

Leifur Leifsson

List of Publications by Year in descending order

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Version: 2024-02-01

97
papers

1,422
citations

393982

19
h-index

395343

33
g-index

106
all docs

106
docs citations

106
times ranked

846
citing authors

#	ARTICLE	IF	CITATIONS
1	Multifidelity aerodynamic flow field prediction using random forest-based machine learning. <i>Aerospace Science and Technology</i> , 2022, 123, 107449.	2.5	11
2	Improved Design Closure of Compact Microwave Circuits by Means of Performance Requirement Adaptation. <i>Lecture Notes in Computer Science</i> , 2021, , 185-199.	1.0	0
3	Modeling the Contribution of Agriculture Towards Soil Nitrogen Surplus in Iowa. <i>Lecture Notes in Computer Science</i> , 2021, , 257-268.	1.0	0
4	Surrogate-based aerodynamic shape optimization for delaying airfoil dynamic stall using Kriging regression and infill criteria. <i>Aerospace Science and Technology</i> , 2021, 111, 106555.	2.5	52
5	Single- and Multipoint Aerodynamic Shape Optimization Using Multifidelity Models and Manifold Mapping. <i>Journal of Aircraft</i> , 2021, 58, 591-608.	1.7	10
6	Efficient Global Sensitivity Analysis of Model-Based Ultrasonic Nondestructive Testing Systems Using Machine Learning and Sobol' Indices. <i>Journal of Nondestructive Evaluation, Diagnostics and Prognostics of Engineering Systems</i> , 2021, 4, .	0.7	1
7	Multifidelity modeling similarity conditions for airfoil dynamic stall prediction with manifold mapping. <i>Engineering Computations</i> , 2021, ahead-of-print, .	0.7	2
8	Expedited Trust-Region-Based Design Closure of Antennas by Variable-Resolution EM Simulations. <i>Lecture Notes in Computer Science</i> , 2021, , 91-104.	1.0	0
9	Iterative Global Sensitivity Analysis Algorithm with Neural Network Surrogate Modeling. <i>Lecture Notes in Computer Science</i> , 2021, , 298-311.	1.0	1
10	On Fast Multi-objective Optimization of Antenna Structures Using Pareto Front Triangulation and Inverse Surrogates. <i>Lecture Notes in Computer Science</i> , 2021, , 116-130.	1.0	0
11	Optimisation of hybrid tandem metal active gas welding using Gaussian process regression. <i>Science and Technology of Welding and Joining</i> , 2020, 25, 208-217.	1.5	14
12	Aeroelastic Flutter Prediction Using Multifidelity Modeling of the Generalized Aerodynamic Influence Coefficients. <i>AIAA Journal</i> , 2020, 58, 4764-4780.	1.5	3
13	Fast Multi-Objective Aerodynamic Optimization Using Sequential Domain Patching and Multifidelity Models. <i>Journal of Aircraft</i> , 2020, 57, 388-398.	1.7	19
14	Compact Dual-Polarized Corrugated Horn Antenna for Satellite Communications. <i>IEEE Transactions on Antennas and Propagation</i> , 2020, 68, 5122-5129.	3.1	30
15	Efficient yield estimation of multiband patch antennas by polynomial chaos-based Kriging. <i>International Journal of Numerical Modelling: Electronic Networks, Devices and Fields</i> , 2020, 33, e2722.	1.2	36
16	Multifidelity Modeling by Polynomial Chaos-Based Cokriging to Enable Efficient Model-Based Reliability Analysis of NDT Systems. <i>Journal of Nondestructive Evaluation</i> , 2020, 39, 1.	1.1	5
17	Metamodeling-based parametric optimization of DBD plasma actuation to suppress flow separation over a wind turbine airfoil model. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2020, 36, 260-274.	1.5	8
18	Reduced-Cost Constrained Modeling of Microwave and Antenna Components: Recent Advances. <i>Lecture Notes in Computer Science</i> , 2020, , 40-56.	1.0	0

