

RESEARCH OUTPUTS 2022 – 2023

Research book or monograph (author)

- 1 JIN,Bangti and **ZHOU,Zhi**, "Numerical treatment and analysis of time-fractional evolution equations". 2023. Springer Cham;214

Publication in refereed journal

- 2 **CUI,Jianbo**, DIECI,Luca and ZHOU,Haomin, "A Continuation Multiple Shooting Method for Wasserstein Geodesic Equation". SIAM Journal on Scientific Computing. 2022 Oct;44(5): p. A2918-A2943.
<https://doi.org/10.1137/21M142160X>
- 3 **YUAN,Yancheng**, XHANG,Tsung-Hui, **SUN,Defeng** and TOH,Kim-Chuan, "A Dimension Reduction Technique for Large-Scale Structured Sparse Optimization Problems with Application to Convex Clustering". SIAM Journal on Optimization. 2022 Sep;32(3): p. 2294 - 2318.
<https://doi.org/10.1137/21M1441080>
- 4 **QIAO,Zhonghua**, XU,Zhenli, YIN,Qian and ZHOU,Shenggao, "A Maxwell-Ampère Nernst-Planck Framework For Modeling Charge Dynamics". SIAM Journal on Applied Mathematics. 2023 Apr;83(2): p. 374-393.
<https://doi.org/10.1137/22M1477891>
- 5 **LOU,Yijun** and WANG,Feng Bin, "A Reaction-Diffusion Model with Spatially Inhomogeneous Delays". Journal of Dynamics and Differential Equations. 2023 Mar
<https://doi.org/10.1007/s10884-023-10254-6>
- 6 GUAN,Chonghu, **XU,Zuo Quan** and YI,Fahuai, "A Consumption-investment Model with State-dependent Lower Bound Constraint on Consumption". Journal of Mathematical Analysis and Applications. 2022 Dec;516(1): p. 1-25. 126511.
<https://doi.org/10.1016/j.jmaa.2022.126511>
- 7 ZHANG,Zhaorong, XU,Juanjuan and **LI,Xun**, "A Distributed Stochastic Approximation Algorithm for Stochastic LQ Control with Unknown Uncertainty". Automatica. 2023 May;151: p. 1-5. 110917.
<https://doi.org/10.1016/j.automatica.2023.110917>

- 8 GUAN,Chonghu, PENG,Jing# and **XU,Zuo Quan**, "A Free Boundary Problem Arising from a Multi-state Regime-switching Stock Trading Model". *Journal of Differential Equations*. 2022 Nov;337: p. 436-459.
<https://doi.org/10.1016/j.jde.2022.08.006>
- 9 HOU,Dianming and **QIAO,Zhonghua**, "A Linear Adaptive Second-order Backward Differentiation Formulation Scheme for the Phase Field Crystal Equation". *Numerical Methods for Partial Differential Equations*. 2023 May: p. 1-22.
<https://doi.org/10.1002/num.23041>
- 10 QU,Yuanke, **LEE,Chun Yin** and LAM,K. F., "A Novel Method to Monitor COVID-19 Fatality Rate in Real-time, a Key Metric to Guide Public Health Policy". *Scientific Reports*. 2022 Oct;12(1): p. 1-10. 18277.
<https://doi.org/10.1038/s41598-022-23138-4>
- 11 **DAI,Min**, JIANG,Yipeng, LIU,Hong and XU,Jing, "A Rational Theory for Disposition Effects". *Review of Economic Dynamics*. 2023 Jan;47: p. 131-157.
<https://doi.org/10.1016/j.red.2021.11.003>
- 12 QIU,Chong, **YANG,Xiaoqi** and ZHOU,Yuying, "A Rearrangement Minimization Problem Related to a Nonlinear Parametric Boundary Value Problem". *Journal of Mathematical Analysis and Applications*. 2022 Nov;515(1): p. 1-17. 126379.
<https://doi.org/10.1016/j.jmaa.2022.126379>
- 13 **LEE,Chun Yin**, **WONG,Kin Yau**, LAM,Kwok Fai and BANDYOPADHYAY,Dipankar, "A Semiparametric Joint Model for Cluster Size and Subunit-specific Interval-Censored Outcomes". *Biometrics*. 2022 Nov: p. 1-13.
<https://doi.org/10.1111/biom.13795>
- 14 YU,Yangyang#, LIU,Yuan#, ZHAO,Shi and **HE,Daihai**, "A Simple Model to Estimate the Transmissibility of the Beta, Delta, and Omicron Variants of SARS-COV-2 in South Africa". *Mathematical Biosciences and Engineering*. 2022 Jul;19(10): p. 10361-10373.
<https://doi.org/10.3934/mbe.2022485>
- 15 **DAI,Min**, KOU,Steven and YANG,Chen, "A Stochastic Representation for Nonlocal Parabolic PDEs with Applications". *Mathematics of Operations Research*. 2022 Aug;47(3): p. 1707-1730.
<https://doi.org/10.1287/moor.2020.1061>

