Earthquake Early Warning System for Structural Drift Prediction Using Machine Learning and Linear Regressors. Frontiers in Earth Science, 2021, 9, .	0.8	10
67	Comparing Direct Observation of Torsion with Array-Derived Rotation in Civil Engineering Structures. Sensors, 2021, 21, 142.	2.1	10
68	Experimental analysis of the seismic response of one base-isolation building according to different levels of shaking: example of the Martinique earthquake (2007/11/29) Mw 7.3. Bulletin of Earthquake Engineering, 2012, 10, 1285-1298.	2.3	9
69	Modeling of damage-related earthquake losses in a moderate seismic-prone country and costâ€“benefit evaluation of retrofit investments: application to France. Natural Hazards, 2018, 90, 639-662.	1.6	9
70	S2HM in Some European Countries. Springer Tracts in Civil Engineering, 2019, , 303-343.	0.3	9
71	RÃ‰SIF-SI: A Distributed Information System for French Seismological Data. Seismological Research Letters, 2021, 92, 1832-1853.	0.8	9
72	Global occurrence models for human and economic losses due to earthquakes (1967â€“2018) considering exposed GDP and population. Natural Hazards, 2022, 110, 349-372.	1.6	9

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73	Analysis of the efficiency of intensity measures from real earthquake data recorded in buildings. Soil Dynamics and Earthquake Engineering, 2021, 147, 106751.	1.9	8
74	Fundamental period elongation of a RC building during the Pollino seismic swarm sequence. Case Studies in Structural Engineering, 2016, 6, 45-52.	1.6	7
75	Consideration of the Effects of Air Temperature on Structural Health Monitoring through Traffic Light-Based Decision-Making Tools. Shock and Vibration, 2018, 2018, 1-12.	0.3	7
76	Influence of seismic strain rates on the coâ€•and postâ€seismic response of civil engineering buildings. Earthquake Engineering and Structural Dynamics, 2020, 49, 1758-1764.	2.5	7
77	Structural change detection applying long-term seismic interferometry by deconvolution method to a modern civil engineering structure (New Zealand). Bulletin of Earthquake Engineering, 2021, 19, 3551-3569.	2.3	7
78	Postseismic Survey of a Historic Masonry Tower and Monitoring of Its Dynamic Behavior in the Aftermath of Le Teil Earthquake (ArdÃ¨che, France). Bulletin of the Seismological Society of America, 2022, 112, 1101-1119.	1.1	7
79	Frequency and damping ratio assessment of high-rise buildings using an Automatic Model-Based Approach applied to real-world ambient vibration recordings. Mechanical Systems and Signal Processing, 2016, 75, 196-208.	4.4	6
80	Modification of the data-driven period/height relationship for buildings located in seismic-prone regions such as Quito (Ecuador). Bulletin of Earthquake Engineering, 2020, 18, 3545-3562.	2.3	6
81	Historical Earthquake Scenarios for the Middle Strand of the North Anatolian Fault Deduced from Archeo-Damage Inventory and Building Deformation Modeling. Seismological Research Letters, 2021, 92, 583-598.	0.8	6
82	Slow dynamics process observed in civil engineering structures to detect structural heterogeneities. Engineering Structures, 2020, 202, 109833.	2.6	5
83	Comparing Probabilistic Seismic Hazard Maps with ShakeMap Footprints for Indonesia. Seismological Research Letters, 2020, 91, 847-858.	0.8	5
84	Structural health building response induced by earthquakes: Material softening and recovery. Engineering Reports, 2020, 2, e12228.	0.9	5
85	The European-Mediterranean Distributed Accelerometric Data-Base. Geotechnical, Geological and Earthquake Engineering, 2011, , 115-128.	0.1	5
86	Parametric Study on the Interpretation of Wave Velocity Obtained by Seismic Interferometry in Beamâ€Like Buildings. Bulletin of the Seismological Society of America, 2019, 109, 1829-1842.	1.1	4
87	Title is missing!. Journal of Earthquake Engineering, 2005, 9, 657.	1.4	3
88	Condition-based decision using traffic-light concept applied to civil engineering buildings. Procedia Engineering, 2017, 199, 2096-2101.	1.2	3
89	METACityâ€Quito: A Semiâ€Dense Urban Seismic Network Deployed to Analyze the Concept of Metamaterial for the Future Design of Seismicâ€Proof Cities. Seismological Research Letters, 2019, 90, 2318-2326.	0.8	3
90	Unprecedented seismic swarm in the Maurienne valley (2017â€“2019) observed by the SISmalp Alpine seismic network: operational monitoring and management. Comptes Rendus - Geoscience, 2021, 353, 517-534.	0.4	3

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91	Distributed Archive and Single Access System for Accelerometric Event Data: A NERIESNERIES Initiative. Geotechnical, Geological and Earthquake Engineering, 2011, , 129-142.	0.1	3
92	Earthquake-induced impact scenario assessment for the historical center of Skikda, Algeria. Bulletin of Earthquake Engineering, 2022, 20, 5677-5719.	2.3	3
93	Nonlinear elasticity in buildings: a prospective way to monitor structural health. Procedia Engineering, 2017, 199, 2008-2013.	1.2	2
94	On the Value of Earthquake Scenario: The Kathmandu Recent Lesson. Frontiers in Built Environment, 2016, 1, .	1.2	1
95	Analysis of the spatioâ€temporal evolution of the Maurienne swarm (French Alps) based on earthquake clustering. Earth and Space Science, 0, , .	1.1	1
96	Isibat: A Web and Wireless Application for Collecting Urban Data about Seismic Risk. Lecture Notes in Computer Science, 2014, , 134-147.	1.0	0