

# Wei Chen

## List of Publications by Year in descending order

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215  
papers

18,059  
citations

26567

56  
h-index

13727

129  
g-index

216  
all docs

216  
docs citations

216  
times ranked

15391  
citing authors

#	ARTICLE	IF	CITATIONS
1	Scalable Gaussian Processes for Data-Driven Design Using Big Data With Categorical Factors. Journal of Mechanical Design, Transactions of the ASME, 2022, 144, .	1.7	6
2	Data-driven multiscale design of cellular composites with multiclass microstructures for natural frequency maximization. Composite Structures, 2022, 280, 114949.	3.1	16
3	Data-driven and topological design of structural metamaterials for fracture resistance. Extreme Mechanics Letters, 2022, 50, 101528.	2.0	22
4	A Weighted Statistical Network Modeling Approach to Product Competition Analysis. Complexity, 2022, 2022, 1-16.	0.9	3
5	Bayesian Calibration of Performance Degradation in a Gas Turbine-Driven Compressor Unit for Prognosis Health Management. Journal of Engineering for Gas Turbines and Power, 2022, 144, .	0.5	3
6	Data Centric Design: A New Approach to Design of Microstructural Material Systems. Engineering, 2022, 10, 89-98.	3.2	18
7	Mechanical cloak via data-driven aperiodic metamaterial design. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2122185119.	3.3	27
8	Dynamic Control of Plasmonic Localization by Inverse Optimization of Spatial Phase Modulation. ACS Photonics, 2022, 9, 351-359.	3.2	6
9	Remixing functionally graded structures: data-driven topology optimization with multiclass shape blending. Structural and Multidisciplinary Optimization, 2022, 65, .	1.7	6
10	Generalized de-homogenization via sawtooth-function-based mapping and its demonstration on data-driven frequency response optimization. Computer Methods in Applied Mechanics and Engineering, 2022, 395, 114967.	3.4	13
11	Designing active layer of organic solar cells using multi-fidelity molecular simulations and spectral density function. Computational Materials Science, 2022, 211, 111491.	1.4	4
12	IH-GAN: A conditional generative model for implicit surface-based inverse design of cellular structures. Computer Methods in Applied Mechanics and Engineering, 2022, 396, 115060.	3.4	22
13	Microstructure-guided deep material network for rapid nonlinear material modeling and uncertainty quantification. Computer Methods in Applied Mechanics and Engineering, 2022, 398, 115197.	3.4	12
14	Machine learned metaheuristic optimization of the bulk heterojunction morphology in P3HT:PCBM thin films. Computational Materials Science, 2021, 187, 110119.	1.4	7
15	Transfer Learned Designer Polymers For Organic Solar Cells. Journal of Chemical Information and Modeling, 2021, 61, 134-142.	2.5	22
16	Stochastic nonlinear analysis of unidirectional fiber composites using image-based microstructural uncertainty quantification. Composite Structures, 2021, 260, 113470.	3.1	13
17	Modeling Multi-Year Customersâ€™ Considerations and Choices in Chinaâ€™s Auto Market Using Two-Stage Bipartite Network Analysis. Networks and Spatial Economics, 2021, 21, 365-385.	0.7	4
18	Latent variable Gaussian process models: A rank-based analysis and an alternative approach. International Journal for Numerical Methods in Engineering, 2021, 122, 4007-4026.	1.5	0

