Leifur Leifsson

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/64538/publications.pdf

Version: 2024-02-01

97	1,422	393982	395343
papers	citations	19 h-index	33 g-index

106	106	106	846
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Surrogate-Based Methods. Studies in Computational Intelligence, 2011, , 33-59.	0.7	181
2	Multi-fidelity design optimization of transonic airfoils using physics-based surrogate modeling and shape-preserving response prediction. Journal of Computational Science, 2010, 1, 98-106.	1.5	87
3	Surrogate-Based Aerodynamic Shape Optimization by Variable-Resolution Models. AIAA Journal, 2013, 51, 94-106.	1.5	81
4	Simulation-Driven Design by Knowledge-Based Response Correction Techniques. , 2016, , .		66
5	Multi-fidelity robust aerodynamic design optimization under mixed uncertainty. Aerospace Science and Technology, 2015, 45, 17-29.	2.5	56
6	Surrogate-based aerodynamic shape optimization for delaying airfoil dynamic stall using Kriging regression and infill criteria. Aerospace Science and Technology, 2021, 111, 106555.	2.5	52
7	Multiobjective Aerodynamic Optimization by Variable-Fidelity Models and Response Surface Surrogates. AIAA Journal, 2016, 54, 531-541.	1.5	51
8	Fast Optimization of Integrated Photonic Components Using Response Correction and Local Approximation Surrogates. Procedia Computer Science, 2015, 51, 825-833.	1.2	48
9	Rapid EM-Driven Antenna Dimension Scaling Through Inverse Modeling. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 714-717.	2.4	48
10	Aerodynamic shape optimization by variable-fidelity computational fluid dynamics models: A review of recent progress. Journal of Computational Science, 2015, 10, 45-54.	1.5	40
11	Computational Optimization, Modelling and Simulation: Recent Trends and Challenges. Procedia Computer Science, 2013, 18, 855-860.	1.2	36
12	Efficient yield estimation of multiband patch antennas by polynomial chaosâ€based Kriging. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2020, 33, e2722.	1.2	36
13	Reliable emâ€driven microwave design optimization using manifold mapping and adjoint sensitivity. Microwave and Optical Technology Letters, 2013, 55, 809-813.	0.9	34
14	Knowledge-Based Airfoil Shape Optimization Using Space Mapping. , 2012, , .		33
15	Compact Dual-Polarized Corrugated Horn Antenna for Satellite Communications. IEEE Transactions on Antennas and Propagation, 2020, 68, 5122-5129.	3.1	30
16	Optimum aerodynamic shape design under uncertainty by utility theory and metamodeling. Aerospace Science and Technology, 2019, 95, 105464.	2.5	26
17	Aerodynamic inverse design using multifidelity models and manifold mapping. Aerospace Science and Technology, 2019, 85, 371-385.	2.5	26
18	A Wideband Corrugated Ridged Horn Antenna With Enhanced Gain and Stable Phase Center for X- and Ku-Band Applications. IEEE Antennas and Wireless Propagation Letters, 2019, 18, 1031-1035.	2.4	25

