Vitor Silva

List of Publications by Year in descending order

85 papers	3,213 citations	186209 28 h-index	175177 52 g-index
88 all docs	88 docs citations	88 times ranked	1851 citing authors

#	Article	IF	Citations
1	OpenQuake Engine: An Open Hazard (and Risk) Software for the Global Earthquake Model. Seismological Research Letters, 2014, 85, 692-702.	0.8	469
2	Development of the OpenQuake engine, the Global Earthquake Modelâ€™s open-source software for seismic risk assessment. Natural Hazards, 2014, 72, 1409-1427.	1.6	232
3	Seismic fragility of Italian RC precast industrial structures. Engineering Structures, 2015, 94, 122-136.	2.6	120
4	Seismic risk assessment for mainland Portugal. Bulletin of Earthquake Engineering, 2015, 13, 429-457.	2.3	116
5	Current Challenges and Future Trends in Analytical Fragility and Vulnerability Modeling. Earthquake Spectra, 2019, 35, 1927-1952.	1.6	113
6	New natural hydraulic lime mortars â€“ Physical and microstructural properties in different curing conditions. Construction and Building Materials, 2014, 54, 378-384.	3.2	110
7	Development of a fragility and vulnerability model for global seismic risk analyses. Bulletin of Earthquake Engineering, 2021, 19, 6719-6745.	2.3	109
8	Exploring the impact of spatial correlations and uncertainties for portfolio analysis in probabilistic seismic loss estimation. Bulletin of Earthquake Engineering, 2015, 13, 957-981.	2.3	100
9	Development of a global seismic risk model. Earthquake Spectra, 2020, 36, 372-394.	1.6	91
10	Development of a Fragility Model for the Residential Building Stock in South America. Earthquake Spectra, 2017, 33, 581-604.	1.6	89
11	Seismic risk assessment and hazard mapping in Nepal. Natural Hazards, 2015, 78, 583-602.	1.6	74
12	Evaluation of analytical methodologies used to derive vulnerability functions. Earthquake Engineering and Structural Dynamics, 2014, 43, 181-204.	2.5	73
13	Investigation of the characteristics of Portuguese regular moment-frame RC buildings and development of a vulnerability model. Bulletin of Earthquake Engineering, 2015, 13, 1455-1490.	2.3	70
14	Exposure model for European seismic risk assessment. Earthquake Spectra, 2020, 36, 252-273.	1.6	67
15	Exploring Risk-Targeted Hazard Maps for Europe. Earthquake Spectra, 2016, 32, 1165-1186.	1.6	66
16	Modeling the Residential Building Inventory in South America for Seismic Risk Assessment. Earthquake Spectra, 2017, 33, 299-322.	1.6	65
17	The 2018 version of the Global Earthquake Model: Hazard component. Earthquake Spectra, 2020, 36, 226-251.	1.6	50
18	Critical Issues on Probabilistic Earthquake Loss Assessment. Journal of Earthquake Engineering, 2018, 22, 1683-1709.	1.4	42

#	Article	IF	Citations
19	A Building Classification System for Multi-hazard Risk Assessment. International Journal of Disaster Risk Science, 2022, 13, 161-177.	1.3	40
20	Earthquake loss estimation for the Kathmandu Valley. Bulletin of Earthquake Engineering, 2016, 14, 59-88.	2.3	39
21	Modeling the residential building stock in the Middle East for multi-hazard risk assessment. Natural Hazards, 2020, 100, 781-810.	1.6	39
22	Critical Issues in Earthquake Scenario Loss Modeling. Journal of Earthquake Engineering, 2016, 20, 1322-1341.	1.4	38
23	Extending displacement-based earthquake loss assessment (DBELA) for the computation of fragility curves. Engineering Structures, 2013, 56, 343-356.	2.6	36
24	Development and assessment of damageâ€toâ€loss models for momentâ€frame reinforced concrete buildings. Earthquake Engineering and Structural Dynamics, 2016, 45, 797-817.	2.5	36
25	Uncertainty and Correlation in Seismic Vulnerability Functions of Building Classes. Earthquake Spectra, 2019, 35, 1515-1539.	1.6	34
26	On the treatment of uncertainties in the development of fragility functions for earthquake loss estimation of building portfolios. Earthquake Engineering and Structural Dynamics, 2016, 45, 1955-1976.	2.5	33
27	Assessment of earthquake damage considering the characteristics of past events in South America. Soil Dynamics and Earthquake Engineering, 2017, 99, 86-96.	1.9	32
28	Can an earth plaster be efficient when applied on different masonries?. Journal of Building Engineering, 2019, 23, 314-323.	1.6	31
29	Development of a probabilistic earthquake loss model for Iran. Bulletin of Earthquake Engineering, 2019, 17, 1795-1823.	2.3	28
30	Application of open tools and datasets to probabilistic modeling of road traffic disruptions due to earthquake damage. Earthquake Engineering and Structural Dynamics, 2020, 49, 1236-1255.	2.5	27
31	Combining USGS ShakeMaps and the OpenQuakeâ€engine for damage and loss assessment. Earthquake Engineering and Structural Dynamics, 2019, 48, 634-652.	2.5	25
32	Seismic vulnerability modelling of building portfolios using artificial neural networks. Earthquake Engineering and Structural Dynamics, 2022, 51, 310-327.	2.5	25
33	On the treatment of uncertainty in seismic vulnerability and portfolio risk assessment. Earthquake Engineering and Structural Dynamics, 2018, 47, 87-104.	2.5	24
34	Evaluation of Seismic Risk on UNESCO Cultural Heritage sites in Europe. International Journal of Architectural Heritage, 2018, 12, 1231-1244.	1.7	24
35	Probabilistic earthquake and flood loss assessment in the Middle East. International Journal of Disaster Risk Reduction, 2020, 49, 101662.	1.8	23
36	Model of seismic design lateral force levels for the existing reinforced concrete European building stock. Bulletin of Earthquake Engineering, 2021, 19, 2839-2865.	2.3	23

