# RESEARCH OUTPUTS 2018 – 2019

## Textbook (author)

1. CHAN,Raymond H., GUO,Yves ZY., LEE,Spike T. and **LI,XUN**, Financial Mathematics, Derivatives and Structured Products. 1st Ed, Springer Singapore, Singapore, 395pp (2019) ISBN 978-981-13-3695-9(print), 978-981-13-3696-6(electronic)

## Publication in refereed journal

2. **HUANG,Jian**, JIAO,Yuling, LIU,Yanyan and LU,Xiliang, "A Constructive Approach to L0 Penalized Regression". Journal of Machine Learning Research, Vol. 19, No. 10, pp.1-37 (Aug 2018) ISSN 1532-4435(print), 1533-7928(electronic) (http://www.jmlr.org/papers/v19/17-194.html)

3. GUO,Ruchi, LIN,Tao and **LIN,YANPING**, "A Fixed Mesh Method with Immersed Finite Elements for Solving Interface Inverse Problems". Journal of Scientific Computing, Vol. 79, No. 1, pp.148-175 (Apr 2019) ISSN 0885-7474(print), 1573-7691(electronic) (http://link.springer.com/10.1007/s10915-018-0847-y)

4. HE,Hongjin, LING,Chen#, **QI,L.Q.** and ZHOU,Guanglu, "A Globally and Quadratically Convergent Algorithm for Solving Multilinear Systems with M-tensors". Journal of Scientific Computing, Vol. 76, No. 3, pp.1718-1741 (Aug 2018) ISSN 0885-7474(print), 1573-7691(electronic) (https://link.springer.com/article/10.1007%2Fs10915-018-0689-7)

5. YANG,WEI , CAO,LULING, HUANG,YUNQING and **CUI,Jintao**, "A New a Posteriori Error Estimate for the Interior Penalty Discontinuous Galerkin Method". International Journal of Numerical Analysis & Modeling, Vol. 16, No. 2, pp.210-224 (Feb 2019) ISSN 1705-5105(print) (http://www.math.ualberta.ca/ijnam/Volume-16-2019/No-2-19/2019-02-03.pdf)

6. BRENNER,Susanne C., ÇEŞMELIOĞLU,Ayçıl, **CUI,Jintao** and SUNG,Li-Yeng, "A Nonconforming Finite Element Method for an Acoustic Fluid-Structure Interaction Problem". Computational Methods in Applied Mathematics, Vol. 18, No. 3, pp.383-406 (Jul 2018) ISSN 1609-4840(print), 1609-9389(electronic) (http://www.degruyter.com/view/j/cmam.2018.18.issue-3/cmam-2017-0050/cmam-2017-0050.xml)

7. YANG,Lei#, **PONG,Ting Kei** and **CHEN,XIAOJUN**, "A Nonmonotone Alternating Updating Method for a Class of Matrix Factorization Problems". SIAM Journal on Optimization, Vol. 28, No. 4, pp.3402-3430 (Dec 2018) ISSN 1052-6234(print), 1095-7189(electronic) (https://epubs.siam.org/doi/10.1137/17M1130113)

8    **CHEN,XIAOJUN**, KELLEY,C T, XU,Fengmin and **ZHANG,Zaikun**, "A Smoothing Direct Search Method for Monte Carlo-Based Bound Constrained Composite Nonsmooth Optimization". SIAM Journal on Scientific Computing, Vol. 40, No. 4, pp.2174-2199 (Jul 2018)    ISSN    1064-8275(print),    1095-7197(electronic) (https://doi.org/10.1137/17M1116714)

9    LI,Xudong, S**UN,Defeng** and TOH,Kim-Chuan, "A block symmetric Gauss–Seidel decomposition theorem for convex composite quadratic programming and its applications". Mathematical Programming, Vol. 175, No. 1-2, pp.395-418 (May 2019) ISSN 0025-5610(print), 1436-4646(electronic) (http://link.springer.com/10.1007/s10107-018-1247-7)

10   LIU,Wei, **CUI,Jintao** and XIN,Jie, "A block-centered finite difference method for an unsteady asymptotic coupled model in fractured media aquifer system". Journal of Computational and Applied Mathematics, Vol. 337, pp.319-340 (Aug 2018) ISSN 03770427(print) (https://linkinghub.elsevier.com/retrieve/pii/S0377042718300037)

11   LI,Shuwei, HU,Tao, **ZHAO,Xingqiu** and SUN,Jianguo, "A class of semiparametric transformation cure models for interval-censored failure time data". Computational Statistics & Data Analysis, Vol. 133, pp.153-165 (May 2019) ISSN 01679473(print) (https://linkinghub.elsevier.com/retrieve/pii/S0167947318302445)

12   SHI,Yue#, NG,Chi Tim, FENG,Zhiguo and **YIU,Ka Fai Cedric**, "A descent algorithm for constrained LAD-Lasso estimation with applications in portfolio selection". Journal of Applied Statistics, Vol. 46, No. 11, pp.1988-2009 (Feb 2019) ISSN 0266-4763(print), 1360-0532(electronic) (https://www.tandfonline.com/doi/full/10.1080/02664763.2019.1575952)

13   SHI,Yue#, FENG,Zhiguo and **YIU,Ka Fai Cedric**, "A descent method for least absolute deviation lasso problems". Optimization Letters, Vol. 13, No. 3, pp.543-559 (Apr 2019) ISSN 1862-4472(print), 1862-4480(electronic) (http://link.springer.com/10.1007/s11590-017-1157-2)

14   **JIANG,Binyan**, WANG,Xiangyu and LENG,Chenlei, "A direct approach for sparse quadratic discriminant analysis". Journal of Machine Learning Research, Vol. 19, No. 1, pp.1098-1134    (Sep    2018)    ISSN    1532-4435(print),    1533-7928(electronic) (http://www.jmlr.org/papers/volume19/17-285/17-285.pdf)

