Cimellaro Gian Paolo

List of Publications by Year
in descending order

146 papers	**4,382** citations	136950 **32** h-index	118850 **62** g-index
160 all docs	**160** docs citations	**160** times ranked	**2610** citing authors

#	Article	IF	Citations
1	Neodeterministic method to assess the seismic performance of water distribution networks. , 2022, , 255-266.		0
2	Bridge and transport network resilience – a perspective. Proceedings of the Institution of Civil Engineers: Bridge Engineering, 2022, 175, 138-149.	0.6	13
3	Disaster resilience quantification of communities: A risk-based approach. International Journal of Disaster Risk Reduction, 2022, 70, 102778.	3.9	18
4	A New Finite Element–Based Methodology for Earthquake Simulation of Large-Scale Urban Areas. Journal of Structural Engineering, 2022, 148, .	3.4	1
5	Fire Emergency Evacuation from a School Building Using an Evolutionary Virtual Reality Platform. Buildings, 2022, 12, 223.	3.1	18
6	Evolutionary polynomial regression algorithm combined with robust bayesian regression. Advances in Engineering Software, 2022, 167, 103101.	3.8	2
7	Machine Learning: The Role of Machines for Resilient Communities. , 2022, , 231-251.		0
8	Measuring and improving community resilience: A fuzzy logic approach. International Journal of Disaster Risk Reduction, 2022, 78, 103118.	3.9	10
9	Disaster Resilience Assessment of Building and Transportation System. Journal of Earthquake Engineering, 2021, 25, 703-729.	2.5	27
10	Integrated platform to assess seismic resilience at the community level. Sustainable Cities and Society, 2021, 64, 102506.	10.4	46
11	Quantifying restoration time of power and telecommunication lifelines after earthquakes using Bayesian belief network model. Reliability Engineering and System Safety, 2021, 208, 107320.	8.9	25
12	Improving Distributed Fiber Optic Sensor Measures by Digital Image Correlation: Two-Stage Structural Health Monitoring. ACI Structural Journal, 2021, 118, .	0.2	3
13	Resilience assessment at the regional level using census data. International Journal of Disaster Risk Reduction, 2021, 55, 102059.	3.9	12
14	IdealCity: A hybrid approach to seismic evacuation modeling. Advances in Engineering Software, 2021, 153, 102956.	3.8	19
15	A new evolutionary polynomial regression technique to assess the fundamental periods of irregular buildings. Earthquake Engineering and Structural Dynamics, 2021, 50, 2195-2211.	4.4	7
16	Seismic vulnerability assessment indices for buildings: Proposals, comparisons and methodologies at collapse limit states. International Journal of Disaster Risk Reduction, 2021, 63, 102466.	3.9	12
17	Quantifying restoration time of pipelines after earthquakes: Comparison of Bayesian belief networks and fuzzy models. International Journal of Disaster Risk Reduction, 2021, 64, 102491.	3.9	15
18	A computational framework for large-scale seismic simulations of residential building stock. Engineering Structures, 2021, 244, 112690.	5.3	17

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19	Evolutionary Polynomial Regression Algorithm Enhanced with a Robust Formulation: Application to Shear Strength Prediction of RC Beams without Stirrups. Journal of Computing in Civil Engineering, 2021, 35, .	4.7	8
20	Three-Dimensional Base Isolation Using Vertical Negative Stiffness Devices. Journal of Earthquake Engineering, 2020, 24, 2004-2032.	2.5	47
21	Modeling the interdependency between buildings and the electrical distribution system for seismic resilience assessment. International Journal of Disaster Risk Reduction, 2020, 42, 101315.	3.9	23
22	The role of reinforced concrete roofs in the seismic performance of masonry buildings. Journal of Building Engineering, 2020, 28, 101056.	3.4	3
23	Post-collapse analysis of Morandi's Polcevera viaduct in Genoa Italy. Journal of Civil Structural Health Monitoring, 2020, 10, 69-85.	3.9	77
24	Resourcefulness quantification approach for resilient communities and countries. International Journal of Disaster Risk Reduction, 2020, 46, 101509.	3.9	12
25	System Dynamics Modeling-Based Approach for Assessing Seismic Resilience of Hospitals: Methodology and a Case in China. Journal of Management in Engineering - ASCE, 2020, 36, .	4.8	31
26	Nondestructive Monitoring Techniques for Crack Detection and Localization in RC Elements. Applied Sciences (Switzerland), 2020, 10, 3248.	2.5	21
27	Deteriorated seismic capacity assessment of <scp>reinforced concrete</scp> bridge piers in corrosive environment. Structural Concrete, 2020, 21, 1823-1838.	3.1	20
28	Probabilistic framework to evaluate the resilience of engineering systems using Bayesian and dynamic Bayesian networks. Reliability Engineering and System Safety, 2020, 198, 106813.	8.9	135
29	Damage risk assessment of historical asset using laser scan and finite element approach. Procedia Structural Integrity, 2020, 29, 183-191.	0.8	1
30	A first order evaluation of the capacity of a healthcare network under emergency. Earthquake Engineering and Engineering Vibration, 2019, 18, 663-677.	2.3	19
31	Resilience assessment of dynamic engineering systems. MATEC Web of Conferences, 2019, 281, 01008.	0.2	5
32	Time-Dependent Probability of Exceeding a Target Level of Recovery. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2019, 5, .	1.7	8
33	Resilience Assessment of Urban Communities. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2019, 5, .	1.7	43
34	Modeling interdependencies of critical infrastructures after hurricane Sandy. International Journal of Disaster Risk Reduction, 2019, 38, 101191.	3.9	13
35	Quantifying Hospital Resilience to Earthquakes Based on System Dynamics Modeling. , 2019, , .		3
36	Multi-Hazard Resilience Assessment of a Coastal Community Due to Offshore Earthquakes. Journal of Earthquake and Tsunami, 2019, 13, .	1.3	15

