

# Zhen Wu

## List of Publications by Year in descending order

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105  
papers

1,950  
citations

331538

21  
h-index

289141

40  
g-index

106  
all docs

106  
docs citations

106  
times ranked

461  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fully Coupled Forward-Backward Stochastic Differential Equations and Applications to Optimal Control. <i>SIAM Journal on Control and Optimization</i> , 1999, 37, 825-843.	1.1	349
2	Maximum principle for the stochastic optimal control problem with delay and application. <i>Automatica</i> , 2010, 46, 1074-1080.	3.0	153
3	The Maximum Principles for Stochastic Recursive Optimal Control Problems Under Partial Information. <i>IEEE Transactions on Automatic Control</i> , 2009, 54, 1230-1242.	3.6	101
4	A general maximum principle for optimal control of forward-backward stochastic systems. <i>Automatica</i> , 2013, 49, 1473-1480.	3.0	89
5	On well-posedness of forward-backward SDEs: A unified approach. <i>Annals of Applied Probability</i> , 2015, 25, .	0.6	89
6	Maximum Principles for Forward-Backward Stochastic Control Systems with Correlated State and Observation Noises. <i>SIAM Journal on Control and Optimization</i> , 2013, 51, 491-524.	1.1	71
7	A Linear-Quadratic Optimal Control Problem of Forward-Backward Stochastic Differential Equations With Partial Information. <i>IEEE Transactions on Automatic Control</i> , 2015, 60, 2904-2916.	3.6	66
8	Kalman-Bucy filtering equations of forward and backward stochastic systems and applications to recursive optimal control problems. <i>Journal of Mathematical Analysis and Applications</i> , 2008, 342, 1280-1296.	0.5	58
9	Maximum principle for forward-backward stochastic control system with random jumps and applications to finance. <i>Journal of Systems Science and Complexity</i> , 2010, 23, 219-231.	1.6	51
10	A maximum principle for partially observed optimal control of forward-backward stochastic control systems. <i>Science China Information Sciences</i> , 2010, 53, 2205-2214.	2.7	46
11	Dynamic Programming Principle for One Kind of Stochastic Recursive Optimal Control Problem and Hamilton-Jacobi-Bellman Equation. <i>SIAM Journal on Control and Optimization</i> , 2008, 47, 2616-2641.	1.1	42
12	Backward Mean-Field Linear-Quadratic-Gaussian (LQG) Games: Full and Partial Information. <i>IEEE Transactions on Automatic Control</i> , 2016, 61, 3784-3796.	3.6	37
13	Stabilization Control for Linear Continuous-Time Mean-Field Systems. <i>IEEE Transactions on Automatic Control</i> , 2019, 64, 3461-3468.	3.6	32
14	Fully coupled FBSDE with Brownian motion and Poisson process in stopping time duration. <i>Journal of the Australian Mathematical Society</i> , 2003, 74, 249-266.	0.3	28
15	Stochastic Maximum Principle for Optimal Control Problems of Forward-Backward Systems Involving Impulse Controls. <i>IEEE Transactions on Automatic Control</i> , 2011, 56, 1401-1406.	3.6	28
16	Optimal premium policy of an insurance firm: Full and partial information. <i>Insurance: Mathematics and Economics</i> , 2010, 47, 208-215.	0.7	27
17	Continuous-time mean-variance portfolio selection with random horizon in an incomplete market. <i>Automatica</i> , 2016, 69, 176-180.	3.0	27
18	Maximum principle for optimal control problems of forward-backward regime-switching system and applications. <i>Systems and Control Letters</i> , 2012, 61, 911-917.	1.3	25