#	ARTICLE	IF	CITATIONS
19	Optimum aerodynamic shape design under uncertainty by utility theory and metamodeling. Aerospace Science and Technology, 2019, 95, 105464.	2.5	26
20	Multifidelity model-assisted probability of detection via Cokriging. NDT and E International, 2019, 108, 102156.	1.7	10
21	Reduced-Cost Design Optimization of High-Frequency Structures Using Adaptive Jacobian Updates. Lecture Notes in Computer Science, 2019, , 508-522.	1.0	0
22	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
23	Efficient uncertainty propagation for MAPOD via polynomial chaos-based Kriging. Engineering Computations, 2019, 37, 73-92.	0.7	5
24	Fast Yield Estimation of Multi-Band Patch Antennas by PC-Kriging. , 2019, , .		2
25	Aerodynamic inverse design using multifidelity models and manifold mapping. Aerospace Science and Technology, 2019, 85, 371-385.	2.5	26
26	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
27	Size reduction of ultra-wideband antennas with efficiency and matching constraints. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2018, 31, e2336.	1.2	0
28	Fast Uncertainty Propagation of Ultrasonic Testing Simulations for MAPOD and Sensitivity Analysis. , 2018, , .		0
29	Multifidelity Modeling of Ultrasonic Testing Simulations with Cokriging. , 2018, , .		0
30	Model-assisted probability of detection of flaws in aluminum blocks using polynomial chaos expansions. AIP Conference Proceedings, 2018, , .	0.3	1
31	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
32	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
33	Airfoil Design Under Uncertainty Using Non-Intrusive Polynomial Chaos Theory and Utility Functions. Procedia Computer Science, 2017, 108, 1493-1499.	1.2	4
34	Design strategies for multi-objective optimization of aerodynamic surfaces. Engineering Computations, 2017, 34, 1724-1753.	0.7	11
35	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
36	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

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37	Adaptive response prediction for aerodynamic shape optimization. Engineering Computations, 2017, 34, 1485-1500.	0.7	1
38	Surrogate modeling of ultrasonic simulations using data-driven methods. AIP Conference Proceedings, 2017, , .	0.3	2
39	Variable-fidelity CFD models and co-Kriging for expedited multi-objective aerodynamic design optimization. Engineering Computations, 2016, 33, 2320-2338.	0.7	14
40	Cost-efficient modeling of input characteristics of narrow-band antennas using response features. , 2016, , .		1
41	Expedited constrained multi-objective aerodynamic shape optimization by means of physics-based surrogates. Applied Mathematical Modelling, 2016, 40, 7204-7215.	2.2	11
42	Simulation-Driven Design by Knowledge-Based Response Correction Techniques. , 2016, , .		66
43	Supersonic Airfoil Shape Optimization by Variable-fidelity Models and Manifold Mapping. Procedia Computer Science, 2016, 80, 1103-1113.	1.2	9
44	Cost-efficient Microwave Design Optimization Using Adaptive Response Scaling. Procedia Computer Science, 2016, 80, 1042-1050.	1.2	0
45	Sequential Domain Patching for Computationally Feasible Multi-objective Optimization of Expensive Electromagnetic Simulation Models. Procedia Computer Science, 2016, 80, 1093-1102.	1.2	1
46	Expedited Dimension Scaling of Microwave and Antenna Structures Using Inverse Surrogates. Procedia Computer Science, 2016, 80, 1051-1060.	1.2	0
47	Surrogate Modeling of Ultrasonic Nondestructive Evaluation Simulations. Procedia Computer Science, 2016, 80, 1114-1124.	1.2	4
48	Expedited design of dual-band antennas using feature-based optimization. , 2016, , .		1
49	Trawl-door Shape Optimization by Space-mapping-corrected CFD Models and Kriging Surrogates. Procedia Computer Science, 2016, 80, 1061-1070.	1.2	3
50	Surrogate modelling and optimization using shape-preserving response prediction: A review. Engineering Optimization, 2016, 48, 476-496.	1.5	24
51	Multiobjective Aerodynamic Optimization by Variable-Fidelity Models and Response Surface Surrogates. AIAA Journal, 2016, 54, 531-541.	1.5	51
52	Rapid EM-Driven Antenna Dimension Scaling Through Inverse Modeling. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 714-717.	2.4	48
53	Introduction to Surrogate Modeling and Surrogate-Based Optimization. , 2016, , 31-61.		7
54	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

