Paolo Bocchini

List of Publications by Year
in descending order

52 papers	2,453 citations	279798 23 h-index	254184 43 g-index
54 all docs	54 docs citations	54 times ranked	1577 citing authors

#	Article	IF	Citations
1	Resilience and Sustainability of Civil Infrastructure: Toward a Unified Approach. Journal of Infrastructure Systems, 2014, 20, .	1.8	340
2	A probabilistic approach for the prediction of seismic resilience of bridges. Earthquake Engineering and Structural Dynamics, 2013, 42, 1469-1487.	4.4	185
3	Restoration of Bridge Networks after an Earthquake: Multicriteria Intervention Optimization. Earthquake Spectra, 2012, 28, 427-455.	3.1	157
4	Optimal Resilience- and Cost-Based Postdisaster Intervention Prioritization for Bridges along a Highway Segment. Journal of Bridge Engineering, 2012, 17, 117-129.	2.9	152
5	Resilience metrics and measurement methods for transportation infrastructure: the state of the art. Sustainable and Resilient Infrastructure, 2020, 5, 168-199.	2.8	148
6	Applications of artificial intelligence for disaster management. Natural Hazards, 2020, 103, 2631-2689.	3.4	138
7	A simple and efficient methodology to approximate a general non-Gaussian stationary stochastic process by a translation process. Probabilistic Engineering Mechanics, 2011, 26, 511-519.	2.7	132
8	Graphical User Interface for Guided Acoustic Waves. Journal of Computing in Civil Engineering, 2011, 25, 202-210.	4.7	107
9	A stochastic computational framework for the joint transportation network fragility analysis and traffic flow distribution under extreme events. Probabilistic Engineering Mechanics, 2011, 26, 182-193.	2.7	95
10	Critical review and latest developments of a class of simulation algorithms for strongly non-Gaussian random fields. Probabilistic Engineering Mechanics, 2008, 23, 393-407.	2.7	94
11	A probabilistic computational framework for bridge network optimal maintenance scheduling. Reliability Engineering and System Safety, 2011, 96, 332-349.	8.9	92
12	Bridge network performance, maintenance and optimisation under uncertainty: accomplishments and challenges. Structure and Infrastructure Engineering, 2012, 8, 341-356.	3.7	78
13	Computation of bridge seismic fragility by largeâ€scale simulation for probabilistic resilience analysis. Earthquake Engineering and Structural Dynamics, 2015, 44, 1959-1978.	4.4	63
14	Efficient, accurate, and simple Markov chain model for the life-cycle analysis of bridge groups. Structural Safety, 2013, 40, 51-64.	5.3	55
15	Material characteristics of binder jet 3D printed hydrated CSA cement with the addition of fine aggregates. Construction and Building Materials, 2019, 206, 494-503.	7.2	50
16	Resilience As Optimization Criterion for the Rehabilitation of Bridges Belonging to a Transportation Network Subject to Earthquake. , 2011, , .		46
17	Generalized bridge network performance analysis with correlation and time-variant reliability. Structural Safety, 2011, 33, 155-164.	5.3	45
18	Connectivity-Based Optimal Scheduling for Maintenance of Bridge Networks. Journal of Engineering Mechanics - ASCE, 2013, 139, 760-769.	2.9	41

