Christine A Shoemaker

List of Publications by Year
in descending order

86	4,372	126708	106150
		33	65
papers	citations	h-index	g-index

88	88	88	3023
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dynamically dimensioned search algorithm for computationally efficient watershed model calibration. Water Resources Research, 2007, 43, .	1.7	553
2	A Stochastic Radial Basis Function Method for the Global Optimization of Expensive Functions. INFORMS Journal on Computing, 2007, 19, 497-509.	1.0	351
3	Constrained Global Optimization of Expensive Black Box Functions Using Radial Basis Functions. Journal of Global Optimization, 2005, 31, 153-171.	1.1	257
4	Combining radial basis function surrogates and dynamic coordinate search in high-dimensional expensive black-box optimization. Engineering Optimization, 2013, 45, 529-555.	1.5	186
5	ORBIT: Optimization by Radial Basis Function Interpolation in Trust-Regions. SIAM Journal of Scientific Computing, 2008, 30, 3197-3219.	1.3	175
6	Numerical Solution of Continuous-State Dynamic Programs Using Linear and Spline Interpolation. Operations Research, 1993, 41, 484-500.	1.2	163
7	Dynamic optimal control for groundwater remediation with flexible management periods. Water Resources Research, 1992, 28, 629-641.	1.7	162
8	SO-MI: A surrogate model algorithm for computationally expensive nonlinear mixed-integer black-box global optimization problems. Computers and Operations Research, 2013, 40, 1383-1400.	2.4	147
9	Cannonsville Reservoir Watershed SWAT2000 model development, calibration and validation. Journal of Hydrology, 2007, 337, 68-86.	2.3	129
10	Influence of ensemble surrogate models and sampling strategy on the solution quality of algorithms forÂcomputationally expensive black-box global optimization problems. Journal of Global Optimization, 2014, 60, 123-144.	1.1	127
11	Multi objective optimization of computationally expensive multi-modal functions with RBF surrogates and multi-rule selection. Journal of Global Optimization, 2016, 64, 17-32.	1.1	114
12	Applying Experimental Design and Regression Splines to High-Dimensional Continuous-State Stochastic Dynamic Programming. Operations Research, 1999, 47, 38-53.	1.2	112
13	Improved Strategies for Radial basis Function Methods for Global Optimization. Journal of Global Optimization, 2006, 37, 113-135.	1.1	111
14	Optimal time-varying pumping rates for groundwater remediation: Application of a constrained optimal control algorithm. Water Resources Research, 1992, 28, 3157-3173.	1.7	106
15	Calibration and Validation of Soil and Water Assessment Tool on an Agricultural Watershed in Upstate New York. Journal of Hydrologic Engineering - ASCE, 2005, 10, 363-374.	0.8	90
16	Dynamic Optimal Control of In-Situ Bioremediation of Ground Water. Journal of Water Resources Planning and Management - ASCE, 1998, 124, 149-161.	1.3	81
17	Introduction to special section on Uncertainty Assessment in Surface and Subsurface Hydrology: An overview of issues and challenges. Water Resources Research, 2009, 45, .	1.7	80
18	Comparison of function approximation, heuristic, and derivative-based methods for automatic calibration of computationally expensive groundwater bioremediation models. Water Resources Research, 2005, 41, .	1.7	79

#	Article	IF	Citations
19	Comparison of Optimization Methods for Ground-Water Bioremediation. Journal of Water Resources Planning and Management - ASCE, 1999, 125, 54-63.	1.3	76
20	Influence of vapor-phase sorption and diffusion on the fate of trichloroethylene in an unsaturated aquifer system. Environmental Science & Technology, 1988, 22, 571-578.	4.6	73
21	Efficient prediction uncertainty approximation in the calibration of environmental simulation models. Water Resources Research, 2008, 44, .	1.7	64
22	A quasi-multistart framework for global optimization of expensive functions using response surface models. Journal of Global Optimization, 2013, 56, 1719-1753.	1.1	63
23	Optimal control for groundwater remediation by differential dynamic programming with Quasi-Newton Approximations. Water Resources Research, 1993, 29, 823-831.	1.7	61
24	Assessing the impacts of parameter uncertainty for computationally expensive groundwater models. Water Resources Research, 2006, 42, .	1.7	60
25	Parallel Stochastic Global Optimization Using Radial Basis Functions. INFORMS Journal on Computing, 2009, 21, 411-426.	1.0	59
26	Flicker. , 2013, , .		55
27	Parallel radial basis function methods for the global optimization of expensive functions. European Journal of Operational Research, 2007, 182, 514-535.	3.5	52
28	SO-I: a surrogate model algorithm for expensive nonlinear integer programming problems including global optimization applications. Journal of Global Optimization, 2014, 59, 865-889.	1.1	44
29	Watershed calibration using multistart local optimization and evolutionary optimization with radial basis function approximation. Hydrological Sciences Journal, 2007, 52, 450-465.	1.2	43
30	Impact of Vapor Sorption on the Subsurface Transport of Volatile Organic Compounds: A Numerical Model and Analysis. Water Resources Research, 1991, 27, 2259-2270.	1.7	38
31	Improved Real-Coded GA for Groundwater Bioremediation. Journal of Computing in Civil Engineering, 2001, 15, 224-231.	2.5	37
32	Computational Issues for Optimal In-Situ Bioremediation Design. Journal of Water Resources Planning and Management - ASCE, 1998, 124, 39-46.	1.3	36
33	Estimating Maximal Annual Energy Given Heterogeneous Hydropower Generating Units with Application to the Three Gorges System. Journal of Water Resources Planning and Management - ASCE, 2013, 139, 265-276.	1.3	36
34	Methodology for Analyzing Ranges of Uncertain Model Parameters and Their Impact on Total Maximum Daily Load Process. Journal of Environmental Engineering, ASCE, 2004, 130, 648-656.	0.7	34
35	An on-line variable-fidelity surrogate-assisted harmony search algorithm with multi-level screening strategy for expensive engineering design optimization. Knowledge-Based Systems, 2019, 170, 1-19.	4.0	33
36	INFLUENCE OF APPLE CULTIVAR, TREE PHENOLOGY, AND LEAF QUALITY ON THE DEVELOPMENT AND MORTALITY OF CHORISTONEURA ROSACEANA (LEPIDOPTERA: TORTRICIDAE). Canadian Entomologist, 1986, 118, 123-132.	0.4	31

