Christine A Shoemaker

List of Publications by Year
in descending order

86 papers	4,372 citations	126708 33 h-index	106150 65 g-index
88 all docs	88 docs citations	88 times ranked	3023 citing authors

#	Article	IF	Citations
1	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
2	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
3	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
4	Surrogate Global Optimization for Identifying Costâ€Effective Green Infrastructure for Urban Flood Control With a Computationally Expensive Inundation Model. Water Resources Research, 2022, 58, .	1.7	14
5	A novel objective function DYNO for automatic multivariable calibration of 3DÂlake models. Hydrology and Earth System Sciences, 2022, 26, 3651-3671.	1.9	2
6	Input parameter tuning of 3D biodiesel engine simulation using parallel surrogate optimization algorithm. Computers and Chemical Engineering, 2021, 145, 107180.	2.0	0
7	Hyper-Parameter Optimization for Deep Learning by Surrogate-based Model with Weighted Distance Exploration. , 2021, , .		0
8	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
9	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
10	Preconditioning Water Distribution Network Optimization with Head Lossâ€“Based Design Method. Journal of Water Resources Planning and Management - ASCE, 2020, 146, .	1.3	9
11	Combining Adaptive Budget Allocation with Surrogate Methodology in Solving Continuous Scenario-based Simulation Optimization. , 2020, , .		1
12	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
13	A Hybrid of Shrinking Ball Method and Optimal Large Deviation Rate Estimation in Continuous Contextual Simulation Optimization with Single Observation. , 2020, , .		1
14	Global Optimization for Noisy Expensive Black-Box Multi-Modal Functions Via Radial Basis Function Surrogate. , 2020, , .		0
15	CuttleSys: Data-Driven Resource Management for Interactive Services on Reconfigurable Multicores. , 2020, , .		10
16	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
17	Combining local surrogates and adaptive restarts for global optimization of moderately expensive functions. AIP Conference Proceedings, 2019, , .	0.3	1
18	An adaptive population-based candidate search algorithm with surrogates for global multi objective optimization of expensive functions. AIP Conference Proceedings, 2019, , .	0.3	0

#	Article	IF	Citations
19	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
20	SOMS: SurrOgate MultiStart algorithm for use with nonlinear programming for global optimization. International Transactions in Operational Research, 2017, 24, 1139-1172.	1.8	6
21	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
22	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
23	Global sensitivity analysis for computationally expensive models based on radial basis function interpolationand optimization. , 2015, , .		0
24	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
25	SO-MODS: Optimization for high dimensional computationally expensive multi-modal functions with surrogate search. , 2014, , .		6
26	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
27	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
28	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
29	Impact of human activities on stream flow in the Biliu River basin, China. Hydrological Processes, 2013, 27, 2509-2523.	1.1	29
30	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
31	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
32	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
33	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
34	Flicker. , 2013, , .		55
35	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
36	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

#	Article	IF	Citations
37	Flicker. Computer Architecture News, 2013, 41, 13-23.	2.5	8
38	Local Derivative-Free Approximation of Computationally Expensive Posterior Densities. Journal of Computational and Graphical Statistics, 2012, 21, 476-495.	0.9	12
39	Uncertainty Analysis for Computationally Expensive Models with Multiple Outputs. Journal of Agricultural, Biological, and Environmental Statistics, 2012, 17, 623-640.	0.7	6
40	A watershed rainfall data recovery approach with application to distributed hydrological models. Hydrological Processes, 2012, 26, 1937-1948.	1.1	7
41	Efficient Interpolation of Computationally Expensive Posterior Densities With Variable Parameter Costs. Journal of Computational and Graphical Statistics, 2011, 20, 636-655.	0.9	6
42	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
43	A Comparison of a SWAT Model for the Cannonsville Watershed with and without Variable Source Area Hydrology. , 2009, , .		0
44	Parallel Stochastic Global Optimization Using Radial Basis Functions. INFORMS Journal on Computing, 2009, 21, 411-426.	1.0	59
45	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
46	Screening of Oneâ€Well Hydraulic Barrier Design Alternatives. Ground Water, 2008, 46, 743-754.	0.7	4
47	ORBIT: Optimization by Radial Basis Function Interpolation in Trust-Regions. SIAM Journal of Scientific Computing, 2008, 30, 3197-3219.	1.3	175
48	Efficient prediction uncertainty approximation in the calibration of environmental simulation models. Water Resources Research, 2008, 44, .	1.7	64
49	Reply to comment on â€œDynamically dimensioned search algorithm for computationally efficient watershed model calibrationâ€•by Ali Behrangi et al.. Water Resources Research, 2008, 44, .	1.7	9
50	Computationally Efficient Procedures for Uncertainty Assessment of Complex Environmental Models. , 2008, , .		0
51	A Stochastic Radial Basis Function Method for the Global Optimization of Expensive Functions. INFORMS Journal on Computing, 2007, 19, 497-509.	1.0	351
52	Watershed calibration using multistart local optimization and evolutionary optimization with radial basis function approximation. Hydrological Sciences Journal, 2007, 52, 450-465.	1.2	43
53	Cannonsville Reservoir Watershed SWAT2000 model development, calibration and validation. Journal of Hydrology, 2007, 337, 68-86.	2.3	129
54	Dynamically dimensioned search algorithm for computationally efficient watershed model calibration. Water Resources Research, 2007, 43, .	1.7	553