#	Article	IF	Citations
19	Surrogate modelling and optimization using shape-preserving response prediction: A review. Engineering Optimization, 2016, 48, 476-496.	1.5	24
20	Multi-level CFD-based Airfoil Shape Optimization With Automated Low-fidelity Model Selection. Procedia Computer Science, 2013, 18, 889-898.	1.2	23
21	Optimal shape design of multi-element trawl-doors using local surrogate models. Journal of Computational Science, 2015, 10, 55-62.	1.5	20
22	Shape Optimization of Trawl-doors Using Variable-fidelity Models and Space Mapping. Procedia Computer Science, 2015, 51, 905-913.	1.2	19
23	Fast Multi-Objective Aerodynamic Optimization Using Sequential Domain Patching and Multifidelity Models. Journal of Aircraft, 2020, 57, 388-398.	1.7	19
24	Multi-fidelity aerodynamic design trade-off exploration using point-by-point Pareto set identification. Aerospace Science and Technology, 2018, 79, 399-412.	2.5	18
25	Robust variableâ€fidelity optimization of microwave filters using coâ€Kriging and trust regions. Microwave and Optical Technology Letters, 2013, 55, 765-769.	0.9	16
26	Variable-Fidelity Aerodynamic Shape Optimization. Studies in Computational Intelligence, 2011, , 179-210.	0.7	14
27	Variable-fidelity CFD models and co-Kriging for expedited multi-objective aerodynamic design optimization. Engineering Computations, 2016, 33, 2320-2338.	0.7	14
28	Optimisation of hybrid tandem metal active gas welding using Gaussian process regression. Science and Technology of Welding and Joining, 2020, 25, 208-217.	1.5	14
29	Computational Optimization, Modelling and Simulation: Past, Present and Future. Procedia Computer Science, 2014, 29, 754-758.	1.2	13
30	Robust Airfoil Optimization Under Inherent and Model-Form Uncertainties Using Stochastic Expansions. , 2012, , .		12
31	Surrogate-based Airfoil Design with Space Mapping and Adjoint Sensitivity. Procedia Computer Science, 2015, 51, 795-804.	1.2	12
32	Adaptive Response Correction for Surrogate-Based Airfoil Shape Optimization. , 2012, , .		11
33	Reliable reduced cost modeling and design optimization of microwave filters using coâ€kriging. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2013, 26, 493-505.	1.2	11
34	Fast Low-fidelity Wing Aerodynamics Model for Surrogate-based Shape Optimization. Procedia Computer Science, 2014, 29, 811-820.	1.2	11
35	Simulation-driven design of low-speed wind tunnel contraction. Journal of Computational Science, 2015, 7, 1-12.	1.5	11
36	Expedited constrained multi-objective aerodynamic shape optimization by means of physics-based surrogates. Applied Mathematical Modelling, 2016, 40, 7204-7215.	2.2	11

#	Article	IF	Citations
37	Design strategies for multi-objective optimization of aerodynamic surfaces. Engineering Computations, 2017, 34, 1724-1753.	0.7	11
38	Multifidelity aerodynamic flow field prediction using random forest-based machine learning. Aerospace Science and Technology, 2022, 123, 107449.	2.5	11
39	Multifidelity model-assisted probability of detection via Cokriging. NDT and E International, 2019, 108, 102156.	1.7	10
40	Single- and Multipoint Aerodynamic Shape Optimization Using Multifidelity Models and Manifold Mapping. Journal of Aircraft, 2021, 58, 591-608.	1.7	10
41	Response correction techniques for surrogate-based design optimization of microwave structures. International Journal of RF and Microwave Computer-Aided Engineering, 2012, 22, 211-223.	0.8	9
42	Supersonic Airfoil Shape Optimization by Variable-fidelity Models and Manifold Mapping. Procedia Computer Science, 2016, 80, 1103-1113.	1.2	9
43	Multi-fidelity design optimization of transonic airfoils using shape-preserving response prediction. Procedia Computer Science, 2010, 1, 1311-1320.	1.2	8
44	Metamodeling-based parametric optimization of DBD plasma actuation to suppress flow separation over a wind turbine airfoil model. Acta Mechanica Sinica/Lixue Xuebao, 2020, 36, 260-274.	1.5	8
45	Efficient Model-Assisted Probability of Detection and Sensitivity Analysis for Ultrasonic Testing Simulations Using Stochastic Metamodeling. Journal of Nondestructive Evaluation, Diagnostics and Prognostics of Engineering Systems, 2019, 2, .	0.7	8
46	Inverse Design of Transonic Airfoils Using Variable-Resolution Modeling and Pressure Distribution Alignment. Procedia Computer Science, 2011, 4, 1234-1243.	1.2	7
47	Inverse airfoil design using variable-resolution models and shape-preserving response prediction. Aerospace Science and Technology, 2014, 39, 513-522.	2.5	7
48	Multi-Objective Design Optimization of Planar Yagi-Uda Antenna Using Physics-Based Surrogates and Rotational Design Space Reduction. Procedia Computer Science, 2015, 51, 885-894.	1.2	7
49	Introduction to Surrogate Modeling and Surrogate-Based Optimization. , 2016, , 31-61.		7
50	Multipoint Response Correction for Reducedâ€Cost EMâ€Simulationâ€Driven Design of Antenna Structures. Microwave and Optical Technology Letters, 2013, 55, 2070-2074.	0.9	6
51	Efficient uncertainty propagation for MAPOD via polynomial chaos-based Kriging. Engineering Computations, 2019, 37, 73-92.	0.7	5
52	Multifidelity Modeling by Polynomial Chaos-Based Cokriging to Enable Efficient Model-Based Reliability Analysis of NDT Systems. Journal of Nondestructive Evaluation, 2020, 39, 1.	1.1	5
53	Computational Optimization, Modelling and Simulation: Smart Algorithms and Better Models. Procedia Computer Science, 2012, 9, 852-856.	1.2	4
54	Physics-based Surrogates for Low-cost Modeling of Microwave Structures. Procedia Computer Science, 2013, 18, 869-878.	1.2	4