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19	Multi-Model Bayesian Optimization for Simulation-Based Design. Journal of Mechanical Design, Transactions of the ASME, 2021, 143, .	1.7	8
20	Nonstationarity Analysis of Materials Microstructures via Fisher Score Vectors. Acta Materialia, 2021, 211, 116818.	3.8	1
21	Data-Driven Topology Optimization With Multiclass Microstructures Using Latent Variable Gaussian Process. Journal of Mechanical Design, Transactions of the ASME, 2021, 143, .	1.7	35
22	METASET: Exploring Shape and Property Spaces for Data-Driven Metamaterials Design. Journal of Mechanical Design, Transactions of the ASME, 2021, 143, .	1.7	20
23	Scalable Adaptive Batch Sampling in Simulation-Based Design With Heteroscedastic Noise. Journal of Mechanical Design, Transactions of the ASME, 2021, 143, .	1.7	7
24	Systematic coarse-graining of epoxy resins with machine learning-informed energy renormalization. Npj Computational Materials, 2021, 7, .	3.5	22
25	Data-Driven Multiscale Science for Tire Compounding: Methods and Future Directions. Springer Series in Materials Science, 2021, , 281-312.	0.4	1
26	A Graph Neural Network Approach for Product Relationship Prediction. , 2021, , .		4
27	Direct Observations of Uniform Bulk Heterojunctions and the Energy Level Alignments in Nonfullerene Organic Photovoltaic Active Layers. ACS Applied Materials & Interfaces, 2021, 13, 56430-56437.	4.0	0
28	A Latent Variable Approach to Gaussian Process Modeling with Qualitative and Quantitative Factors. Technometrics, 2020, 62, 291-302.	1.3	63
29	Elongated Nanodomains and Molecular Intermixing Induced Doping in Organic Photovoltaic Active Layers with Electric Field Treatment. ACS Applied Polymer Materials, 2020, 2, 335-341.	2.0	3
30	Deep generative modeling for mechanistic-based learning and design of metamaterial systems. Computer Methods in Applied Mechanics and Engineering, 2020, 372, 113377.	3.4	117
31	Polymer Nanocomposite Data: Curation, Frameworks, Access, and Potential for Discovery and Design. ACS Macro Letters, 2020, 9, 1086-1094.	2.3	24
32	Data centric nanocomposites design <i>via</i> mixed-variable Bayesian optimization. Molecular Systems Design and Engineering, 2020, 5, 1376-1390.	1.7	15
33	Investigating the effect of surface modification on the dispersion process of polymer nanocomposites. Nanocomposites, 2020, 6, 111-124.	2.2	15
34	Featureless adaptive optimization accelerates functional electronic materials design. Applied Physics Reviews, 2020, 7, .	5.5	26
35	Elasto-morphology of P3HT:PCBM bulk heterojunction organic solar cells. Soft Matter, 2020, 16, 6743-6751.	1.2	14
36	Bayesian Optimization for Materials Design with Mixed Quantitative and Qualitative Variables. Scientific Reports, 2020, 10, 4924.	1.6	88

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37	Impact of interfacial properties on the viscoelastic relaxation of hard-soft block copolymers using finite element analysis. <i>Journal of Materials Research</i> , 2020, 35, 1857-1873.	1.2	1
38	A mode tracking method in modal metamodeling for structures with clustered eigenvalues. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2020, 369, 113174.	3.4	7
39	Maximizing Solar Energy Utilization through Multicriteria Pareto Optimization of Energy Harvesting and Regulating Smart Windows. <i>Cell Reports Physical Science</i> , 2020, 1, 100108.	2.8	9
40	Data-driven metamaterial design with Laplace-Beltrami spectrum as shape-DNA. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 2613-2628.	1.7	25
41	Machine-Learning-Assisted De Novo Design of Organic Molecules and Polymers: Opportunities and Challenges. <i>Polymers</i> , 2020, 12, 163.	2.0	95
42	Designing anisotropic microstructures with spectral density function. <i>Computational Materials Science</i> , 2020, 179, 109559.	1.4	20
43	Mining structure-property relationships in polymer nanocomposites using data driven finite element analysis and multi-task convolutional neural networks. <i>Molecular Systems Design and Engineering</i> , 2020, 5, 962-975.	1.7	33
44	Multiscale simulation of fiber composites with spatially varying uncertainties. , 2020, , 355-384.		3
45	Integration of Normative Decision-Making and Batch Sampling for Global Metamodeling. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2020, 142, .	1.7	6
46	Materials Informatics and Data System for Polymer Nanocomposites Analysis and Design. , 2020, , 65-125.		2
47	Data-Driven Multiscale Topology Optimization Using Multi-Response Latent Variable Gaussian Process. , 2020, , .		2
48	Input Mapping for Model Calibration with Application to Wing Aerodynamics. <i>AIAA Journal</i> , 2019, 57, 2734-2745.	1.5	17
49	Globally Approximate Gaussian Processes for Big Data With Application to Data-Driven Metamaterials Design. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2019, 141, .	1.7	42
50	Effect of polydispersity on the bulk heterojunction morphology of P3HT:PCBM solar cells. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2019, 57, 895-903.	2.4	20
51	Stochastic Constitutive Model of Isotropic Thin Fiber Networks Based on Stochastic Volume Elements. <i>Materials</i> , 2019, 12, 538.	1.3	26
52	Solution Processing Dependent Bulk Heterojunction Nanomorphology of P3HT/PCBM Thin Films. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 17056-17067.	4.0	25
53	Uncertainty propagation of frequency response functions using a multi-output Gaussian Process model. <i>Computers and Structures</i> , 2019, 217, 1-17.	2.4	28
54	Rethinking interphase representations for modeling viscoelastic properties for polymer nanocomposites. <i>Materialia</i> , 2019, 6, 100277.	1.3	9