#	Article	IF	Citations
37	Evaluation of the seismic risk of the unreinforced masonry building stock in Antioquia, Colombia. Natural Hazards, 2017, 86, 31-54.	1.6	22
38	Impact of exposure spatial resolution on seismic loss estimates in regional portfolios. Bulletin of Earthquake Engineering, 2021, 19, 5819-5841.	2.3	21
39	Earthquake loss assessment of precast RC industrial structures in Tuscany (Italy). Bulletin of Earthquake Engineering, 2018, 16, 203-228.	2.3	20
40	Exploring the impact of epistemic uncertainty on a regional probabilistic seismic risk assessment model. Natural Hazards, 2020, 104, 997-1020.	1.6	20
41	Probabilistic seismic risk assessment of India. Earthquake Spectra, 2020, 36, 345-371.	1.6	20
42	Development of Fragility Curves for Confined Masonry Buildings in Lima, Peru. Earthquake Spectra, 2018, 34, 1339-1361.	1.6	19
43	Variable resolution probabilistic modeling of residential exposure and vulnerability for risk applications. Earthquake Spectra, 2020, 36, 321-344.	1.6	19
44	Vulnerability modellers toolkit, an open-source platform for vulnerability analysis. Bulletin of Earthquake Engineering, 2021, 19, 5691-5709.	2.3	19
45	Assessing Integrated Earthquake Risk in OpenQuake with an Application to Mainland Portugal. Earthquake Spectra, 2016, 32, 1383-1403.	1.6	17
46	Advances in the derivation of fragility functions for the development of risk-targeted hazard maps. Engineering Structures, 2018, 173, 669-680.	2.6	17
47	Exposure forecasting for seismic risk estimation: Application to Costa Rica. Earthquake Spectra, 2021, 37, 1806-1826.	1.6	17
48	Probabilistic framework for regional loss assessment due to earthquake-induced liquefaction including epistemic uncertainty. Soil Dynamics and Earthquake Engineering, 2021, 141, 106493.	1.9	16
49	Potential impact of earthquakes during the 2020 COVID-19 pandemic. Earthquake Spectra, 2021, 37, 73-94.	1.6	16
50	Development and application of a real-time loss estimation framework for Portugal. Bulletin of Earthquake Engineering, 2015, 13, 2493-2516.	2.3	15
51	Using Open-Access Data in the Development of Exposure Data Sets of Industrial Buildings for Earthquake Risk Modeling. Earthquake Spectra, 2017, 33, 63-84.	1.6	15
52	Probabilistic seismic vulnerability and loss assessment of the residential building stock in Costa Rica. Bulletin of Earthquake Engineering, 2019, 17, 1257-1284.	2.3	15
53	Introducing new design spectra derived from Italian recorded ground motions 1972 to 2017. Earthquake Engineering and Structural Dynamics, 2018, 47, 2644-2660.	2.5	13
54	European Seismic Risk Model 2020: Focus on Croatia. , 2019, , .		12

