

# Rafael Holdorf Lopez

## List of Publications by Year in descending order

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64  
papers

1,626  
citations

257101

24  
h-index

301761

39  
g-index

66  
all docs

66  
docs citations

66  
times ranked

1141  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Bayesian algorithm with second order autoregressive errors for B-WIM weight estimation. <i>Engineering Structures</i> , 2022, 250, 113353.	2.6	6
2	Layout optimization of transmission line family structures. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2022, 44, 1.	0.8	3
3	Risk optimization using the Chernoff bound and stochastic gradient descent. <i>Reliability Engineering and System Safety</i> , 2022, 223, 108512.	5.1	5
4	Model Updating Using Hierarchical Bayesian Strategy Employing B-WIM Calibration Data. <i>Journal of Bridge Engineering</i> , 2022, 27, .	1.4	1
5	Reliability-based optimization of multiple Folded Pendulum TMDs through Efficient Global Optimization. <i>Engineering Structures</i> , 2022, 266, 114524.	2.6	8
6	A gradient based optimization procedure for finding axle weights in probabilistic bridge weigh-in-motion method. <i>Canadian Journal of Civil Engineering</i> , 2021, 48, 570-574.	0.7	4
7	A B-WIM algorithm considering the modeling of the bridge dynamic response. <i>Engineering Structures</i> , 2021, 228, 111533.	2.6	18
8	A Pad�-based fast frequency sweep approach for irregular large-scale building models subjected to seismic excitation. <i>Structures</i> , 2021, 34, 4376-4388.	1.7	5
9	Stochastic Gradient Descent for Risk Optimization. <i>Lecture Notes in Mechanical Engineering</i> , 2021, , 424-435.	0.3	1
10	Uncertainty Quantification in Optimization. <i>Advances in Intelligent Systems and Computing</i> , 2020, , 557-566.	0.5	0
11	Optimization of transmission towers considering the bolt slippage effect. <i>Engineering Structures</i> , 2020, 211, 110436.	2.6	11
12	Nesterov-aided stochastic gradient methods using Laplace approximation for Bayesian design optimization. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 363, 112909.	3.4	19
13	Stochastic Tunneling for Improving the Efficiency of Stochastic Efficient Global Optimization. <i>Advances in Intelligent Systems and Computing</i> , 2020, , 238-246.	0.5	0
14	Weight estimation on static B-WIM algorithms: A comparative study. <i>Engineering Structures</i> , 2019, 198, 109463.	2.6	26
15	A second order SAP algorithm for risk and reliability based design optimization. <i>Reliability Engineering and System Safety</i> , 2019, 190, 106499.	5.1	18
16	A performance measure approach for risk optimization. <i>Structural and Multidisciplinary Optimization</i> , 2019, 60, 927-947.	1.7	10
17	Monte Carlo integration with adaptive variance selection for improved stochastic efficient global optimization. <i>Structural and Multidisciplinary Optimization</i> , 2019, 60, 245-268.	1.7	7
18	A stochastic gradient approach for the reliability maximization of passively controlled structures. <i>Engineering Structures</i> , 2019, 186, 1-12.	2.6	20

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19	Topology design recommendations of transmission line towers to minimize the bolt slippage effect. <i>Engineering Structures</i> , 2019, 178, 286-297.	2.6	12
20	Methodology for the simultaneous optimization of location and parameters of friction dampers in the frequency domain. <i>Engineering Optimization</i> , 2018, , 1-15.	1.5	7
21	A probabilistic metric for comparing metaheuristic optimization algorithms. <i>Structural Safety</i> , 2018, 70, 59-70.	2.8	26
22	A state estimation approach based on stochastic expansions. <i>Computational and Applied Mathematics</i> , 2018, 37, 3399-3430.	1.3	6
23	An Efficient Global Optimization Approach for Reliability Maximization of Friction-Tuned Mass Damper-Controlled Structures. <i>Shock and Vibration</i> , 2018, 2018, 1-8.	0.3	6
24	Collapse and allowable displacements in the context of reliability analysis of nonlinear structures. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2017, 39, 1045-1051.	0.8	0
25	An efficient approach for the optimization of simply supported steel-concrete composite I-girder bridges. <i>Advances in Engineering Software</i> , 2017, 112, 31-45.	1.8	35
26	A gradient-based polynomial chaos approach for risk and reliability-based design optimization. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2017, 39, 2905-2915.	0.8	20
27	Probability of failure sensitivity analysis using polynomial expansion. <i>Probabilistic Engineering Mechanics</i> , 2017, 48, 76-84.	1.3	17
28	Optimum design of planar steel frames using the Search Group Algorithm. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2017, 39, 1405-1418.	0.8	11
29	Identification of a magnetic levitator using NARX-ObF models and genetic algorithm. <i>International Journal of Modelling, Identification and Control</i> , 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. <i>International Journal of Modelling, Identification and Control</i> , 2017, 28, 307.	0.2	0
32	A Backtracking Search Algorithm for the Simultaneous Size, Shape and Topology Optimization of Trusses. <i>Latin American Journal of Solids and Structures</i> , 2016, 13, 2922-2951.	0.6	7
33	A novel approach to the optimum design of MTMDs under seismic excitations. <i>Structural Control and Health Monitoring</i> , 2016, 23, 1290-1313.	1.9	48
34	Robust design optimization of TMDs in vehicle-bridge coupled vibration problems. <i>Engineering Structures</i> , 2016, 126, 703-711.	2.6	58
35	Failure probability minimization of buildings through passive friction dampers. <i>Structural Design of Tall and Special Buildings</i> , 2016, 25, 869-885.	0.9	21
36	An improved hybrid optimization algorithm for vibration based-damage detection. <i>Advances in Engineering Software</i> , 2016, 93, 47-64.	1.8	24