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55	A numerical Bayesian-calibrated characterization method for multiscale prepreg preforming simulations with tension-shear coupling. <i>Composites Science and Technology</i> , 2019, 170, 15-24.	3.8	36
56	Robust topology optimization of multi-material lattice structures under material and load uncertainties. <i>Frontiers of Mechanical Engineering</i> , 2019, 14, 141-152.	2.5	33
57	Connected morphable components-based multiscale topology optimization. <i>Frontiers of Mechanical Engineering</i> , 2019, 14, 129-140.	2.5	27
58	Data-Centric Mixed-Variable Bayesian Optimization for Materials Design. , 2019, , .		12
59	Data-Driven Dynamic Network Modeling for Analyzing the Evolution of Product Competitions. , 2019, , .		1
60	Computational analysis of particle reinforced viscoelastic polymer nanocomposites – statistical study of representative volume element. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 114, 55-74.	2.3	24
61	Computational microstructure characterization and reconstruction: Review of the state-of-the-art techniques. <i>Progress in Materials Science</i> , 2018, 95, 1-41.	16.0	252
62	Leveraging the nugget parameter for efficient Gaussian process modeling. <i>International Journal for Numerical Methods in Engineering</i> , 2018, 114, 501-516.	1.5	48
63	Robust Multi-material Topology Optimization for Lattice Structure Under Material Uncertainties. , 2018, , 1110-1123.		2
64	Multiscale finite element modeling of sheet molding compound (SMC) composite structure based on stochastic mesostructure reconstruction. <i>Composite Structures</i> , 2018, 188, 25-38.	3.1	47
65	Identifying interphase properties in polymer nanocomposites using adaptive optimization. <i>Composites Science and Technology</i> , 2018, 162, 146-155.	3.8	43
66	Uncertainty quantification in multiscale simulation of woven fiber composites. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2018, 338, 506-532.	3.4	90
67	NanoMine schema: An extensible data representation for polymer nanocomposites. <i>APL Materials</i> , 2018, 6, .	2.2	35
68	Modeling Spatiotemporal Heterogeneity of Customer Preferences in Engineering Design. , 2018, , .		8
69	A Spectral Density Function Approach for Design of Organic Photovoltaic Cells. , 2018, , .		5
70	A Deep Adversarial Learning Methodology for Designing Microstructural Material Systems. , 2018, , .		27
71	A Transfer Learning Approach for Microstructure Reconstruction and Structure-property Predictions. <i>Scientific Reports</i> , 2018, 8, 13461.	1.6	113
72	Microstructural Materials Design Via Deep Adversarial Learning Methodology. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2018, 140, .	1.7	142