15   LIU,Wei, **CUI,Jintao** and WANG,Zhifeng, "A finite difference approximation of reduced coupled model for slightly compressible Forchheimer fractures in Karst aquifer system". Numerical Algorithms, pp.1-31 (Jun 2019) ISSN 1017-1398(print), 1572-9265(electronic) (http://link.springer.com/10.1007/s11075-019-00749-z)

16   MUSA,Salihu Sabiu#, ZHAO,Shi, CHAN,Hei-Shen, JIN,Zhen and **HE,Daihai**, "A mathematical model to study the 2014–2015 large-scale dengue epidemics in Kaohsiung and Tainan cities in Taiwan, China". Mathematical Biosciences and Engineering, Vol. 16, No. 5,    pp.3841-3863    (Apr    2019)    ISSN    1551-0018(print) (http://www.aimspress.com/article/10.3934/mbe.2019190)

17    WANG,Chao, SUN,Zhengjia and **CUI,Jintao**, "A new error analysis of a mixed finite element method for the quad-curl problem". Applied Mathematics and Computation, Vol. 349, pp.23-38 (May 2019) ISSN 00963003(print), 1873-5649(electronic) (https://linkinghub.elsevier.com/retrieve/pii/S0096300318310798)

18    ZHAO,Huadong, ZHANG,Ying, **ZHAO,Xingqiu** and YU,Zhangsheng, "A nonparametric regression model for panel count data analysis". Statistica Sinica, Vol. 29, No. 2, pp.809-826 (Apr 2019) ISSN 10170405(print) (http://www3.stat.sinica.edu.tw/statistica/J29N2/J29N213/J29N213.html)

19    YAN,Jia-An and **XU,ZUO QUAN**, "A note on the Monge-Kantorovich problem in the plane". Communications on Pure and Applied Analysis, Vol. 14, No. 2, pp.517-525 (Dec 2018) ISSN 1534-0392(print), 1553-5258(electronic) (http://www.aimsciences.org/journals/displayArticlesnew.jsp?paperID=10585)

20    LIU,Tianxiang, **PONG,Ting Kei** and TAKEDA,Akiko, "A refined convergence analysis of pDCAe with applications to simultaneous sparse recovery and outlier detection". Computational Optimization and Applications, Vol. 73, No. 1, pp.69-100 (May 2019) ISSN 0926-6003(print), 1573-2894(electronic) (http://link.springer.com/10.1007/s10589-019-00067-z)

21    HUANG,Yunqing, YANG,Wei, WANG,Hao and **CUI,Jintao**, "Adaptive operator splitting finite element method for Allen–Cahn equation". Numerical Methods for Partial Differential Equations, Vol. 35, No. 3, pp.1290-1300 (May 2019) ISSN 0749-159X(print), 1098-2426(electronic) (https://onlinelibrary.wiley.com/doi/abs/10.1002/num.22350)

22    ZHANG,Feipeng, **ZHAO,Xingqiu** and ZHOU,Yong, "An embedded estimating equation for the additive risk model with biased-sampling data". Science China Mathematics, Vol. 61, No. 8, pp.1495-1518 (Aug 2018) ISSN 1674-7283(print), 1869-1862(electronic) (http://link.springer.com/10.1007/s11425-017-9268-0)

23    GAO,Qing, **ZHANG,GUOFENG** and PETERSEN,Ian R., "An exponential quantum projection filter for open quantum systems". Automatica, Vol. 99, pp.59-68 (Jan 2019) ISSN 00051098(print) (https://linkinghub.elsevier.com/retrieve/pii/S0005109818304886)

24    CHEN,Zhongming, LIU,Jinjie#, **QI,L.Q.**, ZHENG,Quanshui and ZOU,Wennan, "An irreducible function basis of isotropic invariants of a third order three-dimensional symmetric tensor". Journal of Mathematical Physics, Vol. 59, No. 8, pp.81703 (Aug 2018) ISSN 0022-2488(print), 1089-7658(electronic) (https://aip.scitation.org/doi/full/10.1063/1.5028307)

25    CHEN,Gang, **CUI,Jintao** and XU,Liwei, "Analysis of a hybridizable discontinuous Galerkin method for the Maxwell operator". ESAIM: Mathematical Modelling and Numerical Analysis, Vol. 53, No. 1, pp.301-324 (Jan 2019) ISSN 0764-583X(print), 1290-3841(electronic) (https://www.esaim-m2an.org/10.1051/m2an/2019007)

26    CAI,Wentao, **LI,Buyang**, **LIN,YANPING** and SUN,Weiwei, "Analysis of fully discrete FEM for miscible displacement in porous media with Bear–Scheidegger diffusion tensor". Numerische Mathematik, Vol. 141, No. 4, pp.1009-1042 (Apr 2019) ISSN 0029-599X(print), 0945-3245(electronic) (http://link.springer.com/10.1007/s00211-019-01030-0)

27    GUO,Ruchi, LIN,Tao and **LIN,YANPING**, "Approximation capabilities of immersed finite element spaces for elasticity Interface problems". Numerical Methods for Partial Differential Equations, Vol. 35, No. 3, pp.1243-1268 (May 2019) ISSN 0749-159X(print), 1098-2426(electronic) (https://onlinelibrary.wiley.com/doi/abs/10.1002/num.22348)

28    GAO,Ming Jie and **YIU,Ka Fai Cedric**, "Asymptotic behaviors of semidefinite programming with a covariance perturbation". Optimization Letters, pp.1-19 (Oct 2018) ISSN 1862-4472(print), 1862-4480(electronic) (http://link.springer.com/10.1007/s11590-018-1346-7)

