

Song Wang

List of Publications by Year in descending order

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119
papers

1,823
citations

279487

23
h-index

329751

37
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120
all docs

120
docs citations

120
times ranked

799
citing authors

#	ARTICLE	IF	CITATIONS
1	A novel fitted finite volume method for the Black-Scholes equation governing option pricing. IMA Journal of Numerical Analysis, 2004, 24, 699-720.	1.5	123
2	Power Penalty Method for a Linear Complementarity Problem Arising from American Option Valuation. Journal of Optimization Theory and Applications, 2006, 129, 227-254.	0.8	103
3	Drug release characteristics of phase separation PHEMA sponge materials. Biomaterials, 2004, 25, 5071-5080.	5.7	67
4	On a Class of Optimal Control Problems with State Jumps. Journal of Optimization Theory and Applications, 1998, 98, 65-82.	0.8	61
5	Convergence of a fitted finite volume method for the penalized Black-Scholes equation governing European and American Option pricing. Numerische Mathematik, 2007, 106, 1-40.	0.9	61
6	DISRUPTION MANAGEMENT FOR SUPPLY CHAIN COORDINATION WITH EXPONENTIAL DEMAND FUNCTION. Acta Mathematica Scientia, 2006, 26, 655-669.	0.5	60
7	A power penalty method for linear complementarity problems. Operations Research Letters, 2008, 36, 211-214.	0.5	55
8	A new non-conforming Petrov-Galerkin finite-element method with triangular elements for a singularly perturbed advection-diffusion problem. IMA Journal of Numerical Analysis, 1994, 14, 257-276.	1.5	52
9	A power penalty approach to a Nonlinear Complementarity Problem. Operations Research Letters, 2010, 38, 72-76.	0.5	52
10	An upwind finite difference method for a nonlinear Black-Scholes equation governing European option valuation under transaction costs. Applied Mathematics and Computation, 2013, 219, 8811-8828.	1.4	42
11	An Exponentially Fitted Finite Volume Method for the Numerical Solution of 2D Unsteady Incompressible Flow Problems. Journal of Computational Physics, 1994, 115, 56-64.	1.9	39
12	Numerical Solution of Hamilton-Jacobi-Bellman Equations by an Upwind Finite Volume Method. Journal of Global Optimization, 2003, 27, 177-192.	1.1	36
13	A Fitted Finite Volume Method for the Valuation of Options on Assets with Stochastic Volatilities. Computing (Vienna/New York), 2006, 77, 297-320.	3.2	32
14	Distributed leader-following consensus of nonlinear multi-agent systems with nonlinear input dynamics. Neurocomputing, 2018, 286, 193-197.	3.5	32
15	A Hybrid Offline Optimization Method for Reconfiguration of Multi-UAV Formations. IEEE Transactions on Aerospace and Electronic Systems, 2021, 57, 506-520.	2.6	31
16	Pricing American bond options using a penalty method. Automatica, 2012, 48, 472-479.	3.0	30
17	A penalty method for a fractional order parabolic variational inequality governing American put option valuation. Computers and Mathematics With Applications, 2014, 67, 77-90.	1.4	30
18	Penalty Approach to the HJB Equation Arising in European Stock Option Pricing with Proportional Transaction Costs. Journal of Optimization Theory and Applications, 2009, 143, 279-293.	0.8	29