- 16 WU,Shu-Lin, ZHOU,Tao and **ZHOU,Zhi**, "A Uniform Spectral Analysis for Preconditioned All-at-once System from First-order and Second-order Evolutionary Problems". SIAM Journal on Matrix Analysis and Applications. 2022 Aug;43(3): p. 1331-1353.
<https://doi.org/10.1137/21M145358X>
- 17 CHEN,Chuchu, **CUI,Jianbo**, HONG,Jialin and SHENG,Derui, "Accelerated Exponential Euler Scheme for Stochastic Heat Equation: Convergence rate of Densities". IMA Journal of Numerical Analysis. 2023 Mar;43(2): p. 1181-1220.
<https://doi.org/10.1093/imanum/drac011>
- 18 **WANG,Zhi An** and XU,Wen Bing, "Acceleration of Propagation in a Chemotaxis-growth System with Slowly Decaying Initial Data". Bulletin of the London Mathematical Society. 2023 Feb;55(1): p. 447-469.
<https://doi.org/10.1112/blms.12738>
- 19 LIU,Yanwen#, ZHAO,Shi, YANG,Lin, ALIAGA-LINARES,Lisette and **HE,Daihai**, "All-cause mortality during the COVID-19 pandemic in Peru". IJID Regions. 2022 Sep;5: p. 177-179.
<https://doi.org/10.1016/j.ijregi.2022.10.005>
- 20 HOU,Dianming and **QIAO,Zhonghua**, "An Implicit–Explicit Second-Order BDF Numerical Scheme with Variable Steps for Gradient Flows". Journal of Scientific Computing. 2023 Jan;94(2): p. 1-22. 39.
<https://doi.org/10.1007/s10915-022-02094-1>
- 21 DUAN,Beiping, **LI,Buyang** and YANG,Zongze, "An Energy Diminishing Arbitrary Lagrangian–Eulerian Finite Element Method for Two-phase Navier–Stokes Flow". Journal of Computational Physics. 2022 Jul;461: p. 1-17. 111215.
<https://doi.org/10.1016/j.jcp.2022.111215>
- 22 FENG,Xiaoyu, **QIAO,Zhonghua**, SUN,Shuyu and WANG,Xiuping, "An Energy-stable Smoothed Particle Hydrodynamics Discretization of the Navier-Stokes-Cahn-Hilliard Model for Incompressible Two-phase Flows". Journal of Computational Physics. 2023 Apr;479: p. 1-20. 111997.
<https://doi.org/10.1016/j.jcp.2023.111997>
- 23 CHEN,Xinfu, **DAI,Min**, JIANG,Wei and QIN,Cong, "Asymptotic Analysis of Long-term Investment with Two Illiquid and Correlated Assets". Mathematical Finance. 2022 Oct;32(4): p. 1133-1169.
<https://doi.org/10.1111/mafi.12360>

- 24 **JIANG,Binyan**, FAN,Yifan , YAN,Ting and ZHANG,Yuan, "Asymptotic Theory in Bipartite Graph Models with a Growing Number of Parameters". Canadian Journal of Statistics. 2022 Oct
<https://doi.org/10.1002/cjs.11735>
- 25 ZHANG,Zhengqi# and **ZHOU,Zhi**, "Backward Diffusion-wave Problem: Stability, Regularization, and Approximation". SIAM Journal of Scientific Computing. 2022 Oct;44(5): p. A3183-A3216.
<https://doi.org/10.1137/21M1447271>
- 26 ZHOU,Jun, XU,Xiaoguang, **YANG,Tong**, HE,Jingyu, CHAI,Jianwei, WONG,Lai Mun, FENG,Yuan Ping, YANG,Ming, SHEN,Lei and WANG,Shijie, "Biaxial strain induced multiple magnetic phase transitions in nonmagnetic transition metal halide monolayer". Journal of Materials Chemistry C. 2022 Sep;10(38): p. 14344-14349.
<https://doi.org/10.1039/d2tc03268f>
- 27 BO,Lijun, LI,Tongqing and **YU,Xiang**, "Centralized Systemic Risk Control in the Interbank System: Weak Formulation and Gamma-convergence". Stochastic Processes and their Applications. 2022 Aug;150: p. 622-654.
<https://doi.org/10.1016/j.spa.2022.05.005>
- 28 LINGHU,Jiajun, SONG,Tingting, **YANG,Tong**, ZHOU,Jun, LIM,Kimyong, SOW,Chornghaur, YANG,Ming, FENG,Yuanping and WANG,Xuezhi, "Computational prediction of stable semiconducting Zn-C binary compounds". Materials Science in Semiconductor Processing. 2023 Mar;155 107237.
<https://doi.org/10.1016/j.mssp.2022.107237>
- 29 JIN,Bangti, LU,Xiliang, QUAN,Qimeng and **ZHOU,Zhi**, "Convergence Rate Analysis of Galerkin Approximation of Inverse Potential Problem". Inverse Problems. 2022 Dec;39(1): p. 1-26. 015008.
<https://doi.org/10.1088/1361-6420/aca70e>
- 30 ZHANG,Lufang, WANG,Jinhua, LI,Chong and **YANG,Xiaoqi**, "Convergence Rate of the Relaxed CQ Algorithm under Hölderian Type Error Bound Property". Optimization. 2022 Dec: p. 1-17.
<https://doi.org/10.1080/02331934.2022.2154606>
- 31 HOU,Zhen, ZHOU,Rui#, YAO,Yunduo, MIN,Zhiwen, LU,Ziheng, ZHU,Ye, TARASCON,Jean Marie and ZHANG,Biao, "Correlation between Electrolyte Chemistry and Solid Electrolyte Interphase for Reversible Ca Metal Anodes". Angewandte Chemie - International Edition. 2022 Dec;61(50). e202214796.
<https://doi.org/10.1002/anie.202214796>