29    PENG,Hongyun, **WANG,ZHI-AN**, ZHAO,Kun and ZHU,Changjiang, "Boundary layers and stabilization of the singular Keller-Segel system". Kinetic & Related Models, Vol. 11, No. 5, pp.1085-1123 (Oct 2018) ISSN 1937-5077(print) (http://aimsciences.org//article/doi/10.3934/krm.2018042)

30    LI,Guoyin and **PONG,Ting Kei**, "Calculus of the Exponent of Kurdyka–Łojasiewicz Inequality and Its Applications to Linear Convergence of First-Order Methods". Foundations of Computational Mathematics, Vol. 18, No. 5, pp.1199-1232 (Oct 2018) ISSN 1615-3375(print), 1615-3383(electronic) (http://link.springer.com/10.1007/s10208-017-9366-8)

31    **CHEN,XIAOJUN**, TOINT,Ph L and WANG,Hong#, "Complexity of Partially Separable Convexly Constrained Optimization with Non-Lipschitzian Singularities". SIAM Journal on Optimization, Vol. 29, No. 1, pp.874-903 (Mar 2019) ISSN 1052-6234(print), 1095-7189(electronic) (https://epubs.siam.org/doi/10.1137/18M1166511)

32    LI,Lei, CHEN,Yannan, LI,Ming, WANG,Qingwen and **QI,L.Q.**, "Computing the Maximal Violation of Bell Inequalities for Multipartite Qubit via Partially Symmetric Tensor". International Journal of Theoretical Physics, Vol. 58, No. 4, pp.1161-1171 (Apr 2019) ISSN 0020-7748(print), 1572-9575(electronic) (https://link.springer.com/article/10.1007/s10773-019-04009-7)

33    ZHANG,Zhiwei, TANG,Linli, **LIU,CHUNLING** and BERGER,Vance W, "Conditional estimation and inference to address observed covariate imbalance in randomized clinical trials". Clinical Trials, Vol. 16, No. 2, pp.122-131 (Apr 2019) ISSN 1740-7745(print), 1740-7753(electronic) (https://journals.sagepub.com/doi/10.1177/1740774518813120)

34    LIU,Zhifan, **LIU,CHUNLING** and SUN,Zhihua, "Consistent model check of errors-in-variables varying-coefficient model with auxiliary variable". Journal of Statistical Planning and Inference, Vol. 198, pp.13-28 (Jan 2019) ISSN 0378-3758(print) (https://www.sciencedirect.com/science/article/pii/S0378375818300284?via%3Dihub)

35 **CHEN,XIAOJUN**, SHAPIRO,Alexander and SUN,hailin, "Convergence Analysis of Sample Average Approximation of Two-Stage Stochastic Generalized Equations". SIAM Journal on Optimization, Vol. 29, No. 1, pp.135-161 (Mar 2019) ISSN 1052-6234(print), 1095-7189(electronic) (https://epubs.siam.org/doi/10.1137/17M1162822, pp.135-161)

36 **CHEN,XIAOJUN** and KELLEY,C.T., "Convergence of the EDIIS Algorithm for Nonlinear Equations". SIAM Journal on Scientific Computing, Vol. 41, No. 1, pp.365-379 (Jan 2019) ISSN 1064-8275(print), 1095-7197(electronic) (https://epubs.siam.org/doi/10.1137/18M1171084)

37 LAU,Pan Shun, LI,Chi-Kwong, POON,Yiu-Tung and **SZE,NUNG-SING**, "Convexity and star-shapedness of matricial range". Journal of Functional Analysis, Vol. 275, No. 9, pp.2497-2515 (Nov 2018) ISSN 00221236(print) (https://linkinghub.elsevier.com/retrieve/pii/S0022123618301277)

38 KANG,Zhilin, **LI,XUN**, LI,Zhongfei and ZHU,Shushang, "Data-driven robust mean-CVaR portfolio selection under distribution ambiguity". Quantitative Finance, Vol. 19, No. 1, pp.105-121 (Jan 2019) ISSN 1469-7688(print), 1469-7696(electronic) (https://www.tandfonline.com/doi/full/10.1080/14697688.2018.1466057)

39 FENG,Zhi Guo, **YIU,Ka Fai Cedric** and WU,Soon Yi, "Design of Sparse Filters by a Discrete Filled Function Technique". Circuits, Systems, and Signal Processing, Vol. 37, No. 10, pp.4279-4294 (Oct 2018) ISSN 0278-081X(print), 1531-5878(electronic) (http://link.springer.com/10.1007/s00034-018-0758-z)

40 GRATTON,S., ROYER,C. W., VICENTE,L. N. and **ZHANG,Zaikun**, "Direct search based on probabilistic feasible descent for bound and linearly constrained problems". Computational Optimization and Applications, Vol. 72, No. 3, pp.525-559 (Apr 2019) ISSN 0926-6003(print), 1573-2894(electronic) (http://link.springer.com/10.1007/s10589-019-00062-4)

41 WANG,Yin-Ying, CUI,Chunfeng, **QI,L.Q.**, YAN,Hong and ZHAO,Xing-Ming, "DrPOCS: Drug Repositioning Based on Projection Onto Convex Sets". IEEE/ACM Transactions on Computational Biology and Bioinformatics, Vol. 16, No. 1, pp.154-162 (Jan 2019) ISSN 1545-5963(print), 1557-9964(electronic) (https://ieeexplore.ieee.org/document/8350090)

42 DUAN,Gaopeng, LI,Aming, MENG,Tao, **ZHANG,GUOFENG** and WANG,Long, "Energy cost for controlling complex networks with linear dynamics". Physical Review E, Vol. 99, No. 5, pp.1-12 (May 2019) ISSN 2470-0045(print), 2470-0053(electronic) (https://link.aps.org/doi/10.1103/PhysRevE.99.052305)