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37	A simplified method to assess generation of seismic debris for masonry structures. Engineering Structures, 2019, 186, 306-320.	5.3	25
38	Pedestrian evacuation simulation under the scenario with earthquake-induced falling debris. Safety Science, 2019, 114, 61-71.	4.9	44
39	Downtime estimation of building structures using fuzzy logic. International Journal of Disaster Risk Reduction, 2019, 34, 196-208.	3.9	48
40	Disproportionate collapse of a cable-stayed bridge. Proceedings of the Institution of Civil Engineers: Bridge Engineering, 2019, 172, 13-26.	0.6	7
41	Integrating a Human Behavior Model within an Agentâ€Based Approach for Blasting Evacuation. Computer-Aided Civil and Infrastructure Engineering, 2019, 34, 3-20.	9.8	33
42	Seismic Modeling of Infill Walls. Geotechnical, Geological and Earthquake Engineering, 2018, , 369-390.	0.2	0
43	Earthquake Prediction. Geotechnical, Geological and Earthquake Engineering, 2018, , 263-280.	0.2	1
44	Capacity Design. Geotechnical, Geological and Earthquake Engineering, 2018, , 355-367.	0.2	0
45	Tuned-Mass Dampers. Geotechnical, Geological and Earthquake Engineering, 2018, , 421-438.	0.2	3
46	Quantitative Framework to Assess Resilience and Risk at the Country Level. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2018, 4, .	1.7	22
47	Factor Analysis to Evaluate Hospital Resilience. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2018, 4, .	1.7	25
48	Deterministic and fuzzy-based methods to evaluate community resilience. Earthquake Engineering and Engineering Vibration, 2018, 17, 261-275.	2.3	33
49	Masonry Structures. Geotechnical, Geological and Earthquake Engineering, 2018, , 475-532.	0.2	3
50	Base Isolation. Geotechnical, Geological and Earthquake Engineering, 2018, , 439-473.	0.2	1
51	Modeling of Structures in Seismic Zone. Geotechnical, Geological and Earthquake Engineering, 2018, , 533-583.	0.2	0
52	Passive Energy Dissipating Systems. Geotechnical, Geological and Earthquake Engineering, 2018, , 391-419.	0.2	0
53	Energy Dissipation. Geotechnical, Geological and Earthquake Engineering, 2018, , 161-172.	0.2	0
54	Generalized SDOF Systems. Geotechnical, Geological and Earthquake Engineering, 2018, , 179-190.	0.2	0