- 32 **CUI,Jianbo**, HONG,Jialin and SHENG,Derui, "Density Function of Numerical Solution of Splitting AVF Scheme for Stochastic Langevin Equation". *Mathematics of Computation*. 2022 Oct;91(337): p. 2283-2333.
<https://doi.org/10.1090/mcom/3752>
- 33 LI,Hongdan, **LI,Xun**, FU,Minyue and ZHANG,Huanshui, "Deterministic Optimal Control for Discrete-time Systems with Multiplicative Noises and Random Coefficients". *Automatica*. 2023 Apr;150: p. 1-7. 110852.
<https://doi.org/10.1016/j.automatica.2023.110852>
- 34 LIU,Jing#, WEI,Haozhen# and **HE,Daihai**, "Differences in Case-fatality-rate of Emerging SARS-CoV-2 Variants". *Public Health in Practice*. 2023 Jun;5: p. 1-4. 100350.
<https://doi.org/10.1016/j.puhip.2022.100350>
- 35 ZHAO,Yanji#, ZHAO,Shi, GUO,Zihao, YUAN,Ziyue, RAN,Jinjun, WU,Lan, YU,Lin, LI,Hujiaojiao, SHI,Yu and **HE,Daihai**, "Differences in the Superspreading Potentials of COVID-19 Across Contact Settings". *BMC Infectious Diseases*. 2022 Dec;22(1): p. 1-6. 936.
<https://doi.org/10.1186/s12879-022-07928-9>
- 36 SU,Wen, YIN,Guosheng, ZHANG,Jing and **ZHAO,Xingqiu**, "Divide and Conquer for Accelerated Failure Time Model with Massive Time-to-event Data". *Canadian Journal of Statistics*. 2023 Jun;51(2): p. 400-419.
<https://doi.org/10.1002/cjs.11725>
- 37 LI,Xiao, **QIAO,Zhonghua** and WANG,Cheng, "Double Stabilizations and Convergence Analysis of a Second-order Linear Numerical Scheme for the Nonlocal Cahn-Hilliard Equation". *Science China Mathematics*. 2023 Feb
<https://doi.org/10.1007/s11425-022-2036-8>
- 38 SUN,Shuqin and **PONG,Ting Kei**, "Doubly Iteratively Reweighted Algorithm for Constrained Compressed Sensing Models". *Computational Optimization and Applications*. 2023 Jun;85(2): p. 583-619.
<https://doi.org/10.1007/s10589-023-00468-1>
- 39 **JIANG,Binyan**, LIU,Cheng and TANG,Cheng Yong, "Dynamic Covariance Matrix Estimation and Portfolio Analysis with High-Frequency Data". *Journal of Financial Econometrics*. 2023 Feb: p. 1-31.
<https://doi.org/10.1093/jjfinec/nbad003>

- 40 GUAN,Chonghu, **XU,Zuo Quan** and ZHOU,Rui#, "Dynamic Optimal Reinsurance and Dividend Payout in Finite Time Horizon". *Mathematics of Operations Research*. 2023 Feb;48(1): p. 544-568.
<https://doi.org/10.1287/moor.2022.1276>
- 41 FISHER,Allison, XU,Hainan, **HE,Daihai** and WANG,Xueying, "Effects of Vaccination on Mitigating COVID-19 Outbreaks: a Conceptual Modeling Approach". *Mathematical Biosciences and Engineering*. 2023 Jan;20(3): p. 4816-4837.
<https://doi.org/10.3934/mbe.2023223>
- 42 PAN,Yu, TONG,Yifan, XUE,Shibei and **ZHANG,Guofeng**, "Efficient Depth Selection for the Implementation of Noisy Quantum Approximate Optimization Algorithm". *Journal of the Franklin Institute*. 2022 Dec;359(18): p. 11273-11287.
<https://doi.org/10.1016/j.jfranklin.2022.10.027>
- 43 **CHEN,Kexin**, PUN,Chi Seng and WONG,Hoi Ying, "Efficient Social Distancing during the COVID-19 Pandemic: Integrating Economic and Public Health Considerations". *European Journal of Operational Research*. 2023 Jan;304(1): p. 84-98.
<https://doi.org/10.1016/j.ejor.2021.11.012>
- 44 LINDSTROM,Scott B., LOURENÇO,Bruno F. and **PONG,Ting Kei**, "Error Bounds, Facial Residual Functions and Applications to the Exponential Cone". *Mathematical Programming*. 2022 Oct;200(1): p. 229-278.
<https://doi.org/10.1007/s10107-022-01883-8>
- 45 LIU,Yanwen#, ZHAO,Shi, RYU,Sukhyun, RAN,Jinjun, FAN,Junhua and **HE,Daihai**, "Estimating the Incubation Period of SARS-CoV-2 Omicron BA.1 Variant in Comparison with that during the Delta Variant Dominance in South Korea". *One Health*. 2022 Dec;15: p. 1-4. 100425.
<https://doi.org/10.1016/j.onehlt.2022.100425>
- 46 GUO,Zihao, ZHAO,Shi, SUN,Shengzhi, **HE,Daihai**, CHONG,Ka Chun and YEOH,Eng Kiong, "Estimation of the Serial Interval of Monkeypox during the Early Outbreak in 2022". *Journal of Medical Virology*. 2023 Jan;95(1): p. 1-6. e28248.
<https://doi.org/10.1002/jmv.28248>