43 JU,Lili, LI,Xiao, **QIAO,ZHONGHUA** and ZHANG,Hui, "Energy stability and error estimates of exponential time differencing schemes for the epitaxial growth model without slope selection". Mathematics of Computation, Vol. 87, No. 312, pp.1859-1885 (Jul 2018) ISSN 0025-5718(print), 1088-6842(electronic) (https://www.ams.org/journals/mcom/2018-87-312/S0025-5718-2017-03262-2/)

44    LIU,Jingzhen, **YIU,Ka Fai Cedric** and BENSOUSSAN,Alain, "Ergodic control for a mean reverting inventory model". Journal of Industrial & Management Optimization, Vol. 14, No. 3, pp.857-876 (Jul 2018) ISSN 1547-5816(print), 1553-166X(electronic) (http://aimsciences.org//article/doi/10.3934/jimo.2017079)

45    ZHANG,Zhiwei, **LIU,CHUNLING**, MA,Shujie and ZHANG,Min, "Estimating Mann–Whitney-Type Causal Effects for Right-Censored Survival Outcomes". Journal of Causal Inference, Vol. 7, No. 1, pp.1-15 (Mar 2019) ISSN 2193-3685(electronic) (https://www.degruyter.com/view/j/jci.2019.7.issue-1/jci-2018-0010/jci-2018-0010.xml)

46    ZHANG,Zhiwei, MA,Shujie, SHEN,Changyu and **LIU,CHUNLING**, "Estimating Mann–Whitney-type Causal Effects". International Statistical Review, pp.1-16 (Jun 2019) ISSN 0306-7734(print),                                1751-5823(electronic) (https://onlinelibrary.wiley.com/doi/full/10.1111/insr.12326)

47    XING,Wanqiu,   WANG,Weiguang,   SHAO,Quanxi,   YONG,Bin,   **LIU,Catherine**, FENG,Xiaozhou and DONG,Qing, "Estimating monthly evapotranspiration by assimilating remotely sensed water storage data into the extended Budyko framework across different climatic regions". Journal of Hydrology, Vol. 567, pp.684-695 (Dec 2018) ISSN 0022-1694(print)
(https://www.sciencedirect.com/science/article/pii/S0022169418307753?via%3Dihub)

48    ZHANG,Zhiwei, HU,Zonghui and **LIU,CHUNLING**, "Estimating the Population Average Treatment Effect in Observational Studies with Choice-Based Sampling". The International Journal of Biostatistics, Vol. 15, No. 1, pp.1-29 (May 2019) ISSN 1557-4679(electronic) (https://www.degruyter.com/view/j/ijb.2019.15.issue-1/ijb-2018-0093/ijb-2018-0093.xml)

49    WANG,Xiaofeng, **ZHANG,GUOFENG** and KONG,Weijian, "Evolutionary dynamics of the prisoner's dilemma with expellers". Journal of Physics Communications, Vol. 3, No. 1, pp.1-26   (Jan   2019)   ISSN   2399-6528(electronic)   (http://stacks.iop.org/2399-6528/3/i=1/a=015011?key=crossref.2b6e208b13d2830e66a66a9eb989f1fb)

50    CHE,Maolin, **QI,L.Q.**, WEI,Yimin and **ZHANG,GUOFENG**, "Geometric measures of entanglement in multipartite pure states via complex-valued neural networks". Neurocomputing,   Vol.   313,   pp.25-38   (Nov   2018)   ISSN   09252312(print) (https://linkinghub.elsevier.com/retrieve/pii/S0925231218306799)

51    HUANG,Wei-pei, KWAN,Bowen P.Y., DING,Weiyang, MIN,Biao, CHEUNG,Ray C.C., **QI,L.Q.** and YAN,Hong, "High performance hardware architecture for singular spectrum analysis of Hankel tensors". Microprocessors and Microsystems, Vol. 64, pp.120-127 (Feb 2019)                                ISSN                                0141-9331(print) (https://www.sciencedirect.com/science/article/pii/S0141933118301595)

52    SHI,Yue#, LOW,Siow Yong and **YIU,Ka Fai Cedric**, "Hyper-parameterization of sparse reconstruction for speech enhancement". Applied Acoustics, Vol. 138, pp.72-79 (Sep 2018) ISSN 0003682X(print) (https://linkinghub.elsevier.com/retrieve/pii/S0003682X17309076)

53 CHEN,Yannan, HU,Shenglong, **QI,L.Q.** and ZOU,Wennan, "Irreducible function bases of isotropic invariants of a third order three-dimensional symmetric and traceless tensor". Frontiers of Mathematics in China, Vol. 14, No. 1, pp.1-16 (Feb 2019) ISSN 1673-3452(print), 1673-3576(electronic) (https://link.springer.com/article/10.1007/s11464-019-0748-x)

54 LIU,Jinjie#, DING,Weiyang, **QI,L.Q.** and ZOU,Wennan, "Isotropic polynomial invariants of Hall tensor". Applied Mathematics and Mechanics, Vol. 39, No. 12, pp.1845-1856 (Dec 2018) ISSN 0253-4827(print), 1573-2754(electronic) (https://link.springer.com/article/10.1007/s10483-018-2398-9)

55 YU,Peiran# and **PONG,Ting Kei**, "Iteratively reweighted $\ell$ 1 algorithms with extrapolation". Computational Optimization and Applications, Vol. 73, No. 2, pp.353-386 (Jun 2019) ISSN 0926-6003(print), 1573-2894(electronic) (http://link.springer.com/10.1007/s10589-019-00081-1)