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37	Design complexity control in truss optimization. <i>Structural and Multidisciplinary Optimization</i> , 2016, 54, 289-299.	1.7	27
38	A general RBDO decoupling approach for different reliability analysis methods. <i>Structural and Multidisciplinary Optimization</i> , 2016, 54, 317-332.	1.7	43
39	A procedure for the size, shape and topology optimization of transmission line tower structures. <i>Engineering Structures</i> , 2016, 111, 162-184.	2.6	46
40	Simultaneous optimization of force and placement of friction dampers under seismic loading. <i>Engineering Optimization</i> , 2016, 48, 582-602.	1.5	42
41	An approach for the global reliability based optimization of the size and shape of truss structures. <i>Mechanics and Industry</i> , 2015, 16, 603.	0.5	9
42	Overcoming the drawbacks of the FORM using a full characterization method. <i>Structural Safety</i> , 2015, 54, 57-63.	2.8	30
43	A firefly algorithm for the design of force and placement of friction dampers for control of man-induced vibrations in footbridges. <i>Optimization and Engineering</i> , 2015, 16, 633-661.	1.3	37
44	A non-intrusive methodology for the representation of crack growth stochastic processes. <i>Mechanics Research Communications</i> , 2015, 64, 23-28.	1.0	8
45	A comparison between robust and risk-based optimization under uncertainty. <i>Structural and Multidisciplinary Optimization</i> , 2015, 52, 479-492.	1.7	51
46	Search group algorithm: A new metaheuristic method for the optimization of truss structures. <i>Computers and Structures</i> , 2015, 153, 165-184.	2.4	153
47	Modeling of global and local stability in optimization of truss-like structures using frame elements. <i>Structural and Multidisciplinary Optimization</i> , 2015, 51, 1187-1198.	1.7	24
48	Advantages of employing a full characterization method over FORM in the reliability analysis of laminated composite plates. <i>Composite Structures</i> , 2014, 107, 635-642.	3.1	47
49	Optimization of a stochastic dynamical system. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2014, 36, 257-264.	0.8	2
50	Robust design optimization of friction dampers for structural response control. <i>Structural Control and Health Monitoring</i> , 2014, 21, 1240-1251.	1.9	40
51	A new algorithm for the robust optimization of rotor-bearing systems. <i>Engineering Optimization</i> , 2014, 46, 1123-1138.	1.5	22
52	Discussion of paper: "Estimating optimum parameters of tuned mass dampers using harmony search" [Eng. Struct. 33 (9) (2011) 2716-2723]. <i>Engineering Structures</i> , 2013, 54, 262-264.	2.6	14
53	A hybrid approach for damage detection of structures under operational conditions. <i>Journal of Sound and Vibration</i> , 2013, 332, 4241-4260.	2.1	25
54	Uncertainty quantification for algebraic systems of equations. <i>Computers and Structures</i> , 2013, 128, 189-202.	2.4	17

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55	Multimodal size, shape, and topology optimisation of truss structures using the Firefly algorithm. <i>Advances in Engineering Software</i> , 2013, 56, 23-37.	1.8	152
56	An approach to reliability-based shape and topology optimization of truss structures. <i>Engineering Optimization</i> , 2012, 44, 37-53.	1.5	30
57	Reliability Analysis of Water Distribution Networks Using the Adaptive Response Surface Approach. <i>Journal of Hydraulic Engineering</i> , 2012, 138, 227-236.	0.7	30
58	Reliability-based design optimization strategies based on FORM: a review. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2012, 34, 506-514.	0.8	93
59	Approximating the probability density function of the optimal point of an optimization problem. <i>Engineering Optimization</i> , 2011, 43, 281-303.	1.5	26
60	Robust optimization of a flexible rotor-bearing system using the Campbell diagram. <i>Engineering Optimization</i> , 2011, 43, 77-96.	1.5	44
61	A local-restart coupled strategy for simultaneous sizing and geometry truss optimization. <i>Latin American Journal of Solids and Structures</i> , 2011, 8, 335-349.	0.6	14
62	An approach for the reliability based design optimization of laminated composites. <i>Engineering Optimization</i> , 2011, 43, 1079-1094.	1.5	49
63	Optimization of hybrid laminated composites using a genetic algorithm. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2009, 31, 269-278.	0.8	22
64	Optimization of laminated composites considering different failure criteria. <i>Composites Part B: Engineering</i> , 2009, 40, 731-740.	5.9	67