- 47 **HE,Daihai**, ALI,Sheikh Taslim, FAN,Guihong, GAO,Daozhou, SONG,Haitao, LOU,Yijun, ZHAO,Shi, COWLING,Benjamin J. and STONE,Lewi, "Evaluation of Effectiveness of Global COVID-19 Vaccination Campaign". *Emerging Infectious Diseases*. 2022 Sep;28(9): p. 1873-1876.
<https://doi.org/10.3201/eid2809.212226>
- 48 DASSIOS,Angelos and **ZHANG,Junyi**, "Exact Simulation of Poisson-Dirichlet Distribution and Generalised Gamma Process". *Methodology and Computing in Applied Probability*. 2023 Jun;25(2): p. 1-21. 64.
<https://doi.org/10.1007/s11009-023-10040-3>
- 49 LI,Wenlong, DONG,Xue, **ZHANG,Guofeng** and WU,Re Bing, "Flying-qubit Control via a Three-level Atom with Tunable Waveguide Couplings". *Physical Review B*. 2022 Oct;106(13): p. 134305-1 - 134305-13. 134305.
<https://doi.org/10.1103/PhysRevB.106.134305>
- 50 JU,Lili, LI,Xiao and **QIAO,Zhonghua**, "Generalized SAV-exponential Integrator Schemes for Allen–Cahn Type Gradient Flows". *SIAM Journal on Numerical Analysis*. 2022 Aug;60(4): p. 1905–1931.
<https://doi.org/10.1137/21M1446496>
- 51 **QI,Houduo**, "Geometric Characterization of Maximum Diversification Return Portfolio via Rao's Quadratic Entropy". *SIAM Journal on Financial Mathematics*. 2023 May;14(2): p. 525-556.
<https://doi.org/10.1137/22M1492313>
- 52 LYU,Wenbin and **WANG,Zhi An**, "Global Boundedness and Asymptotics of a Class of Prey-taxis Models with Singular Response". *Mathematical Methods in the Applied Sciences*. 2023 Apr;46(6): p. 6705-6721.
<https://doi.org/10.1002/mma.8935>
- 53 JIN,Hai Yang, **WANG,Zhi An** and WU,Leyun, "Global Dynamics of a Three-species Spatial Food Chain Model". *Journal of Differential Equations*. 2022 Oct;333: p. 144-183.
<https://doi.org/10.1016/j.jde.2022.06.007>
- 54 SONG,Haitao, WANG,Ruifeng, LIU,Shengqiang, JIN,Zhen and **HE,Daihai**, "Global Stability and Optimal Control for a COVID-19 Model with Vaccination and Isolation Delays". *Results in Physics*. 2022 Nov;42: p. 1-13. 106011.
<https://doi.org/10.1016/j.rinp.2022.106011>

- 55 ZENG,Fanqin, GAO,Yu and XUE,Xiaoping, "Global Weak Solutions to the Generalized mCH Equation via Characteristics". *Discrete and Continuous Dynamical Systems - Series B*. 2022 Aug;27(8): p. 4317-4329.
<https://doi.org/10.3934/dcdsb.2021229>
- 56 YANG,Yang, WANG,Li Chun, YU,Xin Yang, ZHANG,Xiao Fei, YANG,Zhong Qing, ZHENG,Yang Zi, **JIANG,Bin Yan** and CHEN,Lei, "How Likely is Septic Shock to Develop in a Patient with Fournier's Gangrene? A Risk Prediction Model based on a 7-year Retrospective Study". *Gastroenterology Report*. 2022 Aug;10 goac038.
<https://doi.org/10.1093/gastro/goac038>
- 57 ZHANG,Zhengqi#, ZHANG,Zhidong and **ZHOU,Zhi**, "Identification of Potential in Diffusion Equations from Terminal Observation: Analysis and Discrete Approximation". *SIAM Journal on Numerical Analysis*. 2022 Oct;60(5): p. 2834-2865.
<https://doi.org/10.1137/21M1446708>
- 58 **YANG,Xiaoqi**, "Lagrange Duality Of Vector Variational Inequalities". *Journal of Applied and Numerical Optimization*. 2023 Apr;5(1): p. 149-161.
<https://doi.org/10.23952/jano.5.2023.1.10>
- 59 **DAI,Min**, DONG,Yuchao and JIA,Yanwei, "Learning Equilibrium Mean-variance Strategy". *Mathematical Finance*. 2023 Jun
<https://doi.org/10.1111/mafi.12402>
- 60 **DAI,Min**, KOU,Steven, SONER,Mete and YANG,Chen, "Leveraged Exchange-Traded Funds with Market Closure and Frictions". *Management Science*. 2023 Apr;69(4): p. 2517 - 2535.
<https://doi.org/10.1287/mnsc.2022.4407>
- 61 HU,Yaohua, LI,Chong, WANG,Jinhua, **YANG,Xiaoqi** and ZHU,Linglingzhi, "Linearized Proximal Algorithms with Adaptive Stepsizes for Convex Composite Optimization with Applications". *Applied Mathematics and Optimization*. 2023 Mar;87(3): p. 1-35. 52.
<https://doi.org/10.1007/s00245-022-09957-x>
- 62 LYU,Wenbin and **WANG,Zhi An**, "Logistic Damping Effect in Chemotaxis Models with Density-suppressed Motility". *Advances in Nonlinear Analysis*. 2023 Jan;12(1): p. 336-355.
<https://doi.org/10.1515/anona-2022-0263>