56 DU,Kai, **HUANG,JIANHUI** and WU,Zhen, "Linear quadric mean-field-game of backward stochastic differential systems". Mathematical Control & Related Fields, Vol. 8, No. 3, pp.653-678 (Aug 2018) ISSN 2156-8472(print), 2156-8499(electronic) (http://aimsciences.org//article/doi/10.3934/mcrf.2018028)

57 HU,Ying, **HUANG,JIANHUI** and NIE,Tianyang, "Linear-Quadratic-Gaussian Mixed Mean-Field Games with Heterogeneous Input Constraints". SIAM Journal on Control and Optimization, Vol. 56, No. 4, pp.2835-2877 (Jul 2018) ISSN 0363-0129(print), 1095-7138(electronic) (https://epubs.siam.org/doi/10.1137/17M1151420)

58 **HUANG,JIANHUI** and LI,Na, "Linear–Quadratic Mean-Field Game for Stochastic Delayed Systems". IEEE Transactions on Automatic Control, Vol. 63, No. 8, pp.2722-2729 (Aug 2018) ISSN 0018-9286(print), 1558-2523(electronic) (https://ieeexplore.ieee.org/document/8270372/)

59 XIANG,Hua, **QI,L.Q.** and WEI,Yimin, "M-eigenvalues of Riemann curvature tensor". Communications in Mathematical Sciences, Vol. 16, No. 8, pp.2301-2315 (Dec 2018) ISSN 1539-6746(print)
(https://www.intlpress.com/site/pub/pages/journals/items/cms/content/vols/0016/0008/a010/index.html)

60 **QIAO,ZHONGHUA**, YANG,Xuguang and ZHANG,Yuze#, "Mass conservative lattice Boltzmann scheme for a three-dimensional diffuse interface model with Peng-Robinson equation of state". PHYSICAL REVIEW E, Vol. 98, No. 2, pp.23306 (Aug 2018) ISSN 2470-0045(print), 2470-0053(electronic) (https://journals.aps.org/pre/abstract/10.1103/PhysRevE.98.023306)

61 DU,Qiang, JU,Lili, LI,Xiao and **QIAO,ZHONGHUA**, "Maximum principle preserving exponential time differencing schemes for the nonlocal Allen-Cahn equation". SIAM Journal on Numerical Analysis, Vol. 57, No. 2, pp.875-898 (Apr 2019) ISSN 0036-1429(print), 1095-7170(electronic) (https://epubs.siam.org/doi/abs/10.1137/18M118236X)

62    NI,Yuan-Hua, **LI,XUN**, ZHANG,Ji-Feng and KRSTIC,Miroslav, "Mixed Equilibrium Solution of Time-Inconsistent Stochastic Linear-Quadratic Problem". SIAM Journal on Control and Optimization, Vol. 57, No. 1, pp.533-569 (Jan 2019) ISSN 0363-0129(print), 1095-7138(electronic) (https://epubs.siam.org/doi/10.1137/18M1177068)

63    **HE,Daihai**, WANG,Xueying, GAO,Daozhou and WANG,Jin, "Modeling the 2016–2017 Yemen cholera outbreak with the impact of limited medical resources". Journal of Theoretical Biology, Vol. 451, pp.80-85 (Aug 2018) ISSN 00225193(print) (https://linkinghub.elsevier.com/retrieve/pii/S002251931830225X)

64    **LOU,YIJUN**, LIU,Kaihui#, **HE,Daiha**i, GAO,Daozhou and RUAN,Shigui, "Modelling diapause in mosquito population growth". Journal of Mathematical Biology, Vol. 78, No. 7, pp.2259-2288 (Jun 2019) ISSN 0303-6812(print), 1432-1416(electronic) (http://link.springer.com/10.1007/s00285-019-01343-6)

65    ZHAO,Shi, **LOU,YIJUN**, CHIU,Alice P.Y. and **HE,Daihai**, "Modelling the skip-and-resurgence of Japanese encephalitis epidemics in Hong Kong". Journal of Theoretical Biology, Vol. 454, pp.1-10 (Oct 2018) ISSN 00225193(print) (https://linkinghub.elsevier.com/retrieve/pii/S002251931830256X)

66    BRENNER,Susanne C., **CUI,Jintao** and SUNG,Li-yeng, "Multigrid Methods Based on Hodge Decomposition for a Quad-Curl Problem". Computational Methods in Applied Mathematics, Vol. 19, No. 2, pp.215-232 (Apr 2019) ISSN 1609-4840(print), 1609-9389(electronic) (http://www.degruyter.com/view/j/cmam.2019.19.issue-2/cmam-2019-0011/cmam-2019-0011.xml)

67    SUN,Zhengjia, **CUI,Jintao**, GAO,Fuzheng and WANG,Chao, "Multigrid methods for a quad-curl problem based on C0 interior penalty method". Computers & Mathematics with Applications, Vol. 76, No. 9, pp.2192-2211 (Nov 2018) ISSN 08981221(print) (https://linkinghub.elsevier.com/retrieve/pii/S0898122118304395)

68    MA,Chupeng, CAO,Liqun and **LIN,YANPING**, "Multiscale Algorithms and Computations for the Time-Dependent Maxwell--Schrödinger System in Heterogeneous Nanostructures". SIAM Journal on Scientific Computing, Vol. 41, No. 2, pp.1091-1120 (Apr 2019) ISSN 1064-8275(print), 1095-7197(electronic) (https://epubs.siam.org/doi/10.1137/18M1169709, pp.1091-1120)

69    PENG,Hongyun and **WANG,ZHI-AN**, "Nonlinear stability of strong traveling waves for the singular Keller–Segel system with large perturbations". Journal of Differential Equations, Vol. 265, No. 6, pp.2577-2613 (Sep 2018) ISSN 00220396(print) (https://linkinghub.elsevier.com/retrieve/pii/S0022039618302407)