#	Article	IF	Citations
55	Including Multiple IMTs in the Development of Fragility Functions for Earthquake Loss Estimation. , 2014, , .		11
56	Seismic risk assessment for the residential buildings of the major three cities in Colombia: BogotÃ¡, MedellÃn, and Cali. Earthquake Spectra, 2020, 36, 298-320.	1.6	11
57	Contrasting seismic risk for Santiago, Chile, from near-field and distant earthquake sources. Natural Hazards and Earth System Sciences, 2020, 20, 1533-1555.	1.5	11
58	Characterisation of the masonry building stock in Portugal for earthquake risk assessment. Engineering Structures, 2021, 233, 111857.	2.6	11
59	Effect of surface biotreatments on construction materials. Construction and Building Materials, 2020, 241, 118019.	3.2	11
60	Data schemas for multiple hazards, exposure and vulnerability. Disaster Prevention and Management, 2019, 28, 752-763.	0.6	10
61	Effect of innovative bioproducts on air lime mortars. Journal of Building Engineering, 2021, 35, 101985.	1.6	10
62	Cement-Bonded Particleboards with Banana Pseudostem Waste: Physical Performance and Bio-Susceptibility. Infrastructures, 2021, 6, 86.	1.4	10
63	Vernacular CaramelÂ´s Adobe Masonry Dwellings â€“ Material Characterization. International Journal of Architectural Heritage, 2022, 16, 67-84.	1.7	10
64	Generation of spectrum-compatible acceleration time history for Nepal. Comptes Rendus - Geoscience, 2017, 349, 198-201.	0.4	9
65	Fragility Function Manager Tool. Geotechnical, Geological and Earthquake Engineering, 2014, , 385-402.	0.1	9
66	Epistemic Uncertainty in Fragility Functions for European RC Buildings. Geotechnical, Geological and Earthquake Engineering, 2014, , 95-109.	0.1	9
67	Toward a uniform earthquake loss model across Central America. Earthquake Spectra, 2022, 38, 178-199.	1.6	9
68	Assessing the impact of earthquake scenarios in transportation networks: the Portuguese mining factory case study. Bulletin of Earthquake Engineering, 2018, 16, 1137-1163.	2.3	8
69	Seismic fragility functions for Portuguese RC precast buildings. Bulletin of Earthquake Engineering, 2021, 19, 6573-6590.	2.3	8
70	Development of a uniform exposure model for the African continent for use in disaster risk assessment. International Journal of Disaster Risk Reduction, 2022, 71, 102823.	1.8	8
71	Development of a Fragility Model for Moment-Frame RC Buildings in Portugal. , 2014, , .		7
72	Hazard Disaggregation and Record Selection for Fragility Analysis and Earthquake Loss Estimation. Earthquake Spectra, 2017, 33, 529-549.	1.6	7

#	Article	IF	Citations
73	Significant Seismic Risk Potential From Buried Faults Beneath Almaty City, Kazakhstan, Revealed From Highâ€Resolution Satellite DEMs. Earth and Space Science, 2021, 8, e2021EA001664.	1.1	7
74	A liquefaction occurrence model for regional analysis. Soil Dynamics and Earthquake Engineering, 2022, 161, 107430.	1.9	7
75	A township-level exposure model of residential buildings for mainland China. Natural Hazards, 2021, 108, 389-423.	1.6	6
76	The importance of indirect losses in the seismic risk assessment of industrial buildings â€“ An application to precast RC buildings in Portugal. International Journal of Disaster Risk Reduction, 2022, 74, 102949.	1.8	6
77	Effect of Type of Curing and Metakaolin Replacement on Air Lime Mortars for the Durability of Masonries. Infrastructures, 2021, 6, 143.	1.4	5
78	A simplified approach for including the incidence angle effect in seismic risk assessment. Earthquake Engineering and Structural Dynamics, 2022, 51, 191-212.	2.5	5
79	Investigation of the Characteristics of the Portuguese Moment-Frame RC Building Stock. , 2014, , .		4
80	Seismic Vulnerability Assessment of Portuguese Adobe Buildings. Buildings, 2021, 11, 200.	1.4	4
81	OPEN MODELS AND SOFTWARE FOR ASSESSING THE VULNERABILITY OF THE EUROPEAN BUILDING STOCK. , 2021, , .		4
82	Influence of Record Selection Procedures on Seismic Loss Estimations. , 2014, , .		2
83	Earthquake early warning for Portugal: part 1 - Where does it matter?. Bulletin of Earthquake Engineering, 2022, 20, 5545-5565.	2.3	2
84	Improving the Nepalese Building Code Based on Lessons Learned From the 2015 M7.8 Gorkha Earthquake. , 2018, , 135-172.		1
85	Effect of innovative bioproducts on the performance of bioformulated earthen plasters. Construction and Building Materials, 2021, 277, 122261.	3.2	1