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73	Composition and processing dependent miscibility of P3HT and PCBM in organic solar cells by coarse-grained molecular simulations. <i>Computational Materials Science</i> , 2018, 155, 112-115.	1.4	21
74	A Network-Based Approach to Modeling and Predicting Product Coconsideration Relations. <i>Complexity</i> , 2018, 2018, 1-14.	0.9	17
75	Materials by Design for Stiff and Tough Hairy Nanoparticle Assemblies. <i>ACS Nano</i> , 2018, 12, 7946-7958.	7.3	45
76	Stochastic reconstruction and microstructure modeling of SMC chopped fiber composites. <i>Composite Structures</i> , 2018, 200, 153-164.	3.1	21
77	Reliability-based design optimization of composite battery box based on modified particle swarm optimization algorithm. <i>Composite Structures</i> , 2018, 204, 239-255.	3.1	35
78	Enhanced Collaborative Optimization Using Alternating Direction Method of Multipliers. <i>Structural and Multidisciplinary Optimization</i> , 2018, 58, 1571-1588.	1.7	10
79	Predicting product co-consideration and market competitions for technology-driven product design: a network-based approach. <i>Design Science</i> , 2018, 4, .	1.1	18
80	A Spectral Density Function Approach for Active Layer Design of Organic Photovoltaic Cells. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2018, 140, .	1.7	20
81	Concurrent topology optimization of multiscale structures with multiple porous materials under random field loading uncertainty. <i>Structural and Multidisciplinary Optimization</i> , 2017, 56, 1-19.	1.7	100
82	Characterization and Design of Functional Quasi-Random Nanostructured Materials Using Spectral Density Function. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2017, 139, .	1.7	36
83	Multi-scale design of three dimensional woven composite automobile fender using modified particle swarm optimization algorithm. <i>Composite Structures</i> , 2017, 181, 73-83.	3.1	44
84	Design of Non-Deterministic Quasi-random Nanophotonic Structures Using Fourier Space Representations. <i>Scientific Reports</i> , 2017, 7, 3752.	1.6	24
85	Predicting the breakdown strength and lifetime of nanocomposites using a multi-scale modeling approach. <i>Journal of Applied Physics</i> , 2017, 122, 065101.	1.1	18
86	Characterization of the Optical Properties of Turbid Media by Supervised Learning of Scattering Patterns. <i>Scientific Reports</i> , 2017, 7, 15259.	1.6	17
87	Enhanced Gaussian Process Metamodeling and Collaborative Optimization for Vehicle Suspension Design Optimization. , 2017, , .		11
88	Two-Stage Modeling of Customer Choice Preferences in Engineering Design Using Bipartite Network Analysis. , 2017, , .		12
89	Confidence-based adaptive extreme response surface for time-variant reliability analysis under random excitation. <i>Structural Safety</i> , 2017, 64, 76-86.	2.8	85
90	Stability-ensured topology optimization of boom structures with volume and stress considerations. <i>Structural and Multidisciplinary Optimization</i> , 2017, 55, 493-512.	1.7	6

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91	Multimodel Fusion Based Sequential Optimization. AIAA Journal, 2017, 55, 241-254.	1.5	33
92	A modified particle swarm optimisation algorithm and its application in vehicle lightweight design. International Journal of Vehicle Design, 2017, 73, 116.	0.1	4
93	Analyzing Customer Preference to Product Optional Features in Supporting Product Configuration. SAE International Journal of Materials and Manufacturing, 2017, 10, 320-332.	0.3	11
94	Multi-response Approach to Improving Identifiability in Model Calibration. , 2017, , 69-127.		1
95	Nonhierarchical multi-model fusion using spatial random processes. International Journal for Numerical Methods in Engineering, 2016, 106, 503-526.	1.5	26
96	An integrated computational materials engineering method for woven carbon fiber composites preforming process. AIP Conference Proceedings, 2016, , .	0.3	4
97	Reduction of Epistemic Model Uncertainty in Simulation-Based Multidisciplinary Design. Journal of Mechanical Design, Transactions of the ASME, 2016, 138, .	1.7	18
98	Perspective: NanoMine: A material genome approach for polymer nanocomposites analysis and design. APL Materials, 2016, 4, .	2.2	49
99	Forecasting Technological Impacts on Customers'™ Co-Consideration Behaviors: A Data-Driven Network Analysis Approach. , 2016, , .		10
100	Modeling customer preferences using multidimensional network analysis in engineering design. Design Science, 2016, 2, .	1.1	28
101	Time-variant reliability assessment through equivalent stochastic process transformation. Reliability Engineering and System Safety, 2016, 152, 166-175.	5.1	101
102	Multidisciplinary Statistical Sensitivity Analysis Considering Both Aleatory and Epistemic Uncertainties. AIAA Journal, 2016, 54, 1326-1338.	1.5	28
103	Integrating Bayesian Calibration, Bias Correction, and Machine Learning for the 2014 Sandia Verification and Validation Challenge Problem. Journal of Verification, Validation and Uncertainty Quantification, 2016, 1, .	0.3	31
104	New Metrics for Validation of Data-Driven Random Process Models in Uncertainty Quantification. Journal of Verification, Validation and Uncertainty Quantification, 2016, 1, .	0.3	9
105	Toward the development of a quantitative tool for predicting dispersion of nanocomposites under non-equilibrium processing conditions. Journal of Materials Science, 2016, 51, 4238-4249.	1.7	47
106	Design for structural flexibility using connected morphable components based topology optimization. Science China Technological Sciences, 2016, 59, 839-851.	2.0	34
107	Stochastic microstructure characterization and reconstruction via supervised learning. Acta Materialia, 2016, 103, 89-102.	3.8	166
108	A preposterior analysis to predict identifiability in the experimental calibration of computer models. IIE Transactions, 2016, 48, 75-88.	2.1	28