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55	A new energy-based ground motion selection and modification method limiting the dynamic response dispersion and preserving the median demand. Bulletin of Earthquake Engineering, 2018, 16, 561-581.	4.1	14
56	Performance-based seismic design of multistory frame structures equipped with crescent-shaped brace. Structural Control and Health Monitoring, 2018, 25, e2079.	4.0	17
57	Introduction to Dynamics of Structures and Earthquake Engineering. Geotechnical, Geological and Earthquake Engineering, 2018, , .	0.2	5
58	Downtime estimation and analysis of lifelines after an earthquake. Engineering Structures, 2018, 173, 393-403.	5.3	58
59	Development of Dynamic Laboratory Platform for Earthquake Engineering Courses. Journal of Professional Issues in Engineering Education and Practice, 2018, 144, .	0.9	4
60	Seismic Input. Geotechnical, Geological and Earthquake Engineering, 2018, , 281-307.	0.2	0
61	Opensignal. Geotechnical, Geological and Earthquake Engineering, 2018, , 309-329.	0.2	1
62	Methods of Analysis. Geotechnical, Geological and Earthquake Engineering, 2018, , 331-351.	0.2	0
63	SDOF Systems. Geotechnical, Geological and Earthquake Engineering, 2018, , 17-55.	0.2	0
64	Distributed Mass and Elasticity Systems. Geotechnical, Geological and Earthquake Engineering, 2018, , 173-178.	0.2	0
65	Using Discrete Event Simulation Models to Evaluate Resilience of an Emergency Department. Journal of Earthquake Engineering, 2017, 21, 203-226.	2.5	51
66	Simulating earthquake evacuation using human behavior models. Earthquake Engineering and Structural Dynamics, 2017, 46, 985-1002.	4.4	48
67	Soil-Structure Interaction for Integrated Design of Weakened and Damped Structures. Journal of Earthquake and Tsunami, 2017, 11, 1750013.	1.3	1
68	Closure to â€œNew Resilience Index for Urban Water Distribution Networksâ€•by G. P. Cimellaro, A. Tinebra, C. Renschler, and M. Fragiadakis. Journal of Structural Engineering, 2017, 143, .	3.4	11
69	Cascading Hazard Analysis of a Hospital Building. Journal of Structural Engineering, 2017, 143, .	3.4	14
70	Stability analysis of different types of steel scaffolds. Engineering Structures, 2017, 152, 535-548.	5.3	28
71	A New Resilience Rating System for Countries and States. Procedia Engineering, 2017, 198, 985-998.	1.2	29
72	MODELING AIRPORT EVACUATION UNDER EMERGENCY USING AGENT-BASED MODELS. , 2017, , .		1

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73	RESILIENCE ASSESSMENT FOR THE BUILT ENVIRONMENT OF A VIRTUAL CITY. , 2017, , .		5
74	EXPLORING SIMULATION TOOLS FOR URBAN SEISMIC ANALYSIS AND RESILIENCE ASSESSMENT. , 2017, , .		0
75	VIRTUAL CITY FOR WATER DISTRIBUTION RESEARCH IN CRISIS MANAGEMENT. , 2017, , .		2
76	A NEW DECISION MAKING METHOD TO SELECT PRIORITY INTERVENTIONS AFTER EXTREME EVENTS. , 2017, , .		1
77	A SIMPLIFIED APPROACH FOR THE SEISMIC ASSESSMENT OF HOSPITAL COMPLEX NETWORKS. , 2017, , .		0
78	Fragility Curves of Restoration Processes for Resilience Analysis. Springer Series in Reliability Engineering, 2017, , 495-507.	0.5	0
79	GENERATING ARTIFICIAL TIME HISTORIES USING A NEW COMPUTER-BASED ENVIRONMENTAL PLATFORM: OPENSIGNAL. , 2017, , .		0
80	ANALYSIS OF A NUCLEAR POWER PLANT FAILURE USING TEMPORAL NETWORKS. , 2017, , .		0
81	DOWNTIME ESTIMATION FOR RESILIENCE ASSESSMENT ACCOUNTING EXTERNAL FACTORS. , 2017, , .		0
82	PEOPLES: A Framework for Evaluating Resilience. Journal of Structural Engineering, 2016, 142, .	3.4	221
83	The Dynamic Behavior of the Basilica of San Francesco in Assisi Using Simplified Analytical Models. International Journal of Architectural Heritage, 2016, 10, 938-953.	3.1	8
84	Resilience of a hospital Emergency Department under seismic event. Advances in Structural Engineering, 2016, 19, 825-836.	2.4	42
85	A Comprehensive Methodology for the Evaluation of Infrastructure Interdependencies. Geotechnical, Geological and Earthquake Engineering, 2016, , 139-223.	0.2	3
86	Special Issue on Resilience-Based Analysis and Design of Structures and Infrastructure Systems. Journal of Structural Engineering, 2016, 142, .	3.4	6
87	PEOPLES Resilience Framework. Geotechnical, Geological and Earthquake Engineering, 2016, , 109-137.	0.2	3
88	Urban Resilience for Emergency Response and Recovery. Geotechnical, Geological and Earthquake Engineering, 2016, , .	0.2	62
89	Resilience-Based Design (RBD). Geotechnical, Geological and Earthquake Engineering, 2016, , 31-48.	0.2	0
90	New Resilience Index for Urban Water Distribution Networks. Journal of Structural Engineering, 2016, 142, .	3.4	93