#	ARTICLE	IF	CITATIONS
19	A superconvergent fitted finite volume method for Black-Scholes equations governing European and American option valuation. Numerical Methods for Partial Differential Equations, 2015, 31, 1190-1208.	2.0	29
20	Discretization of Semiconductor Device Problems (I). Handbook of Numerical Analysis, 2005, 13, 317-441.	0.9	28
21	On application of an alternating direction method to Hamilton-Jacobi-Bellman equations. Journal of Computational and Applied Mathematics, 2004, 166, 153-166.	1.1	27
22	Nonlinear system modeling via knot-optimizing B-spline networks. IEEE Transactions on Neural Networks, 2001, 12, 1013-1022.	4.8	24
23	A penalty method for a mixed nonlinear complementarity problem. Nonlinear Analysis: Theory, Methods & Applications, 2012, 75, 588-597.	0.6	24
24	Numerical Solution of Fractional Optimal Control. Journal of Optimization Theory and Applications, 2019, 180, 556-573.	0.8	24
25	A Novel Exponentially Fitted Triangular Finite Element Method for an Advection-Diffusion Problem with Boundary Layers. Journal of Computational Physics, 1997, 134, 253-260.	1.9	23
26	Pricing options under jump diffusion processes with fitted finite volume method. Applied Mathematics and Computation, 2008, 201, 398-413.	1.4	23
27	Pricing American options under proportional transaction costs using a penalty approach and a finite difference scheme. Journal of Industrial and Management Optimization, 2013, 9, 365-389.	0.8	23
28	A radial basis collocation method for Hamilton-Jacobi-Bellman equations. Automatica, 2006, 42, 2201-2207.	3.0	22
29	A finite difference method for pricing European and American options under a geometric Lévy process. Journal of Industrial and Management Optimization, 2015, 11, 241-264.	0.8	22
30	A computational scheme for uncertain volatility model in option pricing. Applied Numerical Mathematics, 2009, 59, 1754-1767.	1.2	21
31	Optimal Control Computation for Nonlinear Fractional Time-Delay Systems with State Inequality Constraints. Journal of Optimization Theory and Applications, 2021, 191, 83-117.	0.8	21
32	Second-order consensus for heterogeneous multi-agent systems with input constraints. Neurocomputing, 2019, 351, 43-50.	3.5	19
33	A 2nd-order ADI finite difference method for a 2D fractional Black-Scholes equation governing European two asset option pricing. Mathematics and Computers in Simulation, 2020, 171, 279-293.	2.4	19
34	Numerical solution of free final time fractional optimal control problems. Applied Mathematics and Computation, 2021, 405, 126270.	1.4	19
35	Convergence property of an interior penalty approach to pricing American option. Journal of Industrial and Management Optimization, 2011, 7, 435-447.	0.8	19
36	Three-dimensional exponentially fitted conforming tetrahedral finite elements for the semiconductor continuity equations. Applied Numerical Mathematics, 2003, 46, 19-43.	1.2	17

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37	An analysis of the Scharfetter-Gummel box method for the stationary semiconductor device equations. <i>ESAIM: Mathematical Modelling and Numerical Analysis</i> , 1994, 28, 123-140.	0.8	16
38	Numerical solution of Hamiltonâ€“Jacobiâ€“Bellman equations by an exponentially fitted finite volume method. <i>Optimization</i> , 2006, 55, 121-140.	1.0	16
39	A power penalty method for solving a nonlinear parabolic complementarity problem. <i>Nonlinear Analysis: Theory, Methods & Applications</i> , 2008, 69, 1125-1137.	0.6	16
40	Eventâ€“triggered probabilistic robust control of linear systems with input constraints: By scenario optimization approach. <i>International Journal of Robust and Nonlinear Control</i> , 2018, 28, 144-153.	2.1	15
41	On convergence of a fitted finite-volume method for the valuation of options on assets with stochastic volatilities. <i>IMA Journal of Numerical Analysis</i> , 2010, 30, 1101-1120.	1.5	14
42	Mathematical models for estimating effective diffusion parameters of spherical drug delivery devices. <i>Theoretical Chemistry Accounts</i> , 2010, 125, 659-669.	0.5	13
43	Numerical performance of penalty method for American option pricing. <i>Optimization Methods and Software</i> , 2010, 25, 737-752.	1.6	12
44	Characterizations of robust solution set of convex programs with uncertain data. <i>Optimization Letters</i> , 2018, 12, 1387-1402.	0.9	12
45	A note on integrals for birthâ€“death processes. <i>Mathematical Biosciences</i> , 2000, 168, 161-165.	0.9	11
46	Superconvergence of solution derivatives of the Shortleyâ€“Weller difference approximation to Poisson's equation with singularities on polygonal domains. <i>Applied Numerical Mathematics</i> , 2008, 58, 689-704.	1.2	11
47	A numerical method for pricing European options with proportional transaction costs. <i>Journal of Global Optimization</i> , 2014, 60, 59-78.	1.1	11
48	Penalty approach to a nonlinear obstacle problem governing American put option valuation under transaction costs. <i>Applied Mathematics and Computation</i> , 2015, 251, 318-330.	1.4	11
49	Asynchronous Hâˆž control for nonhomogeneous higher-level Markov jump systems. <i>Journal of the Franklin Institute</i> , 2020, 357, 4697-4708.	1.9	11
50	A Hybrid Deep Learning Model for Proteinâ€“Protein Interactions Extraction from Biomedical Literature. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 2690.	1.3	11
51	An adaptive least-squares collocation radial basis function method for the HJB equation. <i>Journal of Global Optimization</i> , 2012, 52, 305-322.	1.1	10
52	A penalty method for a finite-dimensional obstacle problem with derivative constraints. <i>Optimization Letters</i> , 2014, 8, 1799-1811.	0.9	10
53	A power penalty method for a 2D fractional partial differential linear complementarity problem governing two-asset American option pricing. <i>Applied Mathematics and Computation</i> , 2017, 305, 174-187.	1.4	10
54	An interior penalty method for a large-scale finite-dimensional nonlinear double obstacle problem. <i>Applied Mathematical Modelling</i> , 2018, 58, 217-228.	2.2	10