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109	Multi-response Approach to Improving Identifiability in Model Calibration. , 2015, , 1-59.		0
110	A Multidimensional Network Approach for Modeling Customer-Product Relations in Engineering Design. , 2015, , .		5
111	Microstructure reconstruction and structural equation modeling for computational design of nanodielectrics. Integrating Materials and Manufacturing Innovation, 2015, 4, 209-234.	1.2	26
112	A Modified Particle Swarm Optimization Algorithm with Design of Experiment Technique and a Perturbation Process. , 2015, , .		0
113	SURROGATE PREPOSTERIOR ANALYSES FOR PREDICTING AND ENHANCING IDENTIFIABILITY IN MODEL CALIBRATION. , 2015, 5, 341-359.		9
114	A Spatial-Random-Process Based Multidisciplinary System Uncertainty Propagation Approach With Model Uncertainty. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	1.7	21
115	A Data-Driven Network Analysis Approach to Predicting Customer Choice Sets for Choice Modeling in Engineering Design. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	1.7	33
116	A Machine Learning-Based Design Representation Method for Designing Heterogeneous Microstructures. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	1.7	98
117	Topology optimization and fabrication of low frequency vibration energy harvesting microdevices. Smart Materials and Structures, 2015, 24, 025005.	1.8	19
118	Improved particle swarm optimization algorithm using design of experiment and data mining techniques. Structural and Multidisciplinary Optimization, 2015, 52, 813-826.	1.7	24
119	A numerical study of the overall stability of flexible giant crane booms. Journal of Constructional Steel Research, 2015, 105, 12-27.	1.7	14
120	A System Uncertainty Propagation Approach With Model Uncertainty Quantification in Multidisciplinary Design. , 2014, , .		11
121	A Descriptor-Based Design Methodology for Developing Heterogeneous Microstructural Materials System. Journal of Mechanical Design, Transactions of the ASME, 2014, 136, 051007.	1.7	108
122	Descriptor-based methodology for statistical characterization and 3D reconstruction of microstructural materials. Computational Materials Science, 2014, 85, 206-216.	1.4	137
123	Quantifying uncertainties in the microvascular transport of nanoparticles. Biomechanics and Modeling in Mechanobiology, 2014, 13, 515-526.	1.4	23
124	The archetype-genome exemplar in molecular dynamics and continuum mechanics. Computational Mechanics, 2014, 53, 687-737.	2.2	16
125	Incorporating social impact on new product adoption in choice modeling: A case study in green vehicles. Transportation Research, Part D: Transport and Environment, 2014, 32, 421-434.	3.2	67
126	Topology optimization for light-trapping structure in solar cells. Structural and Multidisciplinary Optimization, 2014, 50, 367-382.	1.7	11



