Felipe A C Viana

List of Publications by Year
in descending order

55	2,266	361413	414414
papers	citations	20 h-index	32 g-index

55	55	55	1384
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Multiple surrogates: how cross-validation errors can help us to obtain the best predictor. Structural and Multidisciplinary Optimization, 2009, 39, 439-457.	3.5	339
2	Special Section on Multidisciplinary Design Optimization: Metamodeling in Multidisciplinary Design Optimization: How Far Have We Really Come?. AIAA Journal, 2014, 52, 670-690.	2.6	314
3	An algorithm for fast optimal Latin hypercube design of experiments. International Journal for Numerical Methods in Engineering, 2010, 82, 135-156.	2.8	237
4	Efficient global optimization algorithm assisted by multiple surrogate techniques. Journal of Global Optimization, 2013, 56, 669-689.	1.8	212
5	Design and Analysis of Computer Experiments in Multidisciplinary Design Optimization: A Review of How Far We Have Come - Or Not. , 2008, , .		191
6	A Tutorial on Latin Hypercube Design of Experiments. Quality and Reliability Engineering International, 2016, 32, 1975-1985.	2.3	113
7	Physics-Informed Neural Networks for Missing Physics Estimation in Cumulative Damage Models: A Case Study in Corrosion Fatigue. Journal of Computing and Information Science in Engineering, 2020, 20, .	2.7	64
8	Hybrid physics-informed neural networks for lithium-ion battery modeling and prognosis. Journal of Power Sources, 2021, 513, 230526.	7.8	61
9	A tutorial on solving ordinary differential equations using Python and hybrid physics-informed neural network. Engineering Applications of Artificial Intelligence, 2020, 96, 103996.	8.1	59
10	Tuning dynamic vibration absorbers by using ant colony optimization. Computers and Structures, 2008, 86, 1539-1549.	4.4	48
11	Making the Most Out of Surrogate Models: Tricks of the Trade. , 2010, , .		43
12	Hybrid physics-informed neural networks for main bearing fatigue prognosis with visual grease inspection. Computers in Industry, 2021, 125, 103386.	9.9	43
13	Estimating model inadequacy in ordinary differential equations with physics-informed neural networks. Computers and Structures, 2021, 245, 106458.	4.4	42
14	Using Cross Validation to Design Conservative Surrogates. AIAA Journal, 2010, 48, 2286-2298.	2.6	40
15	A hybrid physics-informed neural network for main bearing fatigue prognosis under grease quality variation. Mechanical Systems and Signal Processing, 2022, 171, 108875.	8.0	35
16	Lightweight design of vehicle parameters under crashworthiness using conservative surrogates. Computers in Industry, 2013, 64, 280-289.	9.9	34
17	Optimization of aircraft structural components by using nature-inspired algorithms and multi-fidelity approximations. Journal of Global Optimization, 2009, 45, 427-449.	1.8	32
18	Why Not Run the Efficient Global Optimization Algorithm with Multiple Surrogates?. , 2010, , .		31