#	ARTICLE	IF	CITATIONS
19	Probabilistic interpretation for a system of quasilinear parabolic partial differential equation combined with algebra equations. <i>Stochastic Processes and Their Applications</i> , 2014, 124, 3921-3947.	0.4	25
20	An Introduction to Optimal Control of FBSDE with Incomplete Information. <i>SpringerBriefs in Mathematics</i> , 2018, , .	0.2	24
21	Stochastic differential equations and stochastic linear quadratic optimal control problem with $L^{\infty}$ processes. <i>Journal of Systems Science and Complexity</i> , 2009, 22, 122-136.	1.6	23
22	Delayed Stochastic Linear-Quadratic Control Problem and Related Applications. <i>Journal of Applied Mathematics</i> , 2012, 2012, 1-22.	0.4	23
23	Maximum Principle for Risk-Sensitive Stochastic Optimal Control Problem and Applications to Finance. <i>Stochastic Analysis and Applications</i> , 2012, 30, 997-1018.	0.9	22
24	A type of general forward-backward stochastic differential equations and applications. <i>Chinese Annals of Mathematics Series B</i> , 2011, 32, 279-292.	0.2	21
25	Indefinite stochastic linear-quadratic optimal control problems with random jumps and related stochastic Riccati equations. <i>Science China Mathematics</i> , 2018, 61, 563-576.	0.8	20
26	A simple model of corporate international investment under incomplete information and taxes. <i>Annals of Operations Research</i> , 2009, 165, 123-143.	2.6	19
27	Relationship Between MP and DPP for the Stochastic Optimal Control Problem of Jump Diffusions. <i>Applied Mathematics and Optimization</i> , 2011, 63, 151-189.	0.8	18
28	BDSDEs with locally monotone coefficients and Sobolev solutions for SPDEs. <i>Journal of Differential Equations</i> , 2011, 251, 759-784.	1.1	18
29	Maximum principle for optimal control of anticipated forward-backward stochastic differential delayed systems with regime switching. <i>Optimal Control Applications and Methods</i> , 2016, 37, 154-175.	1.3	16
30	Linear quadratic mean-field-game of backward stochastic differential systems. <i>Mathematical Control and Related Fields</i> , 2018, 8, 653-678.	0.6	16
31	BSDDEs with regime switching: Weak convergence and applications. <i>Journal of Mathematical Analysis and Applications</i> , 2013, 407, 97-111.	0.5	15
32	Connection between MP and DPP for Stochastic Recursive Optimal Control Problems: Viscosity Solution Framework in the General Case. <i>SIAM Journal on Control and Optimization</i> , 2017, 55, 3258-3294.	1.1	13
33	Linear-quadratic optimal control for time-delay stochastic system with recursive utility under full and partial information. <i>Automatica</i> , 2020, 121, 109169.	3.0	13
34	The Maximum Principle for Progressive Optimal Stochastic Control Problems with Random Jumps. <i>SIAM Journal on Control and Optimization</i> , 2020, 58, 2171-2187.	1.1	13
35	Maximum principle for discrete-time stochastic optimal control problem and stochastic game. <i>Mathematical Control and Related Fields</i> , 2022, 12, 475.	0.6	13
36	An Indefinite Stochastic Linear Quadratic Optimal Control Problem with Delay and Related Forward-Backward Stochastic Differential Equations. <i>Journal of Optimization Theory and Applications</i> , 2018, 179, 722-744.	0.8	12

#	ARTICLE	IF	CITATIONS
37	Linear-Quadratic Stackelberg Game for Mean-Field Backward Stochastic Differential System and Application. <i>Mathematical Problems in Engineering</i> , 2019, 2019, 1-17.	0.6	11
38	Mean-field linear-quadratic stochastic differential games. <i>Journal of Differential Equations</i> , 2021, 296, 299-334.	1.1	11
39	Finite-time control of linear singular systems subject to parametric uncertain and disturbances. , 0, , .		10
40	Optimal Switching under a Regime-Switching Model with Two-Time-Scale Markov Chains. <i>Multiscale Modeling and Simulation</i> , 2015, 13, 99-131.	0.6	10
41	Well-posedness of a class of two-point boundary value problems associated with ordinary differential equations. <i>Advances in Difference Equations</i> , 2018, 2018, .	3.5	10
42	Comparison theorems for forward backward SDEs. <i>Statistics and Probability Letters</i> , 2009, 79, 426-435.	0.4	9
43	Partially Observed Time-Inconsistency Recursive Optimization Problem and Application. <i>Journal of Optimization Theory and Applications</i> , 2014, 161, 664-687.	0.8	9
44	Sobolev Weak Solutions of the Hamilton–Jacobi–Bellman Equations. <i>SIAM Journal on Control and Optimization</i> , 2014, 52, 1499-1526.	1.1	9
45	Stochastic maximum principle for optimal control problems of forward-backward delay systems involving impulse controls. <i>Journal of Systems Science and Complexity</i> , 2017, 30, 280-306.	1.6	9
46	Partially observed time- $\epsilon$ -inconsistent stochastic linear- $\epsilon$ -quadratic control with random jumps. <i>Optimal Control Applications and Methods</i> , 2018, 39, 230-247.	1.3	9
47	Stochastic Optimal Control Problem in Advertising Model with Delay. <i>Journal of Systems Science and Complexity</i> , 2020, 33, 968-987.	1.6	9
48	A MODEL FOR MARKET CLOSURE AND INTERNATIONAL PORTFOLIO MANAGEMENT WITHIN INCOMPLETE INFORMATION. <i>International Journal of Theoretical and Applied Finance</i> , 2002, 05, 479-495.	0.2	8
49	Mean-Variance Hedging and Forward-Backward Stochastic Differential Filtering Equations. <i>Abstract and Applied Analysis</i> , 2011, 2011, 1-20.	0.3	8
50	Maximum principle for anticipated recursive stochastic optimal control problem with delay and Lévy processes. <i>Applied Mathematics</i> , 2014, 29, 67-85.	0.6	8
51	Backward-forward linear-quadratic mean-field games with major and minor agents. <i>Probability, Uncertainty and Quantitative Risk</i> , 2016, 1, .	0.5	8
52	Linear-quadratic partially observed forward-backward stochastic differential games and its application in finance. <i>Applied Mathematics and Computation</i> , 2018, 321, 577-592.	1.4	8
53	Linear-Quadratic Mixed Stackelberg-Nash Stochastic Differential Game with Major-Minor Agents. <i>Applied Mathematics and Optimization</i> , 2021, 84, 2445-2494.	0.8	8
54	The corporate optimal portfolio and consumption choice problem in the real project with borrowing rate higher than deposit rate. <i>Applied Mathematics and Computation</i> , 2006, 175, 1596-1608.	1.4	7