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127	New validation metrics for models with multiple correlated responses. Reliability Engineering and System Safety, 2014, 127, 1-11.	5.1	50
128	A Machine Learning-Based Design Representation Method for Designing Heterogeneous Microstructures. , 2014, , .		4
129	Commentary: The Materials Project: A materials genome approach to accelerating materials innovation. APL Materials, 2013, 1, .	2.2	6,913
130	Efficient 3D porous microstructure reconstruction via Gaussian random field and hybrid optimization. Journal of Microscopy, 2013, 252, 135-148.	0.8	66
131	Concurrent treatment of parametric uncertainty and metamodeling uncertainty in robust design. Structural and Multidisciplinary Optimization, 2013, 47, 63-76.	1.7	64
132	A generalized uncertainty propagation criterion from benchmark studies of microstructured material systems. Computer Methods in Applied Mechanics and Engineering, 2013, 254, 271-291.	3.4	22
133	Computational microstructure characterization and reconstruction for stochastic multiscale material design. CAD Computer Aided Design, 2013, 45, 65-76.	1.4	118
134	Descriptor-Based Methodology for Designing Heterogeneous Microstructural Materials System. , 2013, , .		6
135	Objective-Oriented Sequential Sampling for Simulation Based Robust Design Considering Multiple Sources of Uncertainty. Journal of Mechanical Design, Transactions of the ASME, 2013, 135, .	1.7	31
136	Stochastic Reassembly Strategy for Managing Information Complexity in Heterogeneous Materials Analysis and Design. Journal of Mechanical Design, Transactions of the ASME, 2013, 135, .	1.7	26
137	Decision-Based Design. , 2013, , .		59
138	Highly Efficient Light-Trapping Structure Design Inspired By Natural Evolution. Scientific Reports, 2013, 3, 1025.	1.6	83
139	A Decision-Based Design Approach to Product Family Design. , 2013, , 287-317.		2
140	A Choice Modeling Approach for Usage Context-Based Design. , 2013, , 255-285.		5
141	Fundamentals of Analytical Techniques for Modeling Consumer Preferences and Choices. , 2013, , 35-77.		3
142	Data Analysis Techniques to Support Demand Model Estimation. , 2013, , 163-202.		0
143	Quantification of Model Uncertainty: Calibration, Model Discrepancy, and Identifiability. Journal of Mechanical Design, Transactions of the ASME, 2012, 134, .	1.7	218
144	Choice Modeling for Usage Context-Based Design. Journal of Mechanical Design, Transactions of the ASME, 2012, 134, .	1.7	46

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145	Improving Identifiability in Model Calibration Using Multiple Responses. Journal of Mechanical Design, Transactions of the ASME, 2012, 134, .	1.7	94
146	Incorporating Social Impact on New Product Adoption in Choice Modeling: A Case Study in Green Vehicles. , 2012, , .		3
147	Utilizing real and statistically reconstructed microstructures for the viscoelastic modeling of polymer nanocomposites. Composites Science and Technology, 2012, 72, 1725-1732.	3.8	40
148	A Hybrid Approach to 3D Porous Microstructure Reconstruction via Gaussian Random Field. , 2012, , .		9
149	Impact of vehicle usage on consumer choice of hybrid electric vehicles. Transportation Research, Part D: Transport and Environment, 2012, 17, 208-214.	3.2	54
150	Understanding and modelling heterogeneity of human preferences for engineering design. Journal of Engineering Design, 2011, 22, 583-601.	1.1	25
151	Weighted stochastic response surface method considering sample weights. Structural and Multidisciplinary Optimization, 2011, 43, 837-849.	1.7	35
152	A new level-set based approach to shape and topology optimization under geometric uncertainty. Structural and Multidisciplinary Optimization, 2011, 44, 1-18.	1.7	115
153	Computational uncertainty analysis in multiresolution materials via stochastic constitutive theory. Computer Methods in Applied Mechanics and Engineering, 2011, 200, 309-325.	3.4	61
154	Examination of customer satisfaction surveys in choice modelling to support engineering design. Journal of Engineering Design, 2011, 22, 669-687.	1.1	11
155	Microstructure Reconstruction for Stochastic Multiscale Material Design. , 2011, , .		5
156	Toward a Better Understanding of Model Validation Metrics. Journal of Mechanical Design, Transactions of the ASME, 2011, 133, .	1.7	128
157	Integrated Bayesian Hierarchical Choice Modeling to Capture Heterogeneous Consumer Preferences in Engineering Design. Journal of Mechanical Design, Transactions of the ASME, 2010, 132, .	1.7	31
158	A Hierarchical Statistical Sensitivity Analysis Method for Multilevel Systems With Shared Variables. Journal of Mechanical Design, Transactions of the ASME, 2010, 132, .	1.7	20
159	A Multiscale Design Methodology for Hierarchical Systems With Random Field Uncertainty. Journal of Mechanical Design, Transactions of the ASME, 2010, 132, .	1.7	22
160	Updating Predictive Models: Calibration, Bias Correction and Identifiability. , 2010, , .		5
161	Towards A Better Understanding of Model Validation Metrics. , 2010, , .		5
162	A new sparse grid based method for uncertainty propagation. Structural and Multidisciplinary Optimization, 2010, 41, 335-349.	1.7	103