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55	Modelling and optimal state-delay control in microbial batch process. Applied Mathematical Modelling, 2021, 89, 792-801.	2.2	10
56	A 2nd-order one-point numerical integration scheme for fractional ordinary differential equations. Numerical Algebra, Control and Optimization, 2017, 7, 273-287.	1.0	10
57	A new exponentially fitted triangular finite element method for the continuity equations in the drift-diffusion model of semiconductor devices. ESAIM: Mathematical Modelling and Numerical Analysis, 1999, 33, 99-112.	0.8	9
58	The finite element method with weighted basis functions for singularly perturbed convection-diffusion problems. Journal of Computational Physics, 2004, 195, 773-789.	1.9	9
59	A penalty approach to a discretized double obstacle problem with derivative constraints. Journal of Global Optimization, 2015, 62, 775-790.	1.1	9
60	A power penalty method for a bounded nonlinear complementarity problem. Optimization, 2015, 64, 2377-2394.	1.0	9
61	The finite volume method and application in combinations. Journal of Computational and Applied Mathematics, 1999, 106, 21-53.	1.1	8
62	Solving convection-dominated anisotropic diffusion equations by an exponentially fitted finite volume method. Computers and Mathematics With Applications, 2002, 44, 1249-1265.	1.4	8
63	An analysis of a conforming exponentially fitted finite element method for a convection-diffusion problem. Journal of Computational and Applied Mathematics, 2002, 143, 291-310.	1.1	8
64	Pricing European options with proportional transaction costs and stochastic volatility using a penalty approach and a finite volume scheme. Computers and Mathematics With Applications, 2017, 73, 2454-2469.	1.4	8
65	A super-convergent unsymmetric finite volume method for convection-diffusion equations. Journal of Computational and Applied Mathematics, 2019, 358, 179-189.	1.1	8
66	Robust multi-period and multi-objective portfolio selection. Journal of Industrial and Management Optimization, 2021, 17, 695-709.	0.8	8
67	Optimal Control of Nonlinear Fractional-Order Systems with Multiple Time-Varying Delays. Journal of Optimization Theory and Applications, 2022, 193, 856-876.	0.8	8
68	An optimization approach to the estimation of effective drug diffusivity: From a planar disc into a finite external volume. Journal of Industrial and Management Optimization, 2009, 5, 127-140.	0.8	8
69	A nonconforming combination of the finite element and volume methods with an anisotropic mesh refinement for a singularly perturbed convection-diffusion equation. Mathematics of Computation, 2003, 72, 1689-1710.	1.1	7
70	On Convergence of the Exponentially Fitted Finite Volume Method With an Anisotropic Mesh Refinement for a Singularly Perturbed Convection-diffusion Equation. Computational Methods in Applied Mathematics, 2003, 3, 493-512.	0.4	7
71	Numerical methods for the estimation of effective diffusion coefficients of 2D controlled drug delivery systems. Optimization and Engineering, 2010, 11, 611-626.	1.3	7
72	A power penalty approach to a mixed quasilinear elliptic complementarity problem. Journal of Global Optimization, 0, , 1.	1.1	7