#	Article	IF	Citations
55	Parallel radial basis function methods for the global optimization of expensive functions. European Journal of Operational Research, 2007, 182, 514-535.	3.5	52
56	Assessing the impacts of parameter uncertainty for computationally expensive groundwater models. Water Resources Research, 2006, 42, .	1.7	60
57	New Dynamically Dimensioned Search Algorithm for Automatic Calibration with Application to Phosphorous Transport in Northeast Watershed. , 2006, , 1.		0
58	Improved Strategies for Radial basis Function Methods for Global Optimization. Journal of Global Optimization, 2006, 37, 113-135.	1.1	111
59	Constrained Global Optimization of Expensive Black Box Functions Using Radial Basis Functions. Journal of Global Optimization, 2005, 31, 153-171.	1.1	257
60	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
61	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
62	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
63	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
64	Improved Real-Coded GA for Groundwater Bioremediation. Journal of Computing in Civil Engineering, 2001, 15, 224-231.	2.5	37
65	Computationally Efficient Optimization of Groundwater Remediation. , 2000, , 1.		0
66	Regression Dynamic Programming for Multiple-Reservoir Control. , 2000, , 1.		1
67	Comparison of Optimization Methods for Ground-Water Bioremediation. Journal of Water Resources Planning and Management - ASCE, 1999, 125, 54-63.	1.3	76
68	Applying Experimental Design and Regression Splines to High-Dimensional Continuous-State Stochastic Dynamic Programming. Operations Research, 1999, 47, 38-53.	1.2	112
69	Optimal remediation of unconfined aquifers: Numerical applications and derivative calculations. Water Resources Research, 1999, 35, 1455-1469.	1.7	14
70	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
71	Quantifying the effects of uncertainty on optimal groundwater bioremediation policies. Water Resources Research, 1998, 34, 3615-3625.	1.7	14
72	Computational Issues for Optimal In-Situ Bioremediation Design. Journal of Water Resources Planning and Management - ASCE, 1998, 124, 39-46.	1.3	36

#	Article	IF	Citations
73	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
74	Dynamic Optimal Ground-Water Reclamation with Treatment Capital Costs. Journal of Water Resources Planning and Management - ASCE, 1997, 123, 23-29.	1.3	31
75	Differentiating a Finite Element Biodegradation Simulation Model for Optimal Control. Water Resources Research, 1996, 32, 187-192.	1.7	29
76	Optimal control for groundwater remediation by differential dynamic programming with Quasi-Newton Approximations. Water Resources Research, 1993, 29, 823-831.	1.7	61
77	Nonlinear weighted feedback control of groundwater remediation under uncertainty. Water Resources Research, 1993, 29, 3277-3289.	1.7	30
78	Numerical Solution of Continuous-State Dynamic Programs Using Linear and Spline Interpolation. Operations Research, 1993, 41, 484-500.	1.2	163
79	Dynamic optimal control for groundwater remediation with flexible management periods. Water Resources Research, 1992, 28, 629-641.	1.7	162
80	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
81	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
82	Analytical models of the impact of twoâ€phase sorption on subsurface transport of volatile chemicals. Water Resources Research, 1990, 26, 745-758.	1.7	10
83	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
84	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
85	Analysis of the Regional Dynamics of Unsprayed Spruce Budworm (Lepidoptera: Tortricidae) Populations. Environmental Entomology, 1983, 12, 707-713.	0.7	4
86	Optimal Integrated Control of Alfalfa Weevil, Hypera postica (Gyllenhal) (Coleoptera: Curculionidae). EPPO Bulletin, 1979, 9, 305-315.	0.6	1