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163	Level set based robust shape and topology optimization under random field uncertainties. Structural and Multidisciplinary Optimization, 2010, 41, 507-524.	1.7	206
164	A level set approach for optimal design of smart energy harvesters. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 2532-2543.	3.4	77
165	A New Weighted Stochastic Response Surface Method for Uncertainty Propagation. , 2010, , .		3
166	Enhanced probabilistic analytical target cascading with application to multi-scale design. Engineering Optimization, 2010, 42, 581-592.	1.5	26
167	A new sparse grid based method for uncertainty propagation. , 2010, 41, 335.		1
168	Level Set Based Robust Shape and Topology Optimization Under Random Field Uncertainties. , 2009, , .		3
169	Multiresponse and Multistage Metamodeling Approach for Design Optimization. AIAA Journal, 2009, 47, 206-218.	1.5	21
170	Efficient Random Field Uncertainty Propagation in Design Using Multiscale Analysis. Journal of Mechanical Design, Transactions of the ASME, 2009, 131, .	1.7	61
171	A Multiscale Design Methodology for Designing Hierarchical Multiscale Systems Considering Random Field Uncertainty. , 2009, , .		1
172	Optimizing Latin hypercube design for sequential sampling of computer experiments. Engineering Optimization, 2009, 41, 793-810.	1.5	60
173	Product Attribute Function Deployment (PAFD) for Decision-Based Conceptual Design. IEEE Transactions on Engineering Management, 2009, 56, 271-284.	2.4	36
174	Complexity science of multiscale materials via stochastic computations. International Journal for Numerical Methods in Engineering, 2009, 80, 932-978.	1.5	45
175	A comparative study of uncertainty propagation methods for black-box-type problems. Structural and Multidisciplinary Optimization, 2009, 37, 239-253.	1.7	245
176	Robust design with arbitrary distributions using Gauss-type quadrature formula. Structural and Multidisciplinary Optimization, 2009, 39, 227-243.	1.7	73
177	A better understanding of model updating strategies in validating engineering models. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 1327-1337.	3.4	126
178	A market-driven approach to product family design. International Journal of Production Research, 2009, 47, 71-104.	4.9	143
179	Bayesian Validation of Computer Models. Technometrics, 2009, 51, 439-451.	1.3	100
180	A hierarchical choice modelling approach for incorporating customer preferences in vehicle package design. International Journal of Product Development, 2009, 8, 228.	0.2	36

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181	Optimal Experimental Design of Human Appraisals for Modeling Consumer Preferences in Engineering Design. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2009, 131, .	1.7	30
182	A New Sparse Grid Based Method for Uncertainty Propagation. , 2009, , .		9
183	Special issue on design optimizationâ€™ industrial applications. <i>Structural and Multidisciplinary Optimization</i> , 2008, 35, 507-507.	1.7	0
184	Statistical volume element method for predicting microstructureâ€™ constitutive property relations. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2008, 197, 3516-3529.	3.4	112
185	A Level-Set-Based Multistage Metamodeling Approach for Design Optimization. , 2008, , .		0
186	Determination of ranged sets of design specifications by incorporating design-space heterogeneity. <i>Engineering Optimization</i> , 2008, 40, 1011-1029.	1.5	11
187	A Multiscale Design Approach With Random Field Representation of Material Uncertainty. , 2008, , .		4
188	A Design-Driven Validation Approach Using Bayesian Prediction Models. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2008, 130, .	1.7	91
189	A Hierarchical Statistical Sensitivity Analysis Method for Complex Engineering Systems Design. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2008, 130, .	1.7	18
190	A New Variable-Fidelity Optimization Framework Based on Model Fusion and Objective-Oriented Sequential Sampling. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2008, 130, .	1.7	73
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