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91	Downtime and Recovery Models. Geotechnical, Geological and Earthquake Engineering, 2016, , 93-108.	0.2	4
92	A Model to Evaluate Disaster Resilience of an Emergency Department. Geotechnical, Geological and Earthquake Engineering, 2016, , 361-387.	0.2	0
93	Damage Losses Assessment Models. Geotechnical, Geological and Earthquake Engineering, 2016, , 71-92.	0.2	0
94	The Physical Infrastructure Dimension Taking into Account Interdependencies. Geotechnical, Geological and Earthquake Engineering, 2016, , 317-344.	0.2	1
95	Computational Tools and Software for Resilience Assessment. Geotechnical, Geological and Earthquake Engineering, 2016, , 463-507.	0.2	0
96	The Physical Infrastructure Dimension of Community Resilience Framework. Geotechnical, Geological and Earthquake Engineering, 2016, , 227-315.	0.2	0
97	Applications of Seismic Resilience for Health Care Facilities and School Buildings. Geotechnical, Geological and Earthquake Engineering, 2016, , 345-359.	0.2	0
98	The dynamic behaviour of the roof interventions in the Basilica San Francesco in Assisi. , 2015, , .		0
99	A Computer-Based Environment for Processing and Selection of Seismic Ground Motion Records: OPENSIGNAL. Frontiers in Built Environment, 2015, 1, .	2.3	17
100	Seismic Performance of Segmental Rocking Columns Connected with NiTi Martensitic SMA Bars. Advances in Structural Engineering, 2015, 18, 571-584.	2.4	26
101	Analysis of the failure mechanisms of the basilica of Santa Maria di Collemaggio during 2009 Lâ€™Aquila earthquake. Engineering Structures, 2015, 99, 502-516.	5.3	14
102	Introduction to Resilience-Based Design (RBD). Geotechnical, Geological and Earthquake Engineering, 2015, , 151-183.	0.2	6
103	Analysis of Economic Resiliency of Communities Affected by Natural Disasters: The Bay Area Case Study. Procedia Economics and Finance, 2014, 18, 959-968.	0.6	9
104	Rapid building damage assessment system using mobile phone technology. Earthquake Engineering and Engineering Vibration, 2014, 13, 519-533.	2.3	37
105	Utilizing Base-isolation Systems to Increase Earthquake Resiliency of Healthcare and School Buildings. Procedia Economics and Finance, 2014, 18, 969-976.	0.6	22
106	Seismic Performance of Industrial Sheds and Liquefaction Effects During May 2012 Emilia Earthquakes Sequence in Northern Italy. Journal of Earthquake and Tsunami, 2014, 08, 1450009.	1.3	5
107	Physical infrastructure interdependency and regional resilience index after the 2011 Tohoku Earthquake in Japan. Earthquake Engineering and Structural Dynamics, 2014, 43, 1763-1784.	4.4	107
108	Considerations about the optimal period range to evaluate the weight coefficient of coupled resilience index. Engineering Structures, 2014, 69, 12-24.	5.3	20

