Xiaoliang Wan

List of Publications by Year
in descending order

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		567281	414414
34	1,864	15	32
papers	citations	h-index	g-index

34	34	34	1380
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	An adaptive multi-element generalized polynomial chaos method for stochastic differential equations. Journal of Computational Physics, 2005, 209, 617-642.	3.8	474
2	Multi-Element Generalized Polynomial Chaos for Arbitrary Probability Measures. SIAM Journal of Scientific Computing, 2006, 28, 901-928.	2.8	381
3	The multi-element probabilistic collocation method (ME-PCM): Error analysis and applications. Journal of Computational Physics, 2008, 227, 9572-9595.	3.8	191
4	Stochastic Computational Fluid Mechanics. Computing in Science and Engineering, 2007, 9, 21-29.	1.2	155
5	Long-term behavior of polynomial chaos in stochastic flow simulations. Computer Methods in Applied Mechanics and Engineering, 2006, 195, 5582-5596.	6.6	134
6	Beyond Wienerâ€“Askey Expansions: Handling Arbitrary PDFs. Journal of Scientific Computing, 2006, 27, 455-464.	2.3	109
7	Stochastic bifurcation analysis of Rayleighâ€“BÃ©nard convection. Journal of Fluid Mechanics, 2010, 650, 391-413.	3.4	51
8	Stochastic low-dimensional modelling of a random laminar wake past a circular cylinder. Journal of Fluid Mechanics, 2008, 606, 339-367.	3.4	47
9	Stochastic Solutions for the Two-Dimensional Advection-Diffusion Equation. SIAM Journal of Scientific Computing, 2004, 26, 578-590.	2.8	35
10	Solving elliptic problems with non-Gaussian spatially-dependent random coefficients. Computer Methods in Applied Mechanics and Engineering, 2009, 198, 1985-1995.	6.6	33
11	Horizontal Dispersion of Buoyant Materials in the Ocean Surface Boundary Layer. Journal of Physical Oceanography, 2018, 48, 2103-2125.	1.7	30
12	A stochastic modeling methodology based on weighted Wiener chaos and Malliavin calculus. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 14189-14194.	7.1	26
13	An adaptive high-order minimum action method. Journal of Computational Physics, 2011, 230, 8669-8682.	3.8	20
14	Effect of Uncertainty in Blowing Ratio on Film Cooling Effectiveness. Journal of Heat Transfer, 2014, 136, .	2.1	19
15	Adaptive multi-element polynomial chaos with discrete measure: Algorithms and application to SPDEs. Applied Numerical Mathematics, 2015, 90, 91-110.	2.1	18
16	A sharp error estimate for the fast Gauss transform. Journal of Computational Physics, 2006, 219, 7-12.	3.8	14
17	A dynamic-solverâ€“consistent minimum action method: With an application to 2D Navierâ€“Stokes equations. Journal of Computational Physics, 2017, 331, 209-226.	3.8	13
18	Adaptive deep density approximation for Fokker-Planck equations. Journal of Computational Physics, 2022, 457, 111080.	3.8	13

#	Article	IF	Citations
19	Elliptic equations of higher stochastic order. ESAIM: Mathematical Modelling and Numerical Analysis, 2010, 44, 1135-1153.	1.9	12
20	Hybrid parallel computing of minimum action method. Parallel Computing, 2013, 39, 638-651.	2.1	12
21	Deep density estimation via invertible block-triangular mapping. Theoretical and Applied Mechanics Letters, 2020, 10, 143-148.	2.8	10
22	A note on stochastic elliptic models. Computer Methods in Applied Mechanics and Engineering, 2010, 199, 2987-2995.	6.6	9
23	Model the nonlinear instability of wall-bounded shear flows as a rare event: a study on two-dimensional Poiseuille flow. Nonlinearity, 2015, 28, 1409-1440.	1.4	9
24	Convergence Analysis of a Finite Element Approximation of Minimum Action Methods. SIAM Journal on Numerical Analysis, 2018, 56, 1597-1620.	2.3	9
25	A minimum action method for small random perturbations of two-dimensional parallel shear flows. Journal of Computational Physics, 2013, 235, 497-514.	3.8	8
26	A Minimum Action Method with Optimal Linear Time Scaling. Communications in Computational Physics, 2015, 18, 1352-1379.	1.7	7
27	The Wick–Malliavin Approximation of Elliptic Problems with Log-Normal Random Coefficients. SIAM Journal of Scientific Computing, 2013, 35, A2370-A2392.	2.8	6
28	Coupling the reduced-order model and the generative model for an importance sampling estimator. Journal of Computational Physics, 2020, 408, 109281.	3.8	6
29	Exploring the use of machine learning to parameterize vertical mixing in the ocean surface boundary layer. Ocean Modelling, 2022, 176, 102059.	2.4	5
30	A Discussion on Two Stochastic Elliptic Modeling Strategies. Communications in Computational Physics, 2012, 11, 775-796.	1.7	3
31	An Hp-Adaptive Minimum Action Method Based on a Posteriori Error Estimate. Communications in Computational Physics, 2018, 23, .	1.7	3
32	A Minimum Action Method for Dynamical Systems with Constant Time Delays. SIAM Journal of Scientific Computing, 2021, 43, A541-A565.	2.8	2
33	Asymptotically Efficient Simulation of Elliptic Problems with Small Random Forcing. SIAM Journal of Scientific Computing, 2018, 40, A548-A572.	2.8	0
34	NUMERICAL APPROXIMATION OF ELLIPTIC PROBLEMS WITH LOG-NORMAL RANDOM COEFFICIENTS. , 2019, 9, 161-186.		0