

## 2020年发表论文

(1) SCI 收录的第一作者和通讯作者的 145 篇论文，按第一作者姓氏字母顺序排列：

1. Ai, Chengfei; Tan, Zhong and **Zhou, Jianfeng**, Global well-posedness and existence of uniform attractor for magnetohydrodynamic equations, *Mathematical Methods in the Applied Sciences* 43 (2020), no. 12, 7045-7069.
2. Cai, Yongyong and **Zhou, Shulin**, Zero extension for Poisson's equation, *Science China-Mathematics* 63 (2020), no. 4, 721-732.
3. **Chang, Kung-Ching**; Wang, Xuefeng and Wu, Xie, On the spectral theory of positive operators and PDE applications, *Discrete and Continuous Dynamical Systems* 40 (2020), no. 6, 3171-3200.
4. **Chen, Chong**; Wu, Changjing; Wu, Linjie; Wang, Xiaochen; **Deng, Minghua** and **Xi, Ruibin**, ScRMD: Imputation for single cell RNA-seq data via robust matrix decomposition, *Bioinformatics* 36 (2020), no. 10, 3156-3161.
5. Chen, Dongxiang; **Ren, Siqi**; **Wang, Yuxi** and **Zhang, Zhifei**, Global well-posedness of the 2-D magnetic prandtl model in the Prandtl-Hartmann regime, *Asymptotic Analysis* 120 (2020), no. 3-4, 373-393.
6. Chen, Jiyong; **Wang, Yanpeng** and Xia, Binzhou, Characterization of subgroup perfect codes in Cayley graphs, *Discrete Mathematics* 343 (2020), no. 5, Art. No. 111813.
7. **Chen, Li**; **Li, Ruo** and Yao, Chengbao, An approximate Riemann solver for fluid-solid interaction problems with MIE-gruneisen equations of state, *Communications in Computational Physics* 27 (2020), no. 3, 861-896.
8. **Chen, Liang**; He, Shun; Zhai, Yuyao and **Deng, Minghua**, Direct interaction network inference for compositional data via codaloss, *Journal of Bioinformatics and Computational Biology* 18 (2020), no. 6, Art. No. 2050037.
9. **Chen, Liang**; Wang, Weinan; Zhai, Yuyao and **Deng, Minghua**, Single-cell transcriptome data clustering via multinomial modeling and adaptive fuzzy  $K$ -means algorithm, *Frontiers in Genetics* 11 (2020), Art. No. 295.
10. **Chen, Liang**; Zhai, Yuyao; He, Qiuyan; Wang, Weinan and **Deng, Minghua**, Integrating deep supervised, self-supervised and unsupervised learning for single-cell RNA-seq clustering and annotation, *Genes* 11 (2020), no. 7., Art. No. 792.
11. **Chen, Mingjuan**; **Wang, Baoxiang**; Wang, Shuxia and Wong, M. W., On dissipative nonlinear evolutionary pseudo-differential equations, *Applied and Computational Harmonic Analysis* 48 (2020), no. 1, 182-217.
12. **Chen, Qi**; **Li, Te**; **Wei, Dongyi** and **Zhang, Zhifei**, Transition threshold for the 2-D couette flow in a finite channel, *Archive for Rational Mechanics and Analysis* 238 (2020), no. 1, 125-183.
13. Chen, Tianyao; **Cheng, Xue** and **Yang, Jingping**, Decomposing correlated random walks on common and counter movements, *Statistics & Probability Letters* 158 (2020), Art. No. 108616.
14. **Chen, Ziang**; Li, Yingzhou and Lu, Jianfeng, Tensor ring decomposition: Optimization landscape and one-loop convergence of alternating least squares, *SIAM Journal on Matrix Analysis and Applications* 41 (2020), no. 3, 1416-1442.
15. Cheng, Jing and **Ai, Mingyao**, Optimal designs for panel data linear regressions, *Statistics & Probability Letters* 163 (2020), Art. No. 108769.
16. Chi, Weilai and **Deng, Minghua**, Sparsity-penalized stacked denoising autoencoders for imputing single-cell RNA-seq data, *Genes* 11 (2020), no. 5., Art. No. 532.
17. **Chu, Jianchun**, The parabolic Monge-Ampere equation on compact almost Hermitian manifolds, *Journal Fur Die Reine Und Angewandte Mathematik* 761 (2020), 1-24.
18. Deng, Yuxing and **Zhu, Xiaohua**, Rigidity of kappa-noncollapsed steady Kahler-Ricci solitons,

Mathematische Annalen 377 (2020), no. 1-2, 847-861.