70    CHE,Maolin, BU,Changjiang, **QI,L.Q.** and WEI,Yimin, "Nonnegative tensor revisited: plane stochastic tensors". Linear and Multilinear Algebra, Vol. 67, No. 7, pp.1364-1391 (Jun 2019) ISSN 0308-1087(print), 1563-5139(electronic) (https://www.tandfonline.com/doi/full/10.1080/03081087.2018.1453469)

71  HUANG,Yunqing, CHEN,Meng, LI,Jichun and **LIN,YANPING**, "Numerical analysis of a leapfrog ADI–FDTD method for Maxwell's equations in lossy media". Computers & Mathematics with Applications, Vol. 76, No. 4, pp.938-956 (Aug 2018) ISSN 08981221(print) (https://linkinghub.elsevier.com/retrieve/pii/S0898122118303080)

72  JIN,Bangti, LAZAROV,Raytcho and **ZHOU,Zhi**, "Numerical methods for time-fractional evolution equations with nonsmooth data: A concise overview". Computer Methods in Applied Mechanics and Engineering, Vol. 346, pp.332-358 (Apr 2019) ISSN 00457825(print), 1879-2138(electronic) (https://linkinghub.elsevier.com/retrieve/pii/S0045782518306091)

73  LI,Huicong, PENG,Rui and **WANG,ZHI-AN**, "On a Diffusive Susceptible-Infected-Susceptible Epidemic Model with Mass Action Mechanism and Birth-Death Effect: Analysis, Simulations, and Comparison with Other Mechanisms". SIAM Journal on Applied Mathematics, Vol. 78, No. 4, pp.2129-2153 (Jul 2018) ISSN 0036-1399(print), 1095-712X(electronic) (https://epubs.siam.org/doi/10.1137/18M1167863)

74  **YIU,Ka Fai Cedric** and LOW,Siow Yong, "On a Real-Time Blind Signal Separation Noise Reduction System". International Journal of Reconfigurable Computing, Vol. 2018, pp.1-9 (Dec 2018) ISSN 1687-7195(print), 1687-7209(electronic) (https://www.hindawi.com/journals/ijrc/2018/3721756/)

75  YUEN,Tsz Pang#, WONG,Heung/H. and **YIU,Ka Fai Cedric**, "On constrained estimation of graphical time series models". Computational Statistics & Data Analysis, Vol. 124, pp.27-52 (Aug 2018) ISSN 01679473(print) (https://linkinghub.elsevier.com/retrieve/pii/S0167947318300288)

76  XU,Yi#, **QI,L.Q.** and SUN,Wenyu, "On semi-definiteness and minimal H-eigenvalue of a symmetric space tensor using nonnegative polynomial optimization techniques". Signal Processing: Image Communication, Vol. 73, pp.3-11 (Apr 2019) ISSN 0923-5965(print) (https://www.sciencedirect.com/science/article/pii/S092359651830688X)

77  PÉREZ,José-Luis, YAMAZAKI,Kazutoshi and **YU,Xiang**, "On the Bail-Out Optimal Dividend Problem". Journal of Optimization Theory and Applications, Vol. 179, No. 2, pp.553-568 (Nov 2018) ISSN 0022-3239(print), 1573-2878(electronic) (http://link.springer.com/10.1007/s10957-018-1340-3)

78  GAO,Mingjie, **YIU,Ka Fai Cedric** and NORDHOLM,Sven, "On the Sparse Beamformer Design". Sensors, Vol. 18, No. 10, pp.3536 (Oct 2018) ISSN 1424-8220(electronic) (http://www.mdpi.com/1424-8220/18/10/3536)

79  WANG,Cheng and **JIANG,Binyan**, "On the dimension effect of regularized linear discriminant analysis". Electronic Journal of Statistics, Vol. 12, No. 2, pp.2709-2742 (Sep 2018) ISSN 1935-7524(electronic) (https://projecteuclid.org/euclid.ejs/1536976838)

80      CHEN,Gang and **CUI,Jintao**, "On the error estimates of a hybridizable discontinuous Galerkin method for second-order elliptic problem with discontinuous coefficients". IMA Journal of Numerical Analysis, pp.1-24 (Feb 2019) ISSN 0272-4979(print), 1464-3642(electronic)                                (https://academic.oup.com/imajna/advance-article/doi/10.1093/imanum/drz003/5305590)

81      XU,Changqing, CHEN,Zhibing and **QI,L.Q.**, "On {0,1}-CP tensors and CP pseudographs". Linear Algebra and Its Applications, Vol. 557, pp.287-306 (Nov 2018) ISSN 0024-3795(print) (https://www.sciencedirect.com/science/article/pii/S0024379518303732)

82      **XU,ZUO QUAN**, ZHOU,Xun Yu and ZHUANG,Sheng Chao, "Optimal insurance under rank-dependent utility and incentive compatibility". Mathematical Finance, Vol. 29, No. 2, pp.659-692  (Apr   2019)   ISSN   09601627(print),   1467-9965(electronic) (http://doi.wiley.com/10.1111/mafi.12185)

83      BAYRAKTAR,Erhan and **YU,Xiang**, "Optimal investment with random endowments and transaction costs: duality theory and shadow prices". Mathematics and Financial Economics, Vol. 13, No. 2, pp.253-286 (Mar 2019) ISSN 1862-9679(print), 1862-9660(electronic) (http://link.springer.com/10.1007/s11579-018-0227-2)

84      WONG,Kar Hong, LEE,Yu Chung Eugene, **LEE,H.W.J.** and **CHAN,C.K.**, "Optimal production schedule in a single-supplier multi-manufacturer supply chain involving time delays in both levels". Journal of Industrial and Management Optimization, Vol. 14, No. 3, pp.877-894   (Jul   2018)   ISSN   1547-5816(print),   1553-166X(electronic) (https://aimsciences.org/article/doi/10.3934/jimo.2017080)

