

# Kai Cheng

## List of Publications by Year in descending order

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Version: 2024-02-01

28  
papers

906  
citations

643344

15  
h-index

563245

28  
g-index

28  
all docs

28  
docs citations

28  
times ranked

563  
citing authors

#	ARTICLE	IF	CITATIONS
1	Estimation of small failure probability using generalized subset simulation. <i>Mechanical Systems and Signal Processing</i> , 2022, 163, 108114.	4.4	21
2	Adaboost-based ensemble of polynomial chaos expansion with adaptive sampling. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2022, 388, 114238.	3.4	10
3	Adaptive Bayesian support vector regression model for structural reliability analysis. <i>Reliability Engineering and System Safety</i> , 2021, 206, 107286.	5.1	60
4	Resampling method for reliability-based design optimization based on thermodynamic integration and parallel tempering. <i>Mechanical Systems and Signal Processing</i> , 2021, 156, 107630.	4.4	3
5	AK-DS: An adaptive Kriging-based directional sampling method for reliability analysis. <i>Mechanical Systems and Signal Processing</i> , 2021, 156, 107610.	4.4	52
6	Bayesian optimum accelerated life test plans based on quantile regression. <i>Communications in Statistics Part B: Simulation and Computation</i> , 2020, 49, 2402-2418.	0.6	2
7	Hierarchical surrogate model with dimensionality reduction technique for high-dimensional uncertainty propagation. <i>International Journal for Numerical Methods in Engineering</i> , 2020, 121, 2068-2085.	1.5	5
8	Structural reliability analysis based on ensemble learning of surrogate models. <i>Structural Safety</i> , 2020, 83, 101905.	2.8	75
9	Global sensitivity analysis for multivariate output model and dynamic models. <i>Reliability Engineering and System Safety</i> , 2020, 204, 107195.	5.1	8
10	Active learning polynomial chaos expansion for reliability analysis by maximizing expected indicator function prediction error. <i>International Journal for Numerical Methods in Engineering</i> , 2020, 121, 3159-3177.	1.5	12
11	A novel reliability sensitivity analysis method based on directional sampling and Monte Carlo simulation. <i>Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability</i> , 2020, 234, 622-635.	0.6	8
12	Surrogate-assisted global sensitivity analysis: an overview. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 1187-1213.	1.7	70
13	A Bayesian Monte Carlo-based method for efficient computation of global sensitivity indices. <i>Mechanical Systems and Signal Processing</i> , 2019, 117, 498-516.	4.4	54
14	Gradient-enhanced high dimensional model representation via Bayesian inference. <i>Knowledge-Based Systems</i> , 2019, 184, 104903.	4.0	3
15	An efficient and robust adaptive sampling method for polynomial chaos expansion in sparse Bayesian learning framework. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 352, 654-674.	3.4	21
16	A new surrogate modeling method combining polynomial chaos expansion and Gaussian kernel in a sparse Bayesian learning framework. <i>International Journal for Numerical Methods in Engineering</i> , 2019, 120, 498-516.	1.5	7
17	An efficient method for estimating global reliability sensitivity indices. <i>Probabilistic Engineering Mechanics</i> , 2019, 56, 35-49.	1.3	12
18	Time-variant reliability analysis based on high dimensional model representation. <i>Reliability Engineering and System Safety</i> , 2019, 188, 310-319.	5.1	20

#	ARTICLE	IF	CITATIONS
19	An expanded sparse Bayesian learning method for polynomial chaos expansion. <i>Mechanical Systems and Signal Processing</i> , 2019, 128, 153-171.	4.4	16
20	Multi-level multi-fidelity sparse polynomial chaos expansion based on Gaussian process regression. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2019, 349, 360-377.	3.4	30
21	Sparse polynomial chaos expansions for global sensitivity analysis with partial least squares and distance correlation. <i>Structural and Multidisciplinary Optimization</i> , 2019, 59, 229-247.	1.7	9
22	Multivariate output global sensitivity analysis using multi-output support vector regression. <i>Structural and Multidisciplinary Optimization</i> , 2019, 59, 2177-2187.	1.7	20
23	Adaptive sparse polynomial chaos expansions for global sensitivity analysis based on support vector regression. <i>Computers and Structures</i> , 2018, 194, 86-96.	2.4	105
24	Sparse polynomial chaos expansion based on D-MORPH regression. <i>Applied Mathematics and Computation</i> , 2018, 323, 17-30.	1.4	50
25	Temporal and spatial multi-parameter dynamic reliability and global reliability sensitivity analysis based on the extreme value moments. <i>Structural and Multidisciplinary Optimization</i> , 2017, 56, 117-129.	1.7	66
26	Mixed kernel function support vector regression for global sensitivity analysis. <i>Mechanical Systems and Signal Processing</i> , 2017, 96, 201-214.	4.4	88
27	Global sensitivity analysis using support vector regression. <i>Applied Mathematical Modelling</i> , 2017, 49, 587-598.	2.2	78
28	The Bayesian quantile regression method in accelerated life tests. <i>Communications in Statistics Case Studies Data Analysis and Applications</i> , 2016, 2, 34-43.	0.3	1