Rafael Holdorf Lopez

List of Publications by Year
in descending order

64	1,626	257450 24	302126 39
papers	citations	h-index	g-index

66	66	66	1141
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Bayesian algorithm with second order autoregressive errors for B-WIM weight estimation. Engineering Structures, 2022, 250, 113353.	5.3	6
2	Layout optimization of transmission line family structures. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2022, 44, 1.	1.6	3
3	Risk optimization using the Chernoff bound and stochastic gradient descent. Reliability Engineering and System Safety, 2022, 223, 108512.	8.9	5
4	Model Updating Using Hierarchical Bayesian Strategy Employing B-WIM Calibration Data. Journal of Bridge Engineering, 2022, 27, .	2.9	1
5	Reliability-based optimization of multiple Folded Pendulum TMDs through Efficient Global Optimization. Engineering Structures, 2022, 266, 114524.	5.3	8
6	A gradient based optimization procedure for finding axle weights in probabilistic bridge weigh-in-motion method. Canadian Journal of Civil Engineering, 2021, 48, 570-574.	1.3	4
7	A B-WIM algorithm considering the modeling of the bridge dynamic response. Engineering Structures, 2021, 228, 111533.	5.3	18
8	A PadÃ©-based fast frequency sweep approach for irregular large-scale building models subjected to seismic excitation. Structures, 2021, 34, 4376-4388.	3.6	5
9	Stochastic Gradient Descent for Risk Optimization. Lecture Notes in Mechanical Engineering, 2021, , 424-435.	0.4	1
10	Uncertainty Quantification in Optimization. Advances in Intelligent Systems and Computing, 2020, , 557-566.	0.6	0
11	Optimization of transmission towers considering the bolt slippage effect. Engineering Structures, 2020, 211, 110436.	5.3	11
12	Nesterov-aided stochastic gradient methods using Laplace approximation for Bayesian design optimization. Computer Methods in Applied Mechanics and Engineering, 2020, 363, 112909.	6.6	19
13	Stochastic Tunneling for Improving the Efficiency of Stochastic Efficient Global Optimization. Advances in Intelligent Systems and Computing, 2020, , 238-246.	0.6	0
14	Weight estimation on static B-WIM algorithms: A comparative study. Engineering Structures, 2019, 198, 109463.	5.3	26
15	A second order SAP algorithm for risk and reliability based design optimization. Reliability Engineering and System Safety, 2019, 190, 106499.	8.9	18
16	A performance measure approach for risk optimization. Structural and Multidisciplinary Optimization, 2019, 60, 927-947.	3.5	10
17	Monte Carlo integration with adaptive variance selection for improved stochastic efficient global optimization. Structural and Multidisciplinary Optimization, 2019, 60, 245-268.	3.5	7
18	A stochastic gradient approach for the reliability maximization of passively controlled structures. Engineering Structures, 2019, 186, 1-12.	5.3	20

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19	Topology design recommendations of transmission line towers to minimize the bolt slippage effect. Engineering Structures, 2019, 178, 286-297.	5.3	12
20	Methodology for the simultaneous optimization of location and parameters of friction dampers in the frequency domain. Engineering Optimization, 2018, , 1-15.	2.6	7
21	A probabilistic metric for comparing metaheuristic optimization algorithms. Structural Safety, 2018, 70, 59-70.	5.3	26
22	A state estimation approach based on stochastic expansions. Computational and Applied Mathematics, 2018, 37, 3399-3430.	1.3	6
23	An Efficient Global Optimization Approach for Reliability Maximization of Friction-Tuned Mass Damper-Controlled Structures. Shock and Vibration, 2018, 2018, 1-8.	0.6	6
24	Collapse and allowable displacements in the context of reliability analysis of nonlinear structures. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2017, 39, 1045-1051.	1.6	0
25	An efficient approach for the optimization of simply supported steel-concrete composite I-girder bridges. Advances in Engineering Software, 2017, 112, 31-45.	3.8	35
26	A gradient-based polynomial chaos approach for risk and reliability-based design optimization. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2017, 39, 2905-2915.	1.6	20
27	Probability of failure sensitivity analysis using polynomial expansion. Probabilistic Engineering Mechanics, 2017, 48, 76-84.	2.7	17
28	Optimum design of planar steel frames using the Search Group Algorithm. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2017, 39, 1405-1418.	1.6	11
29	Identification of a magnetic levitator using NARX-OBF models and genetic algorithm. International Journal of Modelling, Identification and Control, 2017, 28, 307.	0.2	1
30	OPTIMUM DESIGN OF MULTIPLE FRICTION TUNED MASS DAMPERS UNDER SEISMIC EXCITATIONS. , 2017, , .		1
31	Identification of a magnetic levitator using NARX-OBF models and genetic algorithm. International Journal of Modelling, Identification and Control, 2017, 28, 307.	0.2	0
32	A Backtracking Search Algorithm for the Simultaneous Size, Shape and Topology Optimization of Trusses. Latin American Journal of Solids and Structures, 2016, 13, 2922-2951.	1.0	7
33	A novel approach to the optimum design of MTMDs under seismic excitations. Structural Control and Health Monitoring, 2016, 23, 1290-1313.	4.0	48
34	Robust design optimization of TMDs in vehicleâ€“bridge coupled vibration problems. Engineering Structures, 2016, 126, 703-711.	5.3	58
35	Failure probability minimization of buildings through passive friction dampers. Structural Design of Tall and Special Buildings, 2016, 25, 869-885.	1.9	21
36	An improved hybrid optimization algorithm for vibration based-damage detection. Advances in Engineering Software, 2016, 93, 47-64.	3.8	24