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73	A multivariate adaptive regression B-spline algorithm (BMARS) for solving a class of nonlinear optimal feedback control problems. <i>Automatica</i> , 2008, 44, 1149-1155.	3.0	6
74	Convergent Network Approximation for the Continuous Euclidean Length Constrained Minimum Cost Path Problem. <i>SIAM Journal on Optimization</i> , 2009, 20, 54-77.	1.2	6
75	An interior penalty method for a finite-dimensional linear complementarity problem in financial engineering. <i>Optimization Letters</i> , 2018, 12, 1161-1178.	0.9	6
76	Stochastic Model Predictive Control for the Set Point Tracking of Unmanned Surface Vehicles. <i>IEEE Access</i> , 2020, 8, 579-588.	2.6	6
77	The viscosity approximation to the Hamilton-Jacobi-Bellman equation in optimal feedback control: Upper bounds for extended domains. <i>Journal of Industrial and Management Optimization</i> , 2010, 6, 161-175.	0.8	6
78	On necessary optimality conditions and exact penalization for a constrained fractional optimal control problem. <i>Optimal Control Applications and Methods</i> , 2022, 43, 1096-1108.	1.3	6
79	An a posteriori error estimate for finite element approximations of a singularly perturbed advection-diffusion problem. <i>Journal of Computational and Applied Mathematics</i> , 1997, 87, 227-242.	1.1	5
80	Pricing options on investment project expansions under commodity price uncertainty. <i>Journal of Industrial and Management Optimization</i> , 2019, 15, 261-273.	0.8	5
81	Design of green bonds by double-barrier options. <i>Discrete and Continuous Dynamical Systems - Series S</i> , 2020, 13, 1867-1882.	0.6	5
82	Particular solutions of singularly perturbed partial differential equations with constant coefficients in rectangular domains, Part I. Convergence analysis. <i>Journal of Computational and Applied Mathematics</i> , 2004, 166, 181-208.	1.1	4
83	On Stability and Convergence of a Finite Difference Approximation to a Parabolic Variational Inequality Arising From American Option Valuation. <i>Stochastic Analysis and Applications</i> , 2006, 24, 1185-1204.	0.9	4
84	Accurate and approximate analytic solutions of singularly perturbed differential equations with two-dimensional boundary layers. <i>Computers and Mathematics With Applications</i> , 2008, 55, 2602-2622.	1.4	4
85	Superconvergence of Solution Derivatives of the Shortley-Weller Difference Approximation to Elliptic Equations with Singularities Involving the Mixed Type of Boundary Conditions. <i>Numerical Functional Analysis and Optimization</i> , 2008, 29, 161-196.	0.6	4
86	H_∞ Filtering for Uncertain Periodic Markov Jump Systems with Periodic and Partly Unknown Information. <i>Circuits, Systems, and Signal Processing</i> , 2018, 37, 4200-4214.	1.2	4
87	A power penalty approach to a discretized obstacle problem with nonlinear constraints. <i>Optimization Letters</i> , 2019, 13, 1483-1504.	0.9	4
88	A Computer Algorithm for Optimizing to Extract Effective Diffusion Coefficients of Drug Delivery from Cylinders. <i>Information Technology Journal</i> , 2010, 9, 1647-1652.	0.3	4
89	A numerical scheme for pricing American options with transaction costs under a jump diffusion process. <i>Journal of Industrial and Management Optimization</i> , 2017, 13, 1793-1813.	0.8	4
90	Estimation of effective diffusion coefficients of drug delivery devices in a flow-through system. <i>Journal of Engineering Mathematics</i> , 2014, 87, 139-152.	0.6	3