#	Article	IF	Citations
19	A survey of modeling for prognosis and health management of industrial equipment. Advanced Engineering Informatics, 2021, 50, 101404.	8.0	31
20	A Survey of Bayesian Calibration and Physics-informed Neural Networks in Scientific Modeling. Archives of Computational Methods in Engineering, 2021, 28, 3801-3830.	10.2	27
21	Cumulative Damage Modeling with Recurrent Neural Networks. AIAA Journal, 2020, 58, 5459-5471.	2.6	26
22	Surrogate modeling: tricks that endured the test of time and some recent developments. Structural and Multidisciplinary Optimization, 2021, 64, 2881-2908.	3.5	24
23	Fleet Prognosis with Physics-informed Recurrent Neural Networks. , 0, , .		23
24	Cross Validation Can Estimate How Well Prediction Variance Correlates with Error. AIAA Journal, 2009, 47, 2266-2270.	2.6	22
25	Adjusting a torsional vibration damper model with physics-informed neural networks. Mechanical Systems and Signal Processing, 2021, 154, 107552.	8.0	20
26	Sequential sampling for contour estimation with concurrent function evaluations. Structural and Multidisciplinary Optimization, 2012, 45, 615-618.	3.5	16
27	Enabling high-order integration of fatigue crack growth with surrogate modeling. International Journal of Fatigue, 2012, 43, 150-159.	5.7	15
28	Identification of external forces in mechanical systems by using LifeCycle model and stress-stiffening effect. Mechanical Systems and Signal Processing, 2007, 21, 2900-2917.	8.0	14
29	Physics-Informed Neural Networks for Corrosion-Fatigue Prognosis. Proceedings of the Annual Conference of the Prognostics and Health Management Society Prognostics and Health Management Society Conference, 2019, 11, .	0.3	13
30	Wind Turbine Main Bearing Fatigue Life Estimation with Physics-informed Neural Networks. Proceedings of the Annual Conference of the Prognostics and Health Management Society Prognostics and Health Management Society Conference, 2019, 11, .	0.3	11
31	Importing Uncertainty Estimates from One Surrogate to Another. , 2009, , .		10
32	Physics-Informed Neural Networks for Bias Compensation in Corrosion-Fatigue. , 2020, , .		7
33	Efficient Global Optimization with Experimental Data: Revisiting the Paper Helicopter Design. , 2011, , .		6
34	Multimodal Particle Swarm Optimization: Enhancements and Applications. , 2012, , .		6
35	Satellite Image Classification and Segmentation with Transfer Learning. , 2020, , .		6
36	Surrogate modelling for characterising the performance of a dielectric barrier discharge plasma actuator. International Journal of Computational Fluid Dynamics, 2010, 24, 281-301.	1.2	5

#	Article	IF	Citations
37	Onshore wind turbine main bearing reliability and its implications in fleet management. , 2019, , .		5
38	Quadcopter Control Optimization through Machine Learning. , 2020, , .		5
39	Early life failures and services of industrial asset fleets. Reliability Engineering and System Safety, 2021, 205, 107225.	8.9	5
40	Control-Oriented Design Using H-infinity Synthesis and Multiple Surrogates. , 2010, , .		4
41	Estimating Parameters and Discrepancy of Computer Models with Graphs and Neural Networks. , 2020, , .		4
42	Ensemble of hybrid neural networks to compensate for epistemic uncertainties: a case study in system prognosis. Soft Computing, 2022, 26, 6157-6173.	3.6	4
43	Identification of a Non-Linear Landing Gear Model Using Nature-Inspired Optimization. Shock and Vibration, 2008, 15, 257-272.	0.6	3
44	Information gain-based inspection scheduling for fatigued aircraft components. , 2017, , .		3
45	Quadcopter Soft Vertical Landing Control with Hybrid Physics-informed Machine Learning. , 2021, , .		3
46	Developing a Probabilistic Load Spectrum for Fatigue Modeling. , 2017, , .		2
47	A Multi-step Machine Learning Approach for Short Axis MR Images Segmentation. Lecture Notes in Computer Science, 2021, , 122-133.	1.3	2
48	Usage-based Lifing of Lithium-Ion Battery with Hybrid Physics-Informed Neural Networks. , 2021, , .		2
49	Operational guide to stabilize, standardize and increase power plant efficiency. Applied Energy, 2022, 315, 118973.	10.1	2
50	Probability of Failure Uncertainty Quantification with Kriging. , 2012, , .		1
51	Power System Identification Through Simultaneous Model Selection and Bayesian Calibration. , 2014, , .		1
52	Design Optimization of a Bendable UAV Wing Under Uncertainty. , 2010, , .		0
53	Temperature-Based Optimization of Film Cooling in Gas Turbine Hot Gas Path Components. , 2013, , .		0
54	A Nonstationary Uncertainty Model and Bayesian Calibration of Strain-Life Models. Journal of Verification, Validation and Uncertainty Quantification, 2021, 6, .	0.4	0

#	Article	IF	Citations
55	A Probabilistic Hybrid Model for Main Bearing Fatigue Considering Uncertainty in Grease Quality. , 2021, , .		0