

Clayton G Webster

List of Publications by Year in descending order

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Version: 2024-02-01

46
papers

2,159
citations

623574

14
h-index

395590

33
g-index

50
all docs

50
docs citations

50
times ranked

1230
citing authors

#	ARTICLE	IF	CITATIONS
1	A Sparse Grid Stochastic Collocation Method for Partial Differential Equations with Random Input Data. <i>SIAM Journal on Numerical Analysis</i> , 2008, 46, 2309-2345.	1.1	819
2	An Anisotropic Sparse Grid Stochastic Collocation Method for Partial Differential Equations with Random Input Data. <i>SIAM Journal on Numerical Analysis</i> , 2008, 46, 2411-2442.	1.1	426
3	Stochastic finite element methods for partial differential equations with random input data. <i>Acta Numerica</i> , 2014, 23, 521-650.	6.3	156
4	Evaluation of Non-Intrusive Approaches for Wiener-Askey Generalized Polynomial Chaos. , 2008, , .		100
5	Polynomial approximation via compressed sensing of high-dimensional functions on lower sets. <i>Mathematics of Computation</i> , 2017, 87, 1415-1450.	1.1	81
6	A Multilevel Stochastic Collocation Method for Partial Differential Equations with Random Input Data. <i>SIAM-ASA Journal on Uncertainty Quantification</i> , 2015, 3, 1046-1074.	1.1	75
7	An adaptive sparse-grid high-order stochastic collocation method for Bayesian inference in groundwater reactive transport modeling. <i>Water Resources Research</i> , 2013, 49, 6871-6892.	1.7	72
8	Compressed Sensing Approaches for Polynomial Approximation of High-Dimensional Functions. <i>Applied and Numerical Harmonic Analysis</i> , 2017, , 93-124.	0.1	56
9	A class of null space conditions for sparse recovery via nonconvex, non-separable minimizations. <i>Results in Applied Mathematics</i> , 2019, 3, 100011.	0.5	48
10	A dynamically adaptive sparse grids method for quasi-optimal interpolation of multidimensional functions. <i>Computers and Mathematics With Applications</i> , 2016, 71, 2449-2465.	1.4	39
11	An improved multilevel Monte Carlo method for estimating probability distribution functions in stochastic oil reservoir simulations. <i>Water Resources Research</i> , 2016, 52, 9642-9660.	1.7	25
12	Design Under Uncertainty Employing Stochastic Expansion Methods. , 2008, , .		22
13	Non-Intrusive Inference Reduced Order Model for Fluids Using Deep Multistep Neural Network. <i>Mathematics</i> , 2019, 7, 757.	1.1	22
14	Analysis of quasi-optimal polynomial approximations for parameterized PDEs with deterministic and stochastic coefficients. <i>Numerische Mathematik</i> , 2017, 137, 451-493.	0.9	19
15	Hyperspherical Sparse Approximation Techniques for High-Dimensional Discontinuity Detection. <i>SIAM Review</i> , 2016, 58, 517-551.	4.2	18
16	Closure Learning for Nonlinear Model Reduction Using Deep Residual Neural Network. <i>Fluids</i> , 2020, 5, 39.	0.8	15
17	An Adaptive Wavelet Stochastic Collocation Method for Irregular Solutions of Partial Differential Equations with Random Input Data. <i>Lecture Notes in Computational Science and Engineering</i> , 2014, , 137-170.	0.1	15
18	A Hybrid Sparse-Grid Approach for Nonlinear Filtering Problems Based on Adaptive-Domain of the Zakai Equation Approximations. <i>SIAM-ASA Journal on Uncertainty Quantification</i> , 2014, 2, 784-804.	1.1	14