#	ARTICLE	IF	CITATIONS
55	The Maximum Principle for One Kind of Stochastic Optimization Problem and Application in Dynamic Measure of Risk. <i>Acta Mathematica Sinica, English Series</i> , 2007, 23, 2189-2204.	0.2	7
56	Nash equilibrium point for one kind of stochastic nonzero-sum game problem and BSDEs. <i>Comptes Rendus Mathematique</i> , 2009, 347, 959-964.	0.1	7
57	A comparison theorem and uniqueness theorem of backward doubly stochastic differential equations. <i>Acta Mathematicae Applicatae Sinica</i> , 2011, 27, 223-232.	0.4	7
58	Maximum principles for partially observed mean-field stochastic systems with application to financial engineering. , 2014, , .		7
59	Optimal switching under a hybrid diffusion model and applications to stock trading. <i>Automatica</i> , 2018, 94, 361-372.	3.0	7
60	Linear-quadratic mean-field game for stochastic large-population systems with jump diffusion. <i>IET Control Theory and Applications</i> , 2020, 14, 481-489.	1.2	7
61	A kind of optimal investment problem under inflation and uncertain time horizon. <i>Applied Mathematics and Computation</i> , 2020, 375, 125084.	1.4	7
62	Maximum principle for stochastic optimal control problem of forward-backward system with delay. , 2009, , .		6
63	Linear-quadratic non-zero sum differential game for mean-field stochastic systems with asymmetric information. <i>Journal of Mathematical Analysis and Applications</i> , 2021, 504, 125315.	0.5	6
64	Backward stochastic differential equations with Markov switching driven by Brownian motion and Poisson random measure. <i>Stochastics</i> , 2015, 87, 1-29.	0.6	5
65	Connection between MP and DPP for stochastic recursive optimal control problems: Viscosity solution framework in local case. , 2016, , .		5
66	Mean-variance portfolio selection with discontinuous prices and random horizon in an incomplete market. <i>Science China Information Sciences</i> , 2020, 63, 1.	2.7	5
67	Robust Stackelberg Differential Game With Model Uncertainty. <i>IEEE Transactions on Automatic Control</i> , 2022, 67, 3363-3380.	3.6	5
68	Maximum Principle for Stochastic Recursive Optimal Control Problems Involving Impulse Controls. <i>Abstract and Applied Analysis</i> , 2012, 2012, 1-16.	0.3	4
69	Stochastic Recursive Zero-Sum Differential Game and Mixed Zero-Sum Differential Game Problem. <i>Mathematical Problems in Engineering</i> , 2012, 2012, 1-15.	0.6	4
70	Partial information LQ optimal control of backward stochastic differential equations. , 2012, , .		4
71	Maximum Principle for Optimal Control Problems of Forward-Backward Regime-Switching Systems Involving Impulse Controls. <i>Mathematical Problems in Engineering</i> , 2015, 2015, 1-13.	0.6	4
72	Necessary and sufficient conditions for near-optimality of stochastic delay systems. <i>International Journal of Control</i> , 2018, 91, 1730-1744.	1.2	4