19. **Ding, Fan**; Li, Youlin and Wu, Zhongtao, Contact (+1)-surgeries along legendrian two-component links, Quantum Topology 11 (2020), no. 2, 295-321.
20. **Ding, Mengyao**; Wang, Wei; **Zhou, Shulin** and Zheng, Sining, Asymptotic stability in a fully parabolic quasilinear chemotaxis model with general logistic source and signal production, Journal of Differential Equations 268 (2020), no. 11, 6729-6777.
21. **Ding, Mengyao**; Zhang, Chao and **Zhou, Shulin**, On optimal  $C^{1,\alpha}$  estimates for  $p(x)$ -Laplace type equations, Nonlinear Analysis-Theory Methods & Applications 200 (2020), Art. No. 112030.
22. **Ding, Mengyao**; Zhang, Chao and **Zhou, Shulin**, Global boundedness and Holder regularity of solutions to general  $p(x, t)$ -Laplace parabolic equations, Mathematical Methods in the Applied Sciences 43 (2020), no. 9, 5809-5831.
23. Dong, Qiannan; Wu, Jiming and **Su, Shuai**, Relationship between the vertex-centered linearity-preserving scheme and the lowest-order virtual element method for diffusion problems on star-shaped polygons, Computers & Mathematics with Applications 79 (2020), no. 11, 3117-3138.
24. **Du, Yucong**, The inductive blockwise alperin weight condition for  $\mathrm{PSL}(3,4)$ , Communications in Algebra 49 (2020), no. 1, 292-300.
25. **Duan, Junming** and **Tang, Huazhong**, High-order accurate entropy stable finite difference schemes for one- and two-dimensional special relativistic hydrodynamics, Advances in Applied Mathematics and Mechanics 12 (2020), no. 1, 1-29.
26. **Duan, Junming** and **Tang, Huazhong**, An efficient ADER discontinuous Galerkin scheme for directly solving Hamilton-Jacobi equation, Journal of Computational Mathematics 38 (2020), no. 1, 58-83.
27. Fan, Yuwei and **Koellermeier, Julian**, Accelerating the convergence of the moment method for the Boltzmann equation using filters, Journal of Scientific Computing 84 (2020), no. 1, Art. No. 1.
28. Fan, Yuwei; **Li, Ruo** and Zheng, Lingchao, A nonlinear moment model for radiative transfer equation in slab geometry, Journal of Computational Physics 404 (2020), Art. No. 109128.
29. Fan, Yifan; **Zhang, Huiming** and Yan, Ting, Asymptotic theory for differentially private generalized beta-models with parameters increasing, Statistics and Its Interface 13 (2020), no. 3, 385-398.
30. **Fang, Jun**; **Jiang, Fan**; **Liu, Yong** and **Yang, Jingping**, Copula-based Markov process, Insurance Mathematics & Economics 91 (2020), 166-187.
31. **Feng, Ke**; Lin, Aijin and Zhang, Xiaoxiao, Combinatorial  $p$ -th Calabi flows for discrete conformal factors on surfaces, Journal of Geometric Analysis 30 (2020), no. 4, 3979-3994.
32. **Feng, Rongquan** and **Zhang, Wenqian**, The edge-connectivity of strongly 3-walk-regular graphs, Graphs and Combinatorics 36 (2020), no. 1, 115-124.
33. **Gan, Shaobo** and **Shi, Yi**, Rigidity of center Lyapunov exponents and  $SU$ -integrability, Commentarii Mathematici Helvetici 95 (2020), no. 3, 569-592.
34. **Guan, Qi'an**, A remark on the extension of  $L^2$  holomorphic functions, International Journal of Mathematics 31 (2020), no. 2, Art. No. 2050017.
35. **Guan, Qi'an**, Decreasing equisingular approximations with analytic singularities, Journal of Geometric Analysis 30 (2020), no. 1, 484-492.
36. **Guan, Qi'an**; Zhou, Xiangyu, Restriction formula and subadditivity property related to multiplier ideal sheaves, Journal Fur Die Reine Und Angewandte Mathematik 769 (2020), 1-33.
37. Guo, Zhaozhong; Shi, Liucheng and **Xu, Maozhi**, Secrand: A secure distributed randomness generation protocol with high practicality and scalability, IEEE Access 8 (2020), 203917-203929.
38. **Hamid, M.**; Foong, Oi Mean; Usman, Muhammad; Khan, Ilyas and **Wang, Wei**, A new operational matrices-based spectral method for multi-order fractional problems, Symmetry-Basel 12 (2020), no. 9, Art. No. 1471.