#	Article	IF	Citations
55	Surrogate Modeling of Ultrasonic Nondestructive Evaluation Simulations. Procedia Computer Science, 2016, 80, 1114-1124.	1.2	4
56	Airfoil Design Under Uncertainty Using Non-Intrusive Polynomial Chaos Theory and Utility Functions. Procedia Computer Science, 2017, 108, 1493-1499.	1.2	4
57	Advances in simulation-driven optimization and modeling. Journal of Computational Methods in Sciences and Engineering, 2012, 12, 1-4.	0.1	3
58	Low-cost EM-simulation-driven Multi-objective Optimization of Antennas. Procedia Computer Science, 2014, 29, 790-799.	1.2	3
59	Expedited design optimization of compact microwave structures using adjoint sensitivities and space mapping. , 2015, , .		3
60	Efficient knowledge-based optimization of expensive computational models using adaptive response correction. Journal of Computational Science, 2015, 11, 1-11.	1.5	3
61	Trawl-door Shape Optimization by Space-mapping-corrected CFD Models and Kriging Surrogates. Procedia Computer Science, 2016, 80, 1061-1070.	1.2	3
62	Aeroelastic Flutter Prediction Using Multifidelity Modeling of the Generalized Aerodynamic Influence Coefficients. AIAA Journal, 2020, 58, 4764-4780.	1.5	3
63	Numerical Optimization and Experimental Validation of a Low Speed Wind Tunnel Contraction. Procedia Computer Science, 2012, 9, 822-831.	1.2	2
64	Scaling Properties of Multi-Fidelity Shape Optimization Algorithms. Procedia Computer Science, 2012, 9, 832-841.	1.2	2
65	Surrogate modeling of ultrasonic simulations using data-driven methods. AIP Conference Proceedings, 2017, , .	0.3	2
66	Fast Yield Estimation of Multi-Band Patch Antennas by PC-Kriging. , 2019, , .		2
67	Multifidelity modeling similarity conditions for airfoil dynamic stall prediction with manifold mapping. Engineering Computations, 2021, ahead-of-print, .	0.7	2
68	LOW-COST PARAMETER EXTRACTION AND SURROGATE OPTIMIZATION FOR SPACE MAPPING DESIGN USING EM-BASED COARSE MODELS. Progress in Electromagnetics Research B, 2011, 31, 117-137.	0.7	1
69	Low-Fidelity Model Mesh Density and the Performance of Variable-Resolution Shape Optimization Algorithms. Procedia Computer Science, 2012, 9, 842-851.	1.2	1
70	Knowledge-Based Response Correction and Adaptive Design Specifications for Microwave Design Optimization. Procedia Computer Science, 2012, 9, 764-773.	1.2	1
71	Simulation-driven design using surrogate-based optimization and variable-resolution computational fluid dynamic models. Journal of Computational Methods in Sciences and Engineering, 2012, 12, 75-98.	0.1	1
72	Shape-Preserving Response Prediction for Engineering Design Optimization. Procedia Computer Science, 2013, 18, 879-888.	1.2	1