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73	An Application of Dynamic Programming Principle in Corporate International Optimal Investment and Consumption Choice Problem. <i>Mathematical Problems in Engineering</i> , 2010, 2010, 1-16.	0.6	3
74	Backward stochastic viability and related properties on Z for BSDEs with applications. <i>Journal of Systems Science and Complexity</i> , 2012, 25, 675-690.	1.6	3
75	Linear-quadratic optimal control problem of forward-backward stochastic system with delay. , 2017, , .		3
76	A sufficient stochastic maximum principle for a kind of recursive optimal control problem with obstacle constraint. <i>Systems and Control Letters</i> , 2018, 114, 27-30.	1.3	3
77	Stochastic Maximum Principle for Forward-Backward Regime Switching Jump Diffusion Systems and Applications to Finance. <i>Chinese Annals of Mathematics Series B</i> , 2018, 39, 773-790.	0.2	3
78	Backward Doubly Stochastic Differential Equations with Markov Chains and a Comparison Theorem. <i>Symmetry</i> , 2020, 12, 1953.	1.1	3
79	The Dynkin game with regime switching and applications to pricing game options. <i>Annals of Operations Research</i> , 2022, 313, 1159-1182.	2.6	3
80	A general maximum principle for partially observed mean-field stochastic system with random jumps in progressive structure. <i>Mathematical Control and Related Fields</i> , 2023, 13, 664-694.	0.6	3
81	Social optima in mean field linearâ€œquadraticâ€œGaussian models with control input constraint. <i>Systems and Control Letters</i> , 2022, 162, 105174.	1.3	3
82	The maximum principle for stochastic control problem with Markov chain in progressive structure. <i>Systems and Control Letters</i> , 2022, 166, 105303.	1.3	3
83	Quadratic reflected BSDEs and related obstacle problems for PDEs. <i>Communications in Statistics - Theory and Methods</i> , 2020, 49, 567-589.	0.6	2
84	Relationship between backward and forward linear-quadratic mean-field-game with terminal constraint and optimal asset allocation for insurers and pension funds. <i>International Journal of Control</i> , 2021, 94, 336-350.	1.2	2
85	Time-inconsistent linear-quadratic non-zero sum stochastic differential games with random jumps. <i>International Journal of Control</i> , 2022, 95, 1864-1874.	1.2	2
86	Convertible Bonds with Higher Loan Rate: Model, Valuation, and Optimal Strategy. <i>Abstract and Applied Analysis</i> , 2014, 2014, 1-9.	0.3	1
87	An indefinite stochastic linear quadratic optimal control problem for the FBSDE system with jumps. , 2015, , .		1
88	Classical and weak solutions of the partial differential equations associated with a class of two-point boundary value problems. <i>Boundary Value Problems</i> , 2018, 2018, .	0.3	1
89	Well-Posedness of Fully Coupled Linear Forward-Backward Stochastic Differential Equations. <i>Journal of Systems Science and Complexity</i> , 2019, 32, 789-802.	1.6	1
90	Probabilistic interpretation for Sobolev solutions of McKeanâ€œVlasov partial differential equations. <i>Statistics and Probability Letters</i> , 2019, 145, 273-283.	0.4	1

#	ARTICLE	IF	CITATIONS
91	Necessary and sufficient conditions of near-optimality in a regime-switching diffusion model. Optimal Control Applications and Methods, 2020, 41, 793-807.	1.3	1
92	Backward-forward linear-quadratic mean-field Stackelberg games. Advances in Difference Equations, 2021, 2021, .	3.5	1
93	Optimal Control of Fully Coupled FBSDE with Partial Information. SpringerBriefs in Mathematics, 2018, , 41-58.	0.2	1
94	An optimal pricing policy under a Markov chain model. Science China Mathematics, 2022, 65, 1065-1080.	0.8	1
95	One kind of corporate optimal investment problem: Inflation case. , 2009, , .		0
96	Pricing and hedging problem of foreign currency option with higher borrowing rate. Journal of Systems Science and Complexity, 2013, 26, 407-418.	1.6	0
97	Backward Stochastic $H_2$ Infinite Horizon Case. Mathematical Problems in Engineering, 2014, 2014, 1-8.	0.6	0
98	Maximum principle for optimal control problems of backward regime-switching systems involving impulse controls. , 2014, , .		0
99	Stochastic linear-quadratic optimal control problems with delay and Lévy processes. , 2016, , .		0
100	The connection between mean-field linear-quadratic-Gaussian games of forward and backward stochastic differential systems. , 2017, , .		0
101	Infinite horizon reflected backward stochastic differential equations with Markov chains. Communications in Statistics - Theory and Methods, 2018, 47, 3360-3376.	0.6	0
102	A kind of stochastic recursive Zero-Sum differential game problem with double obstacles constraint. Communications in Statistics - Theory and Methods, 2020, 49, 5356-5370.	0.6	0
103	Backward stochastic differential equations with Markov chains and associated PDEs. Journal of Differential Equations, 2021, 302, 854-894.	1.1	0
104	Near-optimal control problems for forward-backward regime-switching systems. ESAIM - Control, Optimisation and Calculus of Variations, 2020, 26, 94.	0.7	0
105	Maximum principle for partially observed stochastic recursive optimal control problems involving impulse controls. Optimal Control Applications and Methods, 0, , .	1.3	0