#	Article	IF	Citations
19	Time-dependent risk associated with deterioration of highway bridge networks. Engineering Structures, 2013, 54, 221-233.	5.3	37
20	Functionalityâ€fragility surfaces. Earthquake Engineering and Structural Dynamics, 2017, 46, 1687-1709.	4.4	34
21	Sequencing algorithm with multiple-input genetic operators: Application to disaster resilience. Engineering Structures, 2016, 117, 591-602.	5.3	32
22	From Component Damage to System-Level Probabilistic Restoration Functions for a Damaged Bridge. Journal of Infrastructure Systems, 2017, 23, .	1.8	32
23	Probabilistic functionality recovery model for resilience analysis. Bridge Maintenance, Safety and Management, 2012, , 1920-1927.	0.1	27
24	Component-based fragility analysis of transmission towers subjected to hurricane wind load. Engineering Structures, 2021, 242, 112586.	5.3	27
25	Fragility models of electrical conductors in power transmission networks subjected to hurricanes. Structural Safety, 2020, 82, 101890.	5.3	23
26	Framework for probabilistic simulation of power transmission network performance under hurricanes. Reliability Engineering and System Safety, 2022, 217, 108072.	8.9	23
27	Effect of the interaction of corrosion pits among multiple tensile rebars on the reliability of RC structures: Experimental and numerical investigation. Structural Safety, 2021, 93, 102115.	5.3	23
28	A random field based technique for the efficiency enhancement of bridge network life-cycle analysis under uncertainty. Engineering Structures, 2011, 33, 3208-3217.	5.3	19
29	Chloride migration characteristics and reliability of reinforced concrete highway structures in Pennsylvania. Construction and Building Materials, 2020, 231, 117045.	7.2	19
30	Non-destructive parametric system identification and damage detection in truss structures by static tests. Structure and Infrastructure Engineering, 2013, 9, 384-402.	3.7	17
31	Overview of Interdependency Models of Critical Infrastructure for Resilience Assessment. Natural Hazards Review, 2022, 23, .	1.5	14
32	Optimal Bridge Restoration Sequence for Resilient Transportation Networks. , 2014, , .		13
33	Policy-based disaster recovery planning model for interdependent infrastructure systems under uncertainty. Structure and Infrastructure Engineering, 2021, 17, 555-578.	3.7	12
34	Model for Estimating the Impact of Interdependencies on System Recovery. Journal of Infrastructure Systems, 2020, 26, .	1.8	11
35	Effective Sampling of Spatially Correlated Intensity Maps Using Hazard Quantization: Application to Seismic Events. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2018, 4, .	1.7	9
36	Hysteretic Model of Single-Bolted Angle Connections for Lattice Steel Towers. Journal of Engineering Mechanics - ASCE, 2019, 145, .	2.9	8

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37	A versatile technique for the optimal approximation of random processes by Functional Quantization. Applied Mathematics and Computation, 2015, 271, 935-958.	2.2	7
38	Optimal representation of multi-dimensional random fields with a moderate number of samples: Application to stochastic mechanics. Probabilistic Engineering Mechanics, 2016, 44, 53-65.	2.7	7
39	A Predictive Spatial Distribution Framework for Filovirus-Infected Bats. Scientific Reports, 2018, 8, 7970.	3.3	7
40	An Efficient Methodology That Simulates a Multi-Dimensional Non-Gaussian Field to Evaluate the Effect of the Spatial Distribution of Corrosion in a Steel Beam. , 2014, , .		6
41	Discussion of Feng et al. (2014). â€œStatistical reconstruction of two-phase random mediaâ€•[Comput. Struct. 137 (2014) 78â€“92]. Computers and Structures, 2016, 163, 83-85.	4.4	4
42	Fragility analysis for ballistic design. Structure and Infrastructure Engineering, 2017, 13, 1105-1116.	3.7	4
43	Correlated Maps for Regional Multi-Hazard Analysis: Ideas for a Novel Approach. , 2016, , 15-39.		4
44	Identification of Damaged Bars in Three-Dimensional Redundant Truss Structures by Means of Genetic Algorithms. Key Engineering Materials, 2007, 348-349, 229-232.	0.4	3
45	Quantification of the Approximations Introduced by Assumptions on the Marginal Distribution of the Demand for Highway Bridge Fragility Analysis. , 2014, , .		3
46	Computationally Efficient Simulation Techniques for Bridge Network Maintenance Optimization under Uncertainty. , 2011, , .		2
47	Quantitative Models for Interdependent Functionality and Recovery of Critical Infrastructure Systems. , 2022, , 127-229.		2
48	Uncertainty Modeling in Bridge Network Maintenance Optimization. , 2011, , .		1
49	Blockage Detection in Pipeline Networks for Gas and Oil. , 2014, , .		1
50	Classification Protocol and Comprehensive Database of Vertically Correlated Longitudinal Wind Velocities for Structural Analysis and Risk Assessment. Journal of Structural Engineering, 2022, 148, .	3.4	1
51	Optimal Generation of Multivariate Seismic Intensity Maps Using Hazard Quantization. ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems, Part A: Civil Engineering, 2022, 8, .	1.7	1
52	Restrictions and obstructions detection in pipe networks using incomplete and noisy flow and pressure steadyâ€state measurements. Structural Control and Health Monitoring, 2022, 29, e2854.	4.0	1