85      CHEN,Xiaoshan, **LI,XUN** and YI,Fahuai, "Optimal stopping investment with non-smooth utility over an infinite time horizon". Journal of Industrial and Management Optimization, Vol. 15, No. 1, pp.81-96 (Jan 2019) ISSN 1547-5816(print), 1553-166X(electronic) (http://aimsciences.org//article/doi/10.3934/jimo.2018033)

86      WONG,Eugene Y.C., **TAI,Allen H.** and ZHOU,Emma, "Optimising truckload operations in third-party logistics: A carbon footprint perspective in volatile supply chain". Transportation Research Part D: Transport and Environment, Vol. 63, pp.649-661 (Aug 2018) ISSN 13619209(print) (https://linkinghub.elsevier.com/retrieve/pii/S1361920917301190)

87      DING,Weiyang, LUO,Ziyan and **QI,L.Q.**, "P-tensors, P0-tensors, and their applications". Linear Algebra and Its Applications, Vol. 555, pp.336-354 (Oct 2018) ISSN 0024-3795(print) (https://www.sciencedirect.com/science/article/pii/S0024379518303124)

88      ZHAO,Shi, MUSA,Salihu Sabiu#, QIN,Jing and **HE,Daihai**, "Phase-shifting of the transmissibility of macrolide-sensitive and resistant Mycoplasma pneumoniae epidemics in Hong Kong, from 2015 to 2018". International Journal of Infectious Diseases, Vol. 81, pp.251-253     (Apr     2019)     ISSN     1201-9712(print) (https://www.sciencedirect.com/science/article/pii/S1201971219300943?via%3Dihub)

89    FRIEDLANDER,Michael P., MACÊDO,Ives and **PONG,Ting Kei**, "Polar Convolution". SIAM Journal on Optimization, Vol. 29, No. 2, pp.1366-1391 (May 2019) ISSN 1052-6234(print), 1095-7189(electronic) (https://epubs.siam.org/doi/10.1137/18M1209088)

90    SHI,Yue#, NG,Chi Tim and **YIU,Ka Fai Cedric**, "Portfolio selection based on asymmetric Laplace distribution, coherent risk measure, and expectation-maximization estimation". Quantitative Finance and Economics, Vol. 2, No. 4, pp.776-797 (Oct 2018) ISSN 2573-0134(electronic) (http://www.aimspress.com/article/10.3934/QFE.2018.4.776)

91    HUANG,Zheng-Hai and **QI,L.Q.**, "Positive definiteness of paired symmetric tensors and elasticity tensors". Journal of Computational and Applied Mathematics, Vol. 338, pp.22-43 (Aug 2018) ISSN 0377-0427(print) (https://www.sciencedirect.com/science/article/pii/S0377042718300542)

92    LI,Xudong, **SUN,Defeng** and TOH,Kim-Chuan, "QSDPNAL: a two-phase augmented Lagrangian method for convex quadratic semidefinite programming". Mathematical Programming Computation, Vol. 10, No. 4, pp.703-743 (Dec 2018) ISSN 1867-2949(print), 1867-2957(electronic) (http://link.springer.com/10.1007/s12532-018-0137-6)

93    DONG,Zhiyuan, **ZHANG,GUOFENG** and AMINI,Nina H., "Quantum filtering for a two-level atom driven by two counter-propagating photons". Quantum Information Processing, Vol. 18, No. 5, pp.1-27 (May 2019) ISSN 1570-0755(print), 1573-1332(electronic) (http://link.springer.com/10.1007/s11128-019-2258-x)

94    DU,Kai, **HUANG,JIANHUI** and WU,Zhen, "Relationship between backward and forward linear-quadratic mean-field-game with terminal constraint and optimal asset allocation for insurers and pension funds". International Journal of Control, pp.1-15 (Mar 2019) ISSN 0020-7179(print), 1366-5820(electronic) (https://www.tandfonline.com/doi/full/10.1080/00207179.2019.1590740)

95    WANG,Shi, NURDIN,Hendra I., **ZHANG,GUOFENG** and JAMES,Matthew R., "Representation and network synthesis for a class of mixed quantum–classical linear stochastic systems". Automatica, Vol. 96, pp.84-97 (Oct 2018) ISSN 00051098(print) (https://linkinghub.elsevier.com/retrieve/pii/S0005109818302954)

96    BO,Lijun, LIAO,Huafu and **YU,Xiang**, "Risk Sensitive Portfolio Optimization with Default Contagion and Regime-Switching". SIAM Journal on Control and Optimization, Vol. 57, No. 1, pp.366-401 (Jan 2019) ISSN 0363-0129(print), 1095-7138(electronic) (https://epubs.siam.org/doi/10.1137/18M1166274)

97    **WONG,Kin Yau**, ZENG,Donglin and LIN,D. Y., "Robust Score Tests With Missing Data in Genomics Studies". Journal of the American Statistical Association (Feb 2019) ISSN 0162-1459(print), 1537-274X(electronic) (https://www.tandfonline.com/doi/full/10.1080/01621459.2018.1514304) (On-line publication)

98    LIU,Chongyang, GONG,Zhaohua, **LEE,H.W.J.** and TEO,Kok Lay, "Robust bi-objective optimal control of 1,3-propanediol microbial batch production process". Journal of Process Control, Vol. 78, pp.170-182 (Jun 2019) ISSN 0959-1524(print) (https://www.sciencedirect.com/science/article/pii/S0959152418303706?via%3Dihub)