- 63 **WANG,Zhi An** and WU,Leyun, "Lotka-Volterra Diffusion-Advection Competition System With Dynamical Resources". *Discrete and Continuous Dynamical Systems - Series B*. 2023 Jun;28(6): p. 3322-3348.
<https://doi.org/10.3934/dcdsb.2022220>
- 64 **JIANG,Binyan**, LI Qian and **SUN Defeng**, "MARS: A Second-order Reduction Algorithm for High-dimensional Sparse Precision Matrices Estimation". *Journal of Machine Learning Research*. 2023 Apr;24: p. 1-44.
- 65 **LI,Buyang**, "Maximum-norm Stability of the Finite Element Method for the Neumann Problem in Nonconvex Polygons with Locally Refined Mesh". *Mathematics of Computation*. 2022 Jul;91(336): p. 1533–1585.
<https://doi.org/10.1090/mcom/3724>
- 66 **FU,Guanxing** and ZHOU,Chao, "Mean Field Portfolio Games". *Finance and Stochastics*. 2023 Jan;27(1): p. 189-231.
<https://doi.org/10.1007/s00780-022-00492-9>
- 67 XU,Hainan and **HE,Daihai**, "Modeling the Dynamics of a Ratio-Dependent Leslie–Gower Predator–Prey System with Strong Allee Effect". *International Journal of Bifurcation and Chaos*. 2022 Dec;32(16): p. 2250239-1 - 2250239-18.
2250239.
<https://doi.org/10.1142/S021812742250239X>
- 68 LIU,Changyu#, ZHAO,Xingqiu and **HUANG,Jian**, "New Tests for High-Dimensional Linear Regression Based on Random Projection". *Statistica Sinica*. 2023 Jan;33(1).
<https://doi.org/10.5705/ss.202020.0405>
- 69 **DAI,Min**, KOU,Steven, QIAN,Shuaijie and WAN,Xiangwei, "Nonconcave Utility Maximization with Portfolio Bounds". *Management Science*. 2022 Nov;68(11): p. 8368-8385.
<https://doi.org/10.1287/mnsc.2021.4228>
- 70 DU,Qiang and **ZHOU,Zhi**, "Nonlocal-in-time Dynamics and Crossover of Diffusive Regimes". *International Journal of Numerical Analysis and Modeling*. 2023 Mar;20(3): p. 353-370.
<https://doi.org/10.4208/ijnam2023-1014>
- 71 LIU,Li, SU,Wen, YIN,Guosheng, **ZHAO,Xingqiu** and ZHANG,Ying, "Nonparametric Inference for Reversed Mean Models with Panel Count Data". *Bernoulli*. 2022 Nov;28(4): p. 2968-2997.
<https://doi.org/10.3150/21-BEJ1444>

- 72 DONG,Zhiyuan, **ZHANG,Guofeng**, WU,Ai Guo and WU,Re Bing, "On the Dynamics of the Tavis-Cummings Model". IEEE Transactions on Automatic Control. 2023 Apr: p. 2048-2063.
<https://doi.org/10.1109/TAC.2022.3169582>
- 73 LI,Wen Long, **ZHANG,Guofeng** and WU,Re Bing, "On the Control of Flying Qubits". Automatica. 2022 Sep;143: p. 1-9. 110338.
<https://doi.org/10.1016/j.automat.2022.110338>
- 74 DONG,Zhiyuan, CUI,Wei and **ZHANG,Guofeng**, "On the Dynamics of a Quantum Coherent Feedback Network of Cavity-mediated Double Quantum Dot Qubits". Journal of the Franklin Institute. 2023 May;360(7): p. 4572-4596.
<https://doi.org/10.1016/j.jfranklin.2023.03.001>
- 75 SI,Kehan, XU,Zhenda, **YIU,Ka Fai Cedric** and **LI,Xun**, "Open-loop Solvability for Mean-field Stochastic Linear Quadratic Optimal Control Problems of Markov Regime-switching System". Journal of Industrial and Management Optimization. 2022 Jul;18(4): p. 2415-2433.
<https://doi.org/10.3934/jimo.2021074>
- 76 **CHEN,Kexin**, JEON,Junkee and WONG,Hoi Ying, "Optimal Retirement Under Partial Information". Mathematics of Operations Research. 2022 Aug;47(3): p. 1802-1832.
<https://doi.org/10.1287/moor.2021.1189>
- 77 **LI,Xun**, **YU,Xiang** and ZHANG,Qinyi#, "Optimal Consumption and Life Insurance under Shortfall Aversion and a Drawdown Constraint". Insurance: Mathematics and Economics. 2023 Jan;108: p. 25-45.
<https://doi.org/10.1016/j.insmatheco.2022.11.001>
- 78 HU,Ying, TANG,Shanjian and **XU,Zuoquan**, "Optimal Control of SDEs with Expected Path Constraints and Related Constrained FBSDEs". Probability, Uncertainty and Quantitative Risk. 2022 Dec;7(4): p. 365-384.
<https://doi.org/10.3934/puqr.2022020>
- 79 MI,Hui and **XU,Zuo Quan**, "Optimal Portfolio Selection with VaR and Portfolio Insurance Constraints under Rank-dependent Expected Utility Theory". Insurance: Mathematics and Economics. 2023 May;110: p. 82-105.
<https://doi.org/10.1016/j.insmatheco.2023.02.004>
- 80 ABU-ODAH,Hammada, SU,Jingjing, WANG,Mian, LIN,Sin Yi, BAYUO,Jonathan, MUSA,Saliyu Sabiu# and MOLASSIOTIS,Alex, "Palliative Care Landscape in the COVID-19 Era: Bibliometric Analysis of Global Research".