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37	Dynamic Optimal Ground-Water Reclamation with Treatment Capital Costs. Journal of Water Resources Planning and Management - ASCE, 1997, 123, 23-29.	1.3	31
38	Nonlinear weighted feedback control of groundwater remediation under uncertainty. Water Resources Research, 1993, 29, 3277-3289.	1.7	30
39	Differentiating a Finite Element Biodegradation Simulation Model for Optimal Control. Water Resources Research, 1996, 32, 187-192.	1.7	29
40	Impact of human activities on stream flow in the Biliu River basin, China. Hydrological Processes, 2013, 27, 2509-2523.	1.1	29
41	Hierarchical multi-reservoir optimization modeling for real-world complexity with application to the Three Gorges system. Environmental Modelling and Software, 2015, 69, 319-329.	1.9	29
42	SOP: parallel surrogate global optimization with Pareto center selection for computationally expensive single objective problems. Journal of Global Optimization, 2016, 66, 417-437.	1.1	28
43	Utilizing Sparsity in Time-Varying Optimal Control of Aquifer Cleanup. Journal of Water Resources Planning and Management - ASCE, 1998, 124, 15-21.	1.3	22
44	Comparison of optimization algorithms for parameter estimation of multi-phase flow models with application to geological carbon sequestration. Advances in Water Resources, 2013, 54, 133-148.	1.7	21
45	A combined system of microwave-functionalized rice husk and poly-aluminium chloride for trace cadmium-contaminated source water purification: Exploration of removal efficiency and mechanism. Journal of Hazardous Materials, 2019, 379, 120804.	6.5	21
46	A multi-fidelity RBF surrogate-based optimization framework for computationally expensive multi-modal problems with application to capacity planning of manufacturing systems. Structural and Multidisciplinary Optimization, 2020, 62, 1787-1807.	1.7	19
47	Application of <scp>SWAT</scp> with and without Variable Source Area Hydrology to a Large Watershed. Journal of the American Water Resources Association, 2014, 50, 42-56.	1.0	15
48	Quantifying the effects of uncertainty on optimal groundwater bioremediation policies. Water Resources Research, 1998, 34, 3615-3625.	1.7	14
49	Optimal remediation of unconfined aquifers: Numerical applications and derivative calculations. Water Resources Research, 1999, 35, 1455-1469.	1.7	14
50	Surrogate Global Optimization for Identifying Cost‐Effective Green Infrastructure for Urban Flood Control With a Computationally Expensive Inundation Model. Water Resources Research, 2022, 58, .	1.7	14
51	Local Derivative-Free Approximation of Computationally Expensive Posterior Densities. Journal of Computational and Graphical Statistics, 2012, 21, 476-495.	0.9	12
52	Analytical models of the impact of two‐phase sorption on subsurface transport of volatile chemicals. Water Resources Research, 1990, 26, 745-758.	1.7	10
53	CuttleSys: Data-Driven Resource Management for Interactive Services on Reconfigurable Multicores. , 2020, , .		10
54	Reply to comment on "Dynamically dimensioned search algorithm for computationally efficient watershed model calibration"by Ali Behrangi et al.. Water Resources Research, 2008, 44, .	1.7	9