99    SHEN,Junshan, YU,Hanjun, YANG,Jin# and **LIU,CHUNLING**, "Semiparametric Bayesian analysis for longitudinal mixed effects models with non-normal AR(1) errors". Statistics and Computing, Vol. 29, No. 3, pp.571-583 (May 2019) ISSN 0960-3174(print), 1573-1375(electronic) (https://link.springer.com/article/10.1007%2Fs11222-018-9824-4)

100   LIN,Tao, **LIN,YANPING** and ZHUANG,Qiao, "Solving Interface Problems of the Helmholtz Equation by Immersed Finite Element Methods". Communications on Applied Mathematics and Computation, Vol. 1, No. 2, pp.187-206 (Jun 2019) ISSN 2096-6385(print), 2661-8893(electronic) (http://link.springer.com/10.1007/s42967-019-0002-2)

101   CHEN,Liang, **SUN,Defeng** and KIM-CHUAN,Toh, "Some problems on the Gauss-Seidel iteration method in degenerate cases". Journal on Numerical Methods and Computer Applications, Vol. 40, No. 2, pp.98-110 (Jun 2019) ISSN 1000-3266(print) (http://caod.oriprobe.com/articles/56508997/SOME_PROBLEMS_ON_THE_GAUSS_SEIDEL_ITERATION_METHOD.htm)

102   KANG,Liying, LIU,Lele, **QI,L.Q.** and YUAN,Xiying, "Spectral radii of two kinds of uniform hypergraphs". Applied Mathematics and Computation, Vol. 338, pp.661-668 (Dec 2018) ISSN 0096-3003(print) (https://www.sciencedirect.com/science/article/pii/S0096300318305034)

103   JIANG,Hao, CHING,Wai-Ki, **YIU,Ka Fai Cedric** and QIU,Yushan, "Stationary Mahalanobis kernel SVM for credit risk evaluation". Applied Soft Computing, Vol. 71, pp.407-417 (Oct 2018) ISSN 15684946(print) (https://linkinghub.elsevier.com/retrieve/pii/S1568494618303892)

104   CHE,Maolin, **QI,L.Q.** and WEI,Yimin, "Stochastic R0 Tensors to Stochastic Tensor Complementarity Problems". Optimization Letters, Vol. 13, No. 2, pp.261-279 (Mar 2019) ISSN 1862-4472(print), 1862-4480(electronic) (https://link.springer.com/article/10.1007/s11590-018-1362-7)

105   ZHAO,Shi, BAUCH,Chris T. and **HE,Daihai**, "Strategic decision making about travel during disease outbreaks: a game theoretical approach". Journal of The Royal Society Interface, Vol. 15, No. 146, pp.20180515 (Sep 2018) ISSN 1742-5689(print), 1742-5662(electronic) (https://royalsocietypublishing.org/doi/10.1098/rsif.2018.0515)

106   JIN,Bangti, **LI,Buyang** and **ZHOU,Zhi**, "Subdiffusion with a time-dependent coefficient: Analysis and numerical solution". Mathematics of Computation, Vol. 88, No. 319, pp.2157-2186 (Feb 2019) ISSN 0025-5718(print), 1088-6842(electronic) (http://www.ams.org/mcom/2019-88-319/S0025-5718-2019-03413-0/)

107   YANG,Xinsong, FENG,Yuming, **YIU,Ka Fai Cedric**, SONG,Qiang and ALSAADI,Fuad E., "Synchronization of coupled neural networks with infinite-time distributed delays via quantized intermittent pinning control". Nonlinear Dynamics, Vol. 94, No. 3, pp.2289-2303 (Nov 2018) ISSN 0924-090X(print), 1573-269X(electronic) (http://link.springer.com/10.1007/s11071-018-4449-x)

108   DU,Shouqiang, ZHANG,Liping, CHEN,Chiyu and **QI,L.Q.**, "Tensor absolute value equations". Science China Mathematics, Vol. 61, No. 9, pp.1695-1710 (Sep 2018) ISSN 1674-7283(print), 1869-1862(electronic) (https://link.springer.com/article/10.1007/s11425-017-9238-6)

109   LI,Li, ZHANG,Xinzhen#, HUANG,Zhenghai and **QI,L.Q.**, "Test of copositive tensors". Journal of Industrial and Management Optimization, Vol. 15, No. 2, pp.881-891 (Apr 2019) ISSN 1547-5816(print), 1553-166X(electronic) (https://aimsciences.org/article/doi/10.3934/jimo.2018075)

110   LAU,Pan Shun, LI,Chi-Kwong, POON,Yiu-Tung and **SZE,NUNG-SING**, "The generalized numerical range of a set of matrices". Linear Algebra and its Applications, Vol. 563, pp.24-46 (Feb 2019) ISSN 00243795(print) (https://linkinghub.elsevier.com/retrieve/pii/S0024379518304646)

111   WANG,Jun, **WANG,ZHI-AN** and YANG,Wen, "Uniqueness and convergence on equilibria of the Keller–Segel system with subcritical mass". Communications in Partial Differential Equations, Vol. 44, No. 7, pp.545-572 (Mar 2019) ISSN 0360-5302(print), 1532-4133(electronic)
(https://www.tandfonline.com/doi/full/10.1080/03605302.2019.1581804)

112   BIAN,Baojun, CHEN,Xinfu and **XU,ZUO QUAN**, "Utility Maximization Under Trading Constraints with Discontinuous Utility". SIAM Journal on Financial Mathematics, Vol. 10, No. 1, pp.243-260 (Jan 2019) ISSN 1945-497X(electronic) (https://epubs.siam.org/doi/10.1137/18M1174659)

## Refereed conference paper

113   YUAN,Yancheng, **SUN,Defeng** and KIM-CHUAN,Toh, "An Efficient Semismooth Newton based Algorithm for Convex Clustering". International Conference on Machine Learning, Stockholmsmässan, Stockholm Sweden, 10-15 July 2018, PMLR (Jul 2018)


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