Healthcare (Switzerland). 2022 Jul;10(7). 1344.
<https://doi.org/10.3390/healthcare10071344>

- 81 NG,Hoi Min#, **JIANG,Binyan** and **WONG,Kin Yau**, "Penalized Estimation of a Class of Single-Index Varying-Coefficient Models for Integrative Genomic Analysis". *Biometrical Journal*. 2023 Jan;65(1). 2100139.
<https://doi.org/10.48550/arXiv.2011.00442>
- 82 TANG,De and **WANG,Zhi An**, "Population Dynamics with Resource-dependent Dispersal: Single- and Two-species Models". *Journal of Mathematical Biology*. 2023 Feb;86(2): p. 1-42. 23.
<https://doi.org/10.1007/s00285-022-01856-7>
- 83 **FU,Guanxing**, HORST,Ulrich and XIA,Xiaonyu, "Portfolio Liquidation Games with Self-exciting Order Flow". *Mathematical Finance*. 2022 Oct;32(4): p. 1020-1065.
<https://doi.org/10.1111/mafi.12359>
- 84 YUAN,Ziyue, MUSA,Saliyu Sabiu#, HSU,Shu Chien, CHEUNG,Clara Man and **HE,Daihai**, "Post pandemic fatigue: what are effective strategies?". *Scientific Reports*. 2022 Dec;12(1). 9706.
<https://doi.org/10.1038/s41598-022-13597-0>
- 85 BATTAGLIA,Luca, JEVNIKAR,Aleks, **WANG,Zhi An** and YANG,Wen, "Prescribing Gaussian Curvature on Surfaces with Conical Singularities and Geodesic Boundary". *Annali di Matematica Pura ed Applicata*. 2023 Jun;202(3): p. 1173-1185.
<https://doi.org/10.1007/s10231-022-01274-y>
- 86 **HE,Daihai**, COWLING,Benjamin J., ALI,Sheikh Taslim and STONE,Lewi, "Rapid Global Spread of Variants of Concern of SARS-CoV-2". *IJID Regions*. 2023 Jun;7: p. 63-65.
<https://doi.org/10.1016/j.ijregi.2022.12.005>
- 87 JIN,Bangti and **ZHOU,Zhi**, "Recovery of a Space-time-dependent Diffusion Coefficient in Subdiffusion: Stability, Approximation and Error Analysis". *IMA Journal of Numerical Analysis*. 2022 Sep: p. 2496–2531.
<https://doi.org/10.1093/imanum/drac051>

- 88 LIU,Yuan#, YU,Yangyang#, ZHAO,Yanji# and **HE,Daihai**, "Reduction in the Infection Fatality Rate of Omicron Variant Compared with Previous Variants in South Africa". *International Journal of Infectious Diseases*. 2022 Jul;120: p. 146-149.
<https://doi.org/10.1016/j.ijid.2022.04.029>
- 89 LIU,Yuan#, WANG,Kexin, YANG,Lin and **HE,Daihai**, "Regional heterogeneity of in-hospital mortality of COVID-19 in Brazil". *Infectious Disease Modelling*. 2022 Sep;7(3): p. 364-373.
<https://doi.org/10.1016/j.idm.2022.06.005>
- 90 **HE,Daihai**, LIN,Lixin, ARTZY-RANDRUP,Yael, DEMIRHAN,Haydar, COWLING,Benjamin J. and STONE,Lewi, "Resolving the Enigma of Iquitos and Manaus: A Modeling Analysis of Multiple COVID-19 Epidemic Waves in Two Amazonian Cities". *Proceedings of the National Academy of Sciences of the United States of America*. 2023 Mar;120(10): p. 1-9. e2211422120.
<https://doi.org/10.1073/pnas.2211422120>
- 91 CHEN,Boqiang#, ZHU,Zhizhou, LI,Qiong and **HE,Daihai**, "Resurgence of Different Influenza Types in China and the US in 2021". *Mathematical Biosciences and Engineering*. 2023 Feb;20(4): p. 6327-6333.
<https://doi.org/10.3934/mbe.2023273>
- 92 ZHANG,Yongle, LI,Guoyin, **PONG,Ting Kei** and XU,Shiqi, "Retraction-based First-order Feasible Methods for Difference-of-convex Programs with Smooth Inequality and Simple Geometric Constraints". *Advances in Computational Mathematics*. 2023 Feb;49(1): p. 1-40. 8.
<https://doi.org/10.1007/s10444-022-10002-2>
- 93 BO,Lijun, LIAO,Huafu and **YU,Xiang**, "Risk-sensitive Credit Portfolio Optimization under Partial Information and Contagion Risk". *Annals of Applied Probability*. 2022 Aug;32(4): p. 2355-2399.
<https://doi.org/10.1214/21-AAP1735>
- 94 YANG,Jiang, YUAN,Zhaoming# and **ZHOU,Zhi**, "Robust Convergence of Parareal Algorithms with Arbitrarily High-order Fine Propagators". *SIAM Transactions on Applied Mathematics*. 2023 Apr;4(3): p. 566-591.
<https://doi.org/10.4208/csiam-am.SO-2022-0025>
- 95 **WONG,Kin Yau**, ZHOU,Qingning and HU,Tao, "Semiparametric Regression Analysis of Doubly-censored Data with Applications to Incubation Period Estimation". *Lifetime Data Analysis*. 2022 Jul;29(1): p. 87-114.
<https://doi.org/10.1007/s10985-022-09567-3>