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55	Multi-Objective Design Optimization of Planar Yagi-Uda Antenna Using Physics-Based Surrogates and Rotational Design Space Reduction. <i>Procedia Computer Science</i> , 2015, 51, 885-894.	1.2	7
56	Shape Optimization of Trawl-doors Using Variable-fidelity Models and Space Mapping. <i>Procedia Computer Science</i> , 2015, 51, 905-913.	1.2	19
57	Multi-fidelity robust aerodynamic design optimization under mixed uncertainty. <i>Aerospace Science and Technology</i> , 2015, 45, 17-29.	2.5	56
58	Fast multi-objective design optimization of compact UWB matching transformers using variable-fidelity EM simulations and design space reduction. , 2015, , .		1
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. <i>Journal of Computational Science</i> , 2015, 11, 1-11.	1.5	3
61	Simulation-driven design of low-speed wind tunnel contraction. <i>Journal of Computational Science</i> , 2015, 7, 1-12.	1.5	11
62	Aerodynamic shape optimization by variable-fidelity computational fluid dynamics models: A review of recent progress. <i>Journal of Computational Science</i> , 2015, 10, 45-54.	1.5	40
63	Optimal shape design of multi-element trawl-doors using local surrogate models. <i>Journal of Computational Science</i> , 2015, 10, 55-62.	1.5	20
64	Fast Optimization of Integrated Photonic Components Using Response Correction and Local Approximation Surrogates. <i>Procedia Computer Science</i> , 2015, 51, 825-833.	1.2	48
65	Surrogate-based Airfoil Design with Space Mapping and Adjoint Sensitivity. <i>Procedia Computer Science</i> , 2015, 51, 795-804.	1.2	12
66	Inverse airfoil design using variable-resolution models and shape-preserving response prediction. <i>Aerospace Science and Technology</i> , 2014, 39, 513-522.	2.5	7
67	Nested Space Mapping Technology for Expedite EM-driven Design of Compact RF/Microwave Components. <i>Procedia Computer Science</i> , 2014, 29, 769-778.	1.2	1
68	Fast Low-fidelity Wing Aerodynamics Model for Surrogate-based Shape Optimization. <i>Procedia Computer Science</i> , 2014, 29, 811-820.	1.2	11
69	Low-cost EM-simulation-driven Multi-objective Optimization of Antennas. <i>Procedia Computer Science</i> , 2014, 29, 790-799.	1.2	3
70	Computational Optimization, Modelling and Simulation: Past, Present and Future. <i>Procedia Computer Science</i> , 2014, 29, 754-758.	1.2	13
71	Physics-based Surrogates for Low-cost Modeling of Microwave Structures. <i>Procedia Computer Science</i> , 2013, 18, 869-878.	1.2	4
72	Computational Optimization, Modelling and Simulation: Recent Trends and Challenges. <i>Procedia Computer Science</i> , 2013, 18, 855-860.	1.2	36

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73	Robust variable-fidelity optimization of microwave filters using co-Kriging and trust regions. Microwave and Optical Technology Letters, 2013, 55, 765-769.	0.9	16
74	Reliable reduced cost modeling and design optimization of microwave filters using co-Kriging. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2013, 26, 493-505.	1.2	11
75	Multi-level CFD-based Airfoil Shape Optimization With Automated Low-fidelity Model Selection. Procedia Computer Science, 2013, 18, 889-898.	1.2	23
76	Shape-Preserving Response Prediction for Engineering Design Optimization. Procedia Computer Science, 2013, 18, 879-888.	1.2	1
77	Surrogate-Based Aerodynamic Shape Optimization by Variable-Resolution Models. AIAA Journal, 2013, 51, 94-106.	1.5	81
78	Multipoint Response Correction for Reduced-Cost EM-Simulation-Driven Design of Antenna Structures. Microwave and Optical Technology Letters, 2013, 55, 2070-2074.	0.9	6
79	Reliable em-driven microwave design optimization using manifold mapping and adjoint sensitivity. Microwave and Optical Technology Letters, 2013, 55, 809-813.	0.9	34
80	Robust Airfoil Optimization Under Inherent and Model-Form Uncertainties Using Stochastic Expansions. , 2012, , .		12
81	Knowledge-Based Airfoil Shape Optimization Using Space Mapping. , 2012, , .		33
82	Adaptive Response Correction for Surrogate-Based Airfoil Shape Optimization. , 2012, , .		11
83	Low-Fidelity Model Mesh Density and the Performance of Variable-Resolution Shape Optimization Algorithms. Procedia Computer Science, 2012, 9, 842-851.	1.2	1
84	Numerical Optimization and Experimental Validation of a Low Speed Wind Tunnel Contraction. Procedia Computer Science, 2012, 9, 822-831.	1.2	2
85	Scaling Properties of Multi-Fidelity Shape Optimization Algorithms. Procedia Computer Science, 2012, 9, 832-841.	1.2	2
86	Computational Optimization, Modelling and Simulation: Smart Algorithms and Better Models. Procedia Computer Science, 2012, 9, 852-856.	1.2	4
87	Knowledge-Based Response Correction and Adaptive Design Specifications for Microwave Design Optimization. Procedia Computer Science, 2012, 9, 764-773.	1.2	1
88	Advances in simulation-driven optimization and modeling. Journal of Computational Methods in Sciences and Engineering, 2012, 12, 1-4.	0.1	3
89	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
90	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

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91	Variable-Fidelity Aerodynamic Shape Optimization. Studies in Computational Intelligence, 2011, , 179-210.	0.7	14
92	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
93	Computational optimization, modelling and simulation: Recent advances and overview. Procedia Computer Science, 2011, 4, 1230-1233.	1.2	0
94	Inverse Design of Transonic Airfoils Using Variable-Resolution Modeling and Pressure Distribution Alignment. Procedia Computer Science, 2011, 4, 1234-1243.	1.2	7
95	Surrogate-Based Methods. Studies in Computational Intelligence, 2011, , 33-59.	0.7	181
96	Multi-fidelity design optimization of transonic airfoils using shape-preserving response prediction. Procedia Computer Science, 2010, 1, 1311-1320.	1.2	8
97	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