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37	Design complexity control in truss optimization. Structural and Multidisciplinary Optimization, 2016, 54, 289-299.	3.5	27
38	A general RBDO decoupling approach for different reliability analysis methods. Structural and Multidisciplinary Optimization, 2016, 54, 317-332.	3.5	43
39	A procedure for the size, shape and topology optimization of transmission line tower structures. Engineering Structures, 2016, 111, 162-184.	5.3	46
40	Simultaneous optimization of force and placement of friction dampers under seismic loading. Engineering Optimization, 2016, 48, 582-602.	2.6	42
41	An approach for the global reliability based optimization of the size and shape of truss structures. Mechanics and Industry, 2015, 16, 603.	1.3	9
42	Overcoming the drawbacks of the FORM using a full characterization method. Structural Safety, 2015, 54, 57-63.	5.3	30
43	A firefly algorithm for the design of force and placement of friction dampers for control of man-induced vibrations in footbridges. Optimization and Engineering, 2015, 16, 633-661.	2.4	37
44	A non-intrusive methodology for the representation of crack growth stochastic processes. Mechanics Research Communications, 2015, 64, 23-28.	1.8	8
45	A comparison between robust and risk-based optimization under uncertainty. Structural and Multidisciplinary Optimization, 2015, 52, 479-492.	3.5	51
46	Search group algorithm: A new metaheuristic method for the optimization of truss structures. Computers and Structures, 2015, 153, 165-184.	4.4	153
47	Modeling of global and local stability in optimization of truss-like structures using frame elements. Structural and Multidisciplinary Optimization, 2015, 51, 1187-1198.	3.5	24
48	Advantages of employing a full characterization method over FORM in the reliability analysis of laminated composite plates. Composite Structures, 2014, 107, 635-642.	5.8	47
49	Optimization of a stochastic dynamical system. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2014, 36, 257-264.	1.6	2
50	Robust design optimization of friction dampers for structural response control. Structural Control and Health Monitoring, 2014, 21, 1240-1251.	4.0	40
51	A new algorithm for the robust optimization of rotor-bearing systems. Engineering Optimization, 2014, 46, 1123-1138.	2.6	22
52	Discussion of paper: â€œEstimating optimum parameters of tuned mass dampers using harmony searchâ€• [Eng. Struct. 33 (9) (2011) 2716â€“2723]. Engineering Structures, 2013, 54, 262-264.	5.3	14
53	A hybrid approach for damage detection of structures under operational conditions. Journal of Sound and Vibration, 2013, 332, 4241-4260.	3.9	25
54	Uncertainty quantification for algebraic systems of equations. Computers and Structures, 2013, 128, 189-202.	4.4	17

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55	Multimodal size, shape, and topology optimisation of truss structures using the Firefly algorithm. Advances in Engineering Software, 2013, 56, 23-37.	3.8	152
56	An approach to reliability-based shape and topology optimization of truss structures. Engineering Optimization, 2012, 44, 37-53.	2.6	30
57	Reliability Analysis of Water Distribution Networks Using the Adaptive Response Surface Approach. Journal of Hydraulic Engineering, 2012, 138, 227-236.	1.5	30
58	Reliability-based design optimization strategies based on FORM: a review. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2012, 34, 506-514.	1.6	93
59	Approximating the probability density function of the optimal point of an optimization problem. Engineering Optimization, 2011, 43, 281-303.	2.6	26
60	Robust optimization of a flexible rotor-bearing system using the Campbell diagram. Engineering Optimization, 2011, 43, 77-96.	2.6	44
61	A local-restart coupled strategy for simultaneous sizing and geometry truss optimization. Latin American Journal of Solids and Structures, 2011, 8, 335-349.	1.0	14
62	An approach for the reliability based design optimization of laminated composites. Engineering Optimization, 2011, 43, 1079-1094.	2.6	49
63	Optimization of hybrid laminated composites using a genetic algorithm. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2009, 31, 269-278.	1.6	22
64	Optimization of laminated composites considering different failure criteria. Composites Part B: Engineering, 2009, 40, 731-740.	12.0	67