- 96 WANG,Xiangyu, XIA,Jianming, **XU,Zuo Quan** and YANG,Zhou, "Short Communication: Minimal Quantile Functions Subject to Stochastic Dominance Constraints". *SIAM Journal on Financial Mathematics.*;13(3): p. SC87-SC98.
<https://doi.org/10.1137/22M1488557>
- 97 HU,Xiangbin#, SU,Wen and **ZHAO,Xingqiu**, "Sieve Estimation of Semiparametric Accelerated Mean Models with Panel Count Data". *Electronic Journal of Statistics.* 2023 Apr;17(1): p. 1316-1343.
<https://doi.org/10.1214/23-EJS2128>
- 98 LI,Xin, HU,Yaohua, LI,Chong, **YANG,Xiaoqi** and JIANG,Tianzi, "Sparse Estimation via Lower-order Penalty Optimization Methods in High-dimensional Linear Regression". *Journal of Global Optimization.* 2023 Feb;85(2): p. 315-349.
<https://doi.org/10.1007/s10898-022-01220-5>
- 99 ZU,Chenchen, **YANG,Xiaoqi** and YU,Carisa Kwok Wai, "Sparse Minimax Portfolio and Sharpe Ratio Models". *Journal of Industrial and Management Optimization.* 2022 Nov;18(5): p. 3247-3262.
<https://doi.org/10.3934/jimo.2021111>
- 100 BAI,Zhenguo, **LOU,Yijun** and ZHAO,Xiao Qiang, "Spatial Dynamics of Species with Annually Synchronized Emergence of Adults". *Journal of Nonlinear Science.* 2022 Sep;32(6): p. 1-29. 78.
<https://doi.org/10.1007/s00332-022-09836-3>
- 101 ZHANG,Zhengqi# and **ZHOU,Zhi**, "Stability and numerical analysis of backward problem for subdiffusion with time-dependent coefficients". *Inverse Problems.* 2023 Jan;39(3): p. 1-31. 034001.
<https://doi.org/10.1088/1361-6420/acb007>
- 102 **LI,Xiao, QIAO,Zhonghua** and WANG,Cheng, "Stabilization Parameter Analysis of a Second-order Linear Numerical Scheme for the Nonlocal Cahn-Hilliard Equation". *IMA Journal of Numerical Analysis.* 2023 Feb;43(2): p. 1089-1114.
<https://doi.org/10.1093/imanum/drab109>
- 103 JU,Lili, **LI,Xiao** and **QIAO,Zhonghua**, "Stabilized Exponential-SAV Schemes Preserving Energy Dissipation Law and Maximum Bound Principle for The Allen–Cahn Type Equations". *Journal of Scientific Computing.* 2022 Aug;92(2): p. 1-34. 66.
<https://doi.org/10.1007/s10915-022-01921-9>

- 104 FANG,Hongyan, CHEN,Yuanyuan, CHEN,Ling, YANG,Wenzhi and **JIANG,Binyan**, "Standardized Dempster's Non-exact Test for High-dimensional Mean Vectors". *Stat.* 2022 Dec;11(1): p. 1-14. e466.
<https://doi.org/10.1002/sta4.466>
- 105 LI,Na, LI,Xun#, PENG,Jing# and **XU,Zuo Quan**, "Stochastic Linear Quadratic Optimal Control Problem: A Reinforcement Learning Method". *IEEE Transactions on Automatic Control.* 2022 Sep;67(9): p. 5009-5016.
<https://doi.org/10.1109/TAC.2022.3181248>
- 106 **CUI,Jianbo**, LIU,Shu and ZHOU,Haomin, "Stochastic Wasserstein Hamiltonian Flows". *Journal of Dynamics and Differential Equations.* 2023 Apr
<https://doi.org/10.1007/s10884-023-10264-4>
- 107 WEN,Jiaqiang, **LI,Xun**, XIONG,Jie and ZHANG,Xin, "Stochastic Linear-quadratic Optimal Control Problems with Random Coefficients and Markovian Regime Switching System". *SIAM Journal on Control and Optimization.* 2023 Apr;61(2): p. 949-979.
<https://doi.org/10.1137/22M1481415>
- 108 TANG,Hao and **WANG,Zhi An**, "Strong Solutions to a Nonlinear Stochastic Aggregation-diffusion Equation". *Communications in Contemporary Mathematics.* 2023 Jan 2250073.
<https://doi.org/10.1142/S0219199722500730>
- 109 **YANG,Tong**, YANG,Ke, ZHU,Tao, SONG,Ting Ting, BAO,Tian, ZHOU,Jun, WANG,Shi Jie, JIN,Yunjiang, CALLSEN,Martin and YANG,Ming, "Structural Reconstruction Modulated Physical Properties of Titanium Oxide at the Monolayer Limit". *Journal of Physical Chemistry C.* 2023 Mar;127(11): p. 5631-5639.
<https://doi.org/10.1021/acs.jpcc.3c00690>
- 110 **QIAO,Zhonghua**, XU,Zhenli, YIN,Qian and ZHOU,Shenggao, "Structure-preserving Numerical Method for Maxwell-Ampère Nernst-Planck Model". *Journal of Computational Physics.* 2023 Feb;475: p. 1-20. 111845.
<https://doi.org/10.1016/j.jcp.2022.111845>
- 111 YAO,Xiaoxin I., HAN,Lefei, SUN,Yangbo, **HE,Daihai**, ZHAO,Shi and RAN,Jinjun, "Temporal Variation of Excess Deaths from Diabetes during the COVID-19 Pandemic in the United States". *Journal of Infection and Public Health.* 2023 Apr;16(4): p. 483-489.
<https://doi.org/10.1016/j.jiph.2023.01.018>