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91	Knot-optimizing spline networks (KOSNETS) for nonparametric regression. Journal of Industrial and Management Optimization, 2008, 4, 33-52.	0.8	3
92	Probabilistic control of Markov jump systems by scenario optimization approach. Journal of Industrial and Management Optimization, 2017, 13, 1-7.	0.8	3
93	Pricing options on investment project contraction and ownership transfer using a finite volume scheme and an interior penalty method. Journal of Industrial and Management Optimization, 2020, 16, 1349-1368.	0.8	3
94	Multidimensional exponentially fitted simplicial finite elements for convection-diffusion equations with tensor-valued diffusion. Calcolo, 2005, 42, 71-91.	0.6	2
95	Convergence of a finite element approximation to a degenerate parabolic variational inequality with non-smooth data arising from American option valuation. Optimization Methods and Software, 2010, 25, 699-723.	1.6	2
96	An adaptive domain decomposition method for the Hamilton-Jacobi-Bellman equation. Journal of Global Optimization, 2013, 56, 1361-1373.	1.1	2
97	Probabilistic robust anti-disturbance control of uncertain systems. Journal of Industrial and Management Optimization, 2021, 17, 2441.	0.8	2
98	Determination of effective diffusion coefficients of drug delivery devices by a state observer approach. Discrete and Continuous Dynamical Systems - Series B, 2011, 16, 1119-1136.	0.5	2
99	Numerical methods for estimating effective diffusion coefficients of three-dimensional drug delivery systems. Numerical Algebra, Control and Optimization, 2012, 2, 377-393.	1.0	2
100	Modeling and computation of energy efficiency management with emission permits trading. Journal of Industrial and Management Optimization, 2018, 14, 1349-1365.	0.8	2
101	ON CHAOTIC BEHAVIORS OF INCOMPRESSIBLE FLUID FLOWS IN TRIANGULAR DRIVEN CAVITIES. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2005, 15, 3103-3118.	0.7	1
102	New Mathematical Models for Effective Drug Diffusivity Estimation in 2D. Materials Science Forum, 2007, 561-565, 1557-1560.	0.3	1
103	Superconvergence of Solution Derivatives for the Shortley-Weller Difference Approximation for Parabolic Problems. Numerical Functional Analysis and Optimization, 2009, 30, 1360-1380.	0.6	1
104	An interior penalty approach to a large-scale discretized obstacle problem with nonlinear constraints. Numerical Algorithms, 2020, 85, 571-589.	1.1	1
105	Event-Triggered Disturbance Rejection Control of Discrete Systems. IEEE Access, 2020, 8, 77934-77939.	2.6	1
106	A modification of Galerkin's method for option pricing. Journal of Industrial and Management Optimization, 2021, .	0.8	1
107	Price options on investment project expansion under commodity price and volatility uncertainties using a novel finite difference method. Applied Mathematics and Computation, 2022, 421, 126937.	1.4	1
108	Domain decomposition technique for the continuity equations of semiconductor device models. Journal of Computational and Applied Mathematics, 1989, 28, 403-412.	1.1	0

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109	Identifying Time-Dependent Drug Diffusion Parameters in the Cylindrical Tube by Optimal Algorithm. <i>Advanced Materials Research</i> , 2011, 236-238, 2118-2121.	0.3	0
110	Recent Advances in Numerical Solution of HJB Equations Arising in Option Pricing. <i>Lecture Notes in Computer Science</i> , 2015, , 104-116.	1.0	0
111	Robust Filtering for Markov Jump Systems by Randomized Algorithm Approach. , 2019, , .		0
112	Event-triggered $\hat{\mu}$ level H_{∞} probabilistic control of uncertain systems. <i>Journal of the Franklin Institute</i> , 2019, 356, 10564-10575.	1.9	0
113	The Fitted Finite Volume and Power Penalty Methods for Option Pricing. <i>SpringerBriefs in Applied Sciences and Technology</i> , 2020, , .	0.2	0
114	Fuzzy event-triggered disturbance rejection control of nonlinear systems. <i>Journal of Industrial and Management Optimization</i> , 2021, 17, 3297.	0.8	0
115	Solution method for discrete double obstacle problems based on a power penalty approach. <i>Journal of Industrial and Management Optimization</i> , 2020, .	0.8	0
116	European Options on One Asset. <i>SpringerBriefs in Applied Sciences and Technology</i> , 2020, , 1-33.	0.2	0
117	Options on One Asset Revisited. <i>SpringerBriefs in Applied Sciences and Technology</i> , 2020, , 85-94.	0.2	0
118	Numerical solution of an obstacle problem with interval coefficients. <i>Numerical Algebra, Control and Optimization</i> , 2020, 10, 23-38.	1.0	0
119	A Smoothing Method for Ramp Metering. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2022, 23, 13358-13371.	4.7	0