#	Article	IF	Citations
73	Nested Space Mapping Technology for Expedite EM-driven Design of Compact RF/Microwave Components. Procedia Computer Science, 2014, 29, 769-778.	1.2	1
74	Fast multi-objective design optimization of compact UWB matching transformers using variable-fidelity EM simulations and design space reduction. , 2015, , .		1
75	Cost-efficient modeling of input characteristics of narrow-band antennas using response features. , 2016, , .		1
76	Sequential Domain Patching for Computationally Feasible Multi-objective Optimization of Expensive Electromagnetic Simulation Models. Procedia Computer Science, 2016, 80, 1093-1102.	1.2	1
77	Expedited design of dual-band antennas using feature-based optimization. , 2016, , .		1
78	Expedite Design of Variable-Topology Broadband Hybrid Couplers for Size Reduction Using Surrogate-Based Optimization and Co-Simulation Coarse Models. Procedia Computer Science, 2017, 108, 1483-1492.	1.2	1
79	Adaptive response prediction for aerodynamic shape optimization. Engineering Computations, 2017, 34, 1485-1500.	0.7	1
80	Model-assisted probability of detection of flaws in aluminum blocks using polynomial chaos expansions. AIP Conference Proceedings, 2018, , .	0.3	1
81	Efficient Global Sensitivity Analysis of Model-Based Ultrasonic Nondestructive Testing Systems Using Machine Learning and Sobolâ€™ Indices. Journal of Nondestructive Evaluation, Diagnostics and Prognostics of Engineering Systems, 2021, 4, .	0.7	1
82	Iterative Global Sensitivity Analysis Algorithm with Neural Network Surrogate Modeling. Lecture Notes in Computer Science, 2021, , 298-311.	1.0	1
83	Expedited Simulation-Driven Multi-Objective Design Optimization of Quasi-Isotropic Dielectric Resonator Antenna. Springer Proceedings in Mathematics and Statistics, 2016, , 207-231.	0.1	1
84	Computational optimization, modelling and simulation: Recent advances and overview. Procedia Computer Science, 2011, 4, 1230-1233.	1.2	0
85	Cost-efficient Microwave Design Optimization Using Adaptive Response Scaling. Procedia Computer Science, 2016, 80, 1042-1050.	1.2	0
86	Expedited Dimension Scaling of Microwave and Antenna Structures Using Inverse Surrogates. Procedia Computer Science, 2016, 80, 1051-1060.	1.2	0
87	Pareto Ranking Bisection Algorithm for EM-Driven Multi-Objective Design of Antennas in Highly-Dimensional Parameter Spaces. Procedia Computer Science, 2017, 108, 1453-1462.	1.2	0
88	Size reduction of ultraâ€wideband antennas with efficiency and matching constraints. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2018, 31, e2336.	1.2	0
89	Fast Uncertainty Propagation of Ultrasonic Testing Simulations for MAPOD and Sensitivity Analysis. , 2018, , .		0
90	Multifidelity Modeling of Ultrasonic Testing Simulations with Cokriging. , 2018, , .		0

#	Article	IF	Citations
91	Reduced-Cost Design Optimization of High-Frequency Structures Using Adaptive Jacobian Updates. Lecture Notes in Computer Science, 2019, , 508-522.	1.0	0
92	Improved Design Closure of Compact Microwave Circuits by Means of Performance Requirement Adaptation. Lecture Notes in Computer Science, 2021, , 185-199.	1.0	0
93	Modeling the Contribution of Agriculture Towards Soil Nitrogen Surplus in Iowa. Lecture Notes in Computer Science, 2021, , 257-268.	1.0	0
94	Expedited Trust-Region-Based Design Closure of Antennas by Variable-Resolution EM Simulations. Lecture Notes in Computer Science, 2021, , 91-104.	1.0	0
95	On Fast Multi-objective Optimization of Antenna Structures Using Pareto Front Triangulation and Inverse Surrogates. Lecture Notes in Computer Science, 2021, , 116-130.	1.0	0
96	Explicit Size-Reduction-Oriented Design of a Compact Microstrip Rat-Race Coupler Using Surrogate-Based Optimization Methods. Lecture Notes in Computer Science, 2018, , 584-592.	1.0	0
97	Reduced-Cost Constrained Modeling of Microwave and Antenna Components: Recent Advances. Lecture Notes in Computer Science, 2020, , 40-56.	1.0	0