#	ARTICLE	IF	CITATIONS
55	Preconditioning Water Distribution Network Optimization with Head Loss–Based Design Method. Journal of Water Resources Planning and Management - ASCE, 2020, 146, .	1.3	9
56	Flicker. Computer Architecture News, 2013, 41, 13-23.	2.5	8
57	A watershed rainfall data recovery approach with application to distributed hydrological models. Hydrological Processes, 2012, 26, 1937-1948.	1.1	7
58	Integrating $$\varepsilon$$-dominance and RBF surrogate optimization for solving computationally expensive many-objective optimization problems. Journal of Global Optimization, 2022, 82, 965-992.	1.1	7
59	Efficient, parallelized global optimization of groundwater pumping in a regional aquifer with land subsidence constraints. Journal of Environmental Management, 2022, 310, 114753.	3.8	7
60	Efficient Interpolation of Computationally Expensive Posterior Densities With Variable Parameter Costs. Journal of Computational and Graphical Statistics, 2011, 20, 636-655.	0.9	6
61	Uncertainty Analysis for Computationally Expensive Models with Multiple Outputs. Journal of Agricultural, Biological, and Environmental Statistics, 2012, 17, 623-640.	0.7	6
62	SO-MODS: Optimization for high dimensional computationally expensive multi-modal functions with surrogate search. , 2014, , .		6
63	SOMS: SurrOgate MultiStart algorithm for use with nonlinear programming for global optimization. International Transactions in Operational Research, 2017, 24, 1139-1172.	1.8	6
64	Improving the speed of global parallel optimization on PDE models with processor affinity scheduling. Computer-Aided Civil and Infrastructure Engineering, 2022, 37, 279-299.	6.3	6
65	Multi-objective optimization of an integrated biomass waste fixed-bed gasification system for power and biochar co-production. Computers and Chemical Engineering, 2021, 154, 107457.	2.0	5
66	Analysis of the Regional Dynamics of Unsprayed Spruce Budworm (Lepidoptera: Tortricidae) Populations. Environmental Entomology, 1983, 12, 707-713.	0.7	4
67	SENSITIVITY AND UNCERTAINTY ANALYSIS OF A DISTRIBUTED WATERSHED MODEL FOR THE TMDL PROCESS. Proceedings of the Water Environment Federation, 2002, 2002, 1229-1240.	0.0	4
68	Screening of One–Well Hydraulic Barrier Design Alternatives. Ground Water, 2008, 46, 743-754.	0.7	4
69	Stochastic Assessment of Long-Term Impacts of Phosphorus Management Options on Sustainability with and without Climate Change. Journal of Water Resources Planning and Management - ASCE, 2013, 139, 512-519.	1.3	3
70	A novel objective function DYNO for automatic multivariable calibration of 3DÂlake models. Hydrology and Earth System Sciences, 2022, 26, 3651-3671.	1.9	2
71	Optimal Integrated Control of Alfalfa Weevil, Hypera postica (Gyllenhal) (Coleoptera: Curculionidae). EPPO Bulletin, 1979, 9, 305-315.	0.6	1
72	Regression Dynamic Programming for Multiple-Reservoir Control. , 2000, , 1.		1

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73	Bi-Level Optimization Model for Daily Operation with Heterogeneous Hydropower Units in Multiple Reservoirs with Application to the Three Gorges-Gezhouba Cascade Power Stations. , 2011, , .		1
74	Combining local surrogates and adaptive restarts for global optimization of moderately expensive functions. AIP Conference Proceedings, 2019, , .	0.3	1
75	Combining Adaptive Budget Allocation with Surrogate Methodology in Solving Continuous Scenario-based Simulation Optimization. , 2020, , .		1
76	A Hybrid of Shrinking Ball Method and Optimal Large Deviation Rate Estimation in Continuous Contextual Simulation Optimization with Single Observation. , 2020, , .		1
77	Computationally Efficient Optimization of Groundwater Remediation. , 2000, , 1.		0
78	New Dynamically Dimensioned Search Algorithm for Automatic Calibration with Application to Phosphorous Transport in Northeast Watershed. , 2006, , 1.		0
79	Computationally Efficient Procedures for Uncertainty Assessment of Complex Environmental Models. , 2008, , .		0
80	A Comparison of a SWAT Model for the Cannonsville Watershed with and without Variable Source Area Hydrology. , 2009, , .		0
81	Global sensitivity analysis for computationally expensive models based on radial basis function interpolationand optimization. , 2015, , .		0
82	An adaptive population-based candidate search algorithm with surrogates for global multi objective optimization of expensive functions. AIP Conference Proceedings, 2019, , .	0.3	0
83	SOP-Hybrid: A Parallel Surrogate-Based Candidate Search Algorithm forÂExpensive Optimization on Large Parallel Clusters. Advances in Intelligent Systems and Computing, 2020, , 672-680.	0.5	0
84	Input parameter tuning of 3D biodiesel engine simulation using parallel surrogate optimization algorithm. Computers and Chemical Engineering, 2021, 145, 107180.	2.0	0
85	Hyper-Parameter Optimization for Deep Learning by Surrogate-based Model with Weighted Distance Exploration. , 2021, , .		0
86	Global Optimization for Noisy Expensive Black-Box Multi-Modal Functions Via Radial Basis Function Surrogate. , 2020, , .		0