#	ARTICLE	IF	CITATIONS
19	On the Lebesgue constant of weighted Leja points for Lagrange interpolation on unbounded domains. IMA Journal of Numerical Analysis, 2019, 39, 1039-1057.	1.5	14
20	Numerical Analysis of Fixed Point Algorithms in the Presence of Hardware Faults. SIAM Journal of Scientific Computing, 2015, 37, C532-C553.	1.3	13
21	Analysis of the ratio of $\hat{\alpha}_1$ and $\hat{\alpha}_2$ norms in compressed sensing. Applied and Computational Harmonic Analysis, 2021, 55, 486-511.	1.1	12
22	A Hyperspherical Adaptive Sparse-Grid Method for High-Dimensional Discontinuity Detection. SIAM Journal on Numerical Analysis, 2015, 53, 1508-1536.	1.1	11
23	Reduced basis methods for nonlocal diffusion problems with random input data. Computer Methods in Applied Mechanics and Engineering, 2017, 317, 746-770.	3.4	11
24	A GRADIENT-BASED SAMPLING APPROACH FOR DIMENSION REDUCTION OF PARTIAL DIFFERENTIAL EQUATIONS WITH STOCHASTIC COEFFICIENTS. , 2015, 5, 49-72.		10
25	An asymptotically compatible probabilistic collocation method for randomly heterogeneous nonlocal problems. Journal of Computational Physics, 2022, 465, 111376.	1.9	10
26	An adaptive sparse-grid iterative ensemble Kalman filter approach for parameter field estimation. International Journal of Computer Mathematics, 2014, 91, 798-817.	1.0	9
27	Explicit cost bounds of stochastic Galerkin approximations for parameterized PDEs with random coefficients. Computers and Mathematics With Applications, 2016, 71, 2231-2256.	1.4	7
28	A mixed $\langle \hat{\alpha}_1 \rangle$ regularization approach for sparse simultaneous approximation of parameterized PDEs. ESAIM: Mathematical Modelling and Numerical Analysis, 2019, 53, 2025-2045.	0.8	7
29	Numerical methods for a class of nonlocal diffusion problems with the use of backward SDEs. Computers and Mathematics With Applications, 2016, 71, 2479-2496.	1.4	5
30	Reconstruction of jointly sparse vectors via manifold optimization. Applied Numerical Mathematics, 2019, 144, 140-150.	1.2	4
31	Application of High Performance Computing for Simulating the Unstable Dynamics of Dilute Spark-Ignited Combustion. Understanding Complex Systems, 2014, , 259-270.	0.3	4
32	Robust Learning with Implicit Residual Networks. Machine Learning and Knowledge Extraction, 2021, 3, 34-55.	3.2	4
33	A Sparse Grid Method for Bayesian Uncertainty Quantification with Application to Large Eddy Simulation Turbulence Models. Lecture Notes in Computational Science and Engineering, 2016, , 291-313.	0.1	3
34	Uncertainty quantification techniques for population density estimates derived from sparse open source data. , 2013, , .		2
35	A multilevel stochastic collocation method for SPDEs. AIP Conference Proceedings, 2015, , .	0.3	2
36	Evolve Filter Stabilization Reduced-Order Model for Stochastic Burgers Equation. Fluids, 2018, 3, 84.	0.8	2

#	ARTICLE	IF	CITATIONS
37	A surrogate modeling approach for crack pattern prediction in peridynamics. , 2017, , .		1
38	Sparse Collocation Methods for Stochastic Interpolation and Quadrature. , 2017, , 717-762.		1
39	A Nonlocal Feature-Driven Exemplar-Based Approach for Image Inpainting. SIAM Journal on Imaging Sciences, 2020, 13, 2140-2168.	1.3	1
40	An efficient surrogate modeling approach in Bayesian uncertainty analysis. , 2013, , .		0
41	Sparse Collocation Methods for Stochastic Interpolation and Quadrature. , 2015, , 1-46.		0
42	Reconstructing high-dimensional Hilbert-valued functions via compressed sensing. , 2019, , .		0
43	An Improved Discrete Least-Squares/Reduced-Basis Method for Parameterized Elliptic PDEs. Journal of Scientific Computing, 2019, 81, 76-91.	1.1	0
44	On the Strong Convergence of Forward-Backward Splitting in Reconstructing Jointly Sparse Signals. Set-Valued and Variational Analysis, 0, , 1.	0.5	0
45	AN EFFICIENT MESH-FREE IMPLICIT FILTER FOR NONLINEAR FILTERING PROBLEMS. , 2016, 6, 19-33.		0
46	Analysis of sparse recovery for Legendre expansions using envelope bound. Numerical Methods for Partial Differential Equations, 0, , .	2.0	0