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109	Physical infrastructure interdependency and regional resilience index after the 2011 Tohoku Earthquake in Japan. , 2014, 43, 1763.		1
110	Consideration of Resilience of Communities in Structural Design. Geotechnical, Geological and Earthquake Engineering, 2014, , 401-421.	0.2	4
111	Ambient vibration tests of XV century Renaissance Palace after 2012 Emilia earthquake in Northern Italy. Structural Monitoring and Maintenance, 2014, 1, 231-247.	1.7	7
112	Correlation in spectral accelerations for earthquakes in Europe. Earthquake Engineering and Structural Dynamics, 2013, 42, 623-633.	4.4	44
113	SERVICEABILITY OF NATURAL GAS DISTRIBUTION NETWORKS AFTER EARTHQUAKES. Journal of Earthquake and Tsunami, 2013, 07, 1350005.	1.3	19
114	Resilience-based design (RBD) modelling of civil infrastructure to assess seismic hazards. , 2013, , 268-303.		12
115	Output-Only Modal Identification of Ancient Lâ€™Aquila City Hall and Civic Tower. Journal of Structural Engineering, 2012, 138, 481-491.	3.4	42
116	Reply to â€œDiscussion 1 on â€˜Introspection on improper seismic retrofit of Basilica Santa Maria di Collemaggio after 2009 Italian earthquakeâ€™ by G.P. Cimellaro, A.M. Reinhorn and A.De Stefanoâ€•by Vincenzo Ciampi. Earthquake Engineering and Engineering Vibration, 2012, 11, 283-288.	2.3	6
117	Reply to â€œDiscussion 2 on â€˜Introspection on improper seismic retrofit of Basilica Santa Maria di Collemaggio after 2009 Italian earthquakeâ€™ by G.P. Cimellaro, A.M. Reinhorn and A.De Stefanoâ€•by Enzo Cartapati. Earthquake Engineering and Engineering Vibration, 2012, 11, 291-292.	2.3	5
118	Fragility Analysis and Seismic Record Selection. Journal of Structural Engineering, 2011, 137, 379-390.	3.4	56
119	Multidimensional Performance Limit State for Hazard Fragility Functions. Journal of Engineering Mechanics - ASCE, 2011, 137, 47-60.	2.9	53
120	Introspection on improper seismic retrofit of Basilica Santa Maria di Collemaggio after 2009 Italian earthquake. Earthquake Engineering and Engineering Vibration, 2011, 10, 153-161.	2.3	15
121	Algorithm for design of controlled motion of adjacent structures. Structural Control and Health Monitoring, 2011, 18, 140-148.	4.0	24
122	Performance-based metamodel for healthcare facilities. Earthquake Engineering and Structural Dynamics, 2011, 40, 1197-1217.	4.4	74
123	Seismic Fragility Evaluation of RC Frame Structures Retrofitted with Controlled Concrete Rocking Column and Damping Technique. Journal of Earthquake Engineering, 2011, 15, 1069-1082.	2.5	12
124	Seismic Response of Adjacent Steel Structures Connected by Passive Device. Advances in Structural Engineering, 2011, 14, 499-517.	2.4	25
125	Framework for analytical quantification of disaster resilience. Engineering Structures, 2010, 32, 3639-3649.	5.3	976
126	Modeling Combined Friction-Viscous Damping in Response of Hollow Core Composite Insulators. , 2010, , .		2

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127	Considerations Regarding the Retrofit Intervention of Santa Maria Di Collemaggio Basilica in L'Aquila Following 2009 Italian Earthquake. , 2010, , .		0
128	Seismic resilience of a hospital system. Structure and Infrastructure Engineering, 2010, 6, 127-144.	3.7	438
129	Evaluation of Hollow Core Composite Insulators. , 2009, , .		2
130	Design of passive systems for control of inelastic structures. Earthquake Engineering and Structural Dynamics, 2009, 38, 783-804.	4.4	49
131	Spectral and fragility evaluations of retrofitted structures through strength reduction and enhanced damping. Earthquake Engineering and Engineering Vibration, 2009, 8, 115-125.	2.3	12
132	Optimal weakening and damping using polynomial control for seismically excited nonlinear structures. Earthquake Engineering and Engineering Vibration, 2009, 8, 607-616.	2.3	5
133	Design of controlled elastic and inelastic structures. Earthquake Engineering and Engineering Vibration, 2009, 8, 469-479.	2.3	28
134	Future directions in structural control. Structural Control and Health Monitoring, 2009, 16, 7-16.	4.0	64
135	Integrated design of inelastic controlled structural systems. Structural Control and Health Monitoring, 2009, 16, 689-702.	4.0	31
136	Integrated Design of Controlled Linear Structural Systems. Journal of Structural Engineering, 2009, 135, 853-862.	3.4	44
137	Seismic reliability of a cable-stayed bridge retrofitted with hysteretic devices. Computers and Structures, 2008, 86, 1769-1781.	4.4	72
138	Algorithm for Optimal Design of Adjacent Buildings Connected by Fluid Viscous Devices. , 2008, , .		5
139	Noniterative Optimization Procedure for Seismic Weakening and Damping of Inelastic Structures. Journal of Structural Engineering, 2008, 134, 1638-1648.	3.4	47
140	Seismic Response of Adjacent Buildings Connected by Nonlinear Viscous Dampers. , 2007, , 1.		6
141	Simultaneous stiffnessâ€“damping optimization of structures with respect to acceleration, displacement and base shear. Engineering Structures, 2007, 29, 2853-2870.	5.3	78
142	Optimal softening and damping design for buildings. Structural Control and Health Monitoring, 2007, 14, 831-857.	4.0	46
143	Retrofit of a hospital through strength reduction and enhanced damping. Smart Structures and Systems, 2006, 2, 339-355.	1.9	85
144	Integrated Design of Smart Structures. Advances in Science and Technology, 0, , .	0.2	9

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145	Optimal Placement of Controller for Seismic Structures. , 0, , 1-33.		3
146	Integrated Design of Smart Structures. Advances in Science and Technology, 0, , 127-136.	0.2	2