- 112 LIU,Jingyuan, KWAN,Crystal, DENG,Jie# and HU,Yuxi, "The Mental Health Impact of the COVID-19 Pandemic on Older Adults in China: A Systematic Review". *International Journal of Environmental Research and Public Health*. 2022 Nov;19(21). 14362.
<https://doi.org/10.3390/ijerph192114362>
- 113 YU,Boyu, LI,Qiong, CHEN,Jing# and **HE,Daihai**, "The Impact of COVID-19 Vaccination Campaign in Hong Kong SAR China and Singapore". *Infectious Disease Modelling*. 2023 Mar;8(1): p. 101-106.
<https://doi.org/10.1016/j.idm.2022.12.004>
- 114 ZHAO,Shi, HU,Inchi, LOU,Jingzhi, CHONG,Marc K.C., CAO,Lirong, **HE,Daihai**, ZEE,Benny C.Y. and WANG,Maggie H., "The Mechanism Shaping the Logistic Growth of Mutation Proportion in Epidemics at Population Scale". *Infectious Disease Modelling*. 2023 Mar;8(1): p. 107-121.
<https://doi.org/10.1016/j.idm.2022.12.006>
- 115 MUSA,Saliyu Sabiu#, ABDULLAHI,Zainab Umar, ZHAO,Shi, BELLO,Umar Muhammad, HUSSAINI,Nafiu, HABIB,Abdulrazaq Garba and **HE,Daihai**, "Transmission Dynamics of Monkeypox Virus in Nigeria during the Current COVID-19 Pandemic and Estimation of Effective Reproduction Number". *Vaccines*. 2022 Dec;10(12): p. 1-9. 2153.
<https://doi.org/10.3390/vaccines10122153>
- 116 MUSA,Saliyu S.#, YUSUF,Abdullahi, ZHAO,Shi, ABDULLAHI,Zainab U., ABU-ODAH,Hammoda, SAAD,Farouk Tijjani, ADAMU,Lukman and **HE,Daihai**, "Transmission dynamics of COVID-19 pandemic with combined effects of relapse, reinfection and environmental contribution". *Results in Physics*. 2022 Jul;38 105653.
<https://doi.org/10.1016/j.rinp.2022.105653>
- 117 **ZHANG,Junyi** and DASSIOS,Angelos, "Truncated Poisson–Dirichlet approximation for Dirichlet process hierarchical models". *Statistics and Computing*. 2023 Feb;33(1): p. 1-20. 30.
<https://doi.org/10.1007/s11222-022-10201-3>
- 118 QIU,Haifa, **YANG,Tong**, ZHOU,Jun, YANG,Ke, YING,Yiran, DING,Keda, YANG,Ming and HUANG,Haitao, "Tunable hydrogen evolution activity by modulating polarization states of ferroelectric BaTiO₃". *Journal of Materials Chemistry A*. 2023 Feb;11(13): p. 7034-7042.
<https://doi.org/10.1039/d2ta07907k>

- 119 YU,Xinyang#, WANG,Cheng, YANG,Zhongqing# and **JIANG,Binyan**, "Tuning Selection for Two-scale Kernel Density Estimators". *Computational Statistics*. 2022 Nov;37(5): p. 2231-2247.
<https://doi.org/10.1007/s00180-022-01196-6>
- 120 **QIAO,Zhonghua** and ZHANG,Qian, "Two-Phase Image Segmentation by the Allen-Cahn Equation and a Nonlocal Edge Detection Operator". *Numerical Mathematics: Theory, Methods & Applications*. 2022 Nov;15(4): p. 1147-1172.
<https://doi.org/10.4208/nmtma.OA-2022-0008s>
- 121 WANG,Qiuping, YAN,Ting, **JIANG,Binyan** and LENG,Chenlei, "Two-mode Networks: Inference with as Many Parameters as Actors and Differential Privacy". *Journal of Machine Learning Research*. 2022 Oct;23: p. 1-38. 292.
- 122 MUSA,Saliyu S.#, YUSUF,Abdullahi, BAKARE,Emmanuel A., ABDULLAHI,Zainab U., ADAMU,Lukman, MUSTAPHA,Umar T. and **HE,Daihai**, "Unravelling the Dynamics of Lassa Fever Transmission with Differential Infectivity: Modeling Analysis and Control Strategies". *Mathematical Biosciences and Engineering*. 2022 Sep;19(12): p. 13114-13136.
<https://doi.org/10.3934/mbe.2022613>
- 123 DU,Mingyue, **ZHAO,Xingqiu** and SUN,Jianguo, "Variable Selection for Case-cohort Studies with Informatively Interval-censored Outcomes". *Computational Statistics and Data Analysis*. 2022 Aug;172: p. 1-17. 107484.
<https://doi.org/10.1016/j.csda.2022.107484>
- 124 **CUI,Jianbo**, LIU,Shu and ZHOU,Haomin, "Wasserstein Hamiltonian Flow With Common Noise On Graph". *SIAM Journal on Applied Mathematics*. 2023 Apr;83(2): p. 484-509.
<https://doi.org/10.1137/22M1490697>
- 125 **WANG,Zhi An**, YANG,Anita and ZHAO,Kun, "Wave propagation and stabilization in the Boussinesq–Burgers system". *Physica D: Nonlinear Phenomena*. 2023 May;447: p. 1-13. 133687.
<https://doi.org/10.1016/j.physd.2023.133687>
- 126 **CUI,Jianbo** and HONG,Jialin, "Wellposedness and regularity estimates for stochastic Cahn–Hilliard equation with unbounded noise diffusion". *Stochastics and Partial Differential Equations: Analysis and Computations*. 2022 Sep: p. 1-37.
<https://doi.org/10.1007/s40072-022-00272-8>
- 127 XU,Mingyu, **XU,Zuoquan** and ZHOU,Xunyu, "G-expectation of Distributions". *Probability, Uncertainty and Quantitative Risk*. 2022 Dec;7(4): p. 385-404.
<https://doi.org/10.3934/puqr.2022021>

Refereed conference paper

137 "ZHANG,An, ZHANG,Jingnan, WANG,Xiang, **YUAN,Yancheng** and CHUA,Tat-Seng, ""Invariant Collaborative Filtering to Popularity Distribution Shift"". 2023 Apr WWW '23: Proceedings of the ACM Web Conference 2023 Association for Computing Machinery (ACM): p. 1240–1251.

<https://doi.org/10.1145/3543507.3583461>"

Student (all levels) in the same Department and Cost Centre