39. **Hamid, M.**; Usman, M.; Haq, R. U. and **Wang, W.**, A Chelyshkov polynomial based algorithm to analyze the transport dynamics and anomalous diffusion in fractional model, *Physica A-Statistical Mechanics and Its Applications* 551 (2020), Art. No. 124227.
40. **He, Juncai**; Li, Lin; Xu, Jinchao and Zheng, Chunyue, Relu deep neural networks and linear finite elements, *Journal of Computational Mathematics* 38 (2020), no. 3, 502-527.
41. Hou, Lei; Xu, Mingqing; **Li, Hongkai**; et al., Exploring the causal pathway from ischemic stroke to atrial fibrillation: A network mendelian randomization study, *Molecular Medicine* 26 (2020), no. 1, Art. No. 7.
42. **Hu, Jun** and Ma, Limin, Asymptotically exact a posteriori error estimates of eigenvalues by the crouzeix-raviart element and enriched Crouzeix-Raviart element, *SIAM Journal on Scientific Computing* 42 (2020), no. 2, A797-A821.
43. **Hu, Jun**; Tian, Shudan and Zhang, Shangyou, A family of 3D  $H^2$ -nonconforming tetrahedral finite elements for the biharmonic equation, *Science China-Mathematics* 63 (2020), no. 8, 1505-1522.
44. **Hu, Jun** and Zhang, Shangyou, An error analysis method SPP-beam and a construction guideline of nonconforming finite elements for fourth order elliptic problems, *Journal of Computational Mathematics* 38 (2020), no. 1, 195-222.
45. **Huang, Chendi**; **Sun, Xinwei**; **Xiong, Jiechao** and **Yao, Yuan**, Boosting with structural sparsity: A differential inclusion approach, *Applied and Computational Harmonic Analysis* 48 (2020), no. 1, 1-45.
46. Huang, Jizu; **Yang, Chao**; Wei, Ying, Parallel energy-stable solver for a coupled Allen-Cahn and Cahn-Hilliard system, *SIAM Journal on Scientific Computing* 42 (2020), no. 5, C294-C312.
47. **Huang, Weijie**; Ma, Weijun; Wei, Liang and **Li, Zhiping**, High-order dual-parametric finite element methods for cavitation computation in nonlinear elasticity, *Numerical Methods for Partial Differential Equations* 36 (2020), no. 5, 1012-1027.
48. **Huang, Yimin**; Kong, Xiangshun and **Ai, Mingyao**, Optimal designs in sparse linear models, *Metrika* 83 (2020), no. 2, 255-273.
49. **Iqbal, Imran**; Mustafa, Ghulam and **Ma, Jinwen**, Deep learning-based morphological classification of human sperm heads, *Diagnostics* 10 (2020), no. 5, Art. No. 325.
50. **Iqbal, Imran**; Shahzad, Ghazala; **Ma, Jinwen**; et al., Deep learning-based automated detection of human knee joint's synovial fluid from magnetic resonance images with transfer learning, *IET Image Processing* 14 (2020), no. 10, 1990-1998.
51. **Jian, Wangjian**, Convergence of scalar curvature of Kahler-Ricci flow on manifolds of positive Kodaira dimension, *Advances in Mathematics* 371 (2020), Art. No. 107253.
52. Jiang, Lijuan; **Yang, Chao** and Ma, Wenjing, Enabling highly efficient batched matrix multiplications on SW26010 many-core processor, *ACM Transactions on Architecture and Code Optimization* 17 (2020), no. 1, Art. No. 3.
53. **Jin, Zhongyu** and Li, Jiangtao, Motivic multiple zeta values relative to  $MU(2)$ , *Algebra & Number Theory* 14 (2020), no. 10, 2685-2712.
54. Khan, Zafar H.; Khan, Waqar A.; Haq, R. U.; Usman, M. and **Hamid, M.**, Effects of volume fraction on water-based carbon nanotubes flow in a right-angle trapezoidal cavity: Fem based analysis, *International Communications in Heat and Mass Transfer* 116 (2020), Art. No. 104640.
55. **Koellermeier, Julian** and Fan, Yuwei, Diagram notation for the derivation of hyperbolic moment systems, *Communications in Mathematical Sciences* 18 (2020), no. 4, 1149-1177.
56. **Koellermeier, Julian** and Rominger, Marvin, Analysis and numerical simulation of hyperbolic shallow water moment equations, *Communications in Computational Physics* 28 (2020), no. 3, 1038-1084.
57. **Koellermeier, Julian** and Scholz, Ullika, Spline moment models for the one-dimensional Boltzmann-Bhatnagar-Gross-Krook equation, *Physics of Fluids* 32 (2020), no. 10, Art. No. 102009.
58. Li, Bo; **Zhang, Huiming** and He, Jiao, Some characterizations and properties of COM-Poisson random

- variables, *Communications in Statistics-Theory and Methods* 49 (2020), no. 6, 1311-1329.
59. **Li, Chang** and Shen, Liangming, The complex Hessian equations with gradient terms on Hermitian manifolds, *Journal of Differential Equations* 269 (2020), no. 7, 6293-6310.
  60. **Li, Hongkai; Miao, Wang; Geng, Zhi;** et al., Causal data fusion methods using summary-level statistics for a continuous outcome, *Statistics in Medicine* 39 (2020), no. 8, 1054-1067.
  61. **Li, Qiuqi** and **Zhang, Pingwen**, A variable-separation method for nonlinear partial differential equations with random inputs, *SIAM Journal on Scientific Computing* 42 (2020), no. 2, A723-A750.
  62. **Li, Ruo** and Li, Weiming, 3D B-2 model for radiative transfer equation, *International Journal of Numerical Analysis and Modeling* 17 (2020), no. 1, 118-150.
  63. **Li, Ruo;** Li, Weiming and Zheng, Lingchao, A nonlinear three-moment model for radiative transfer in spherical symmetry, *Mathematics and Computers in Simulation* 170 (2020), 285-299.
  64. **Li, Ruo;** Wang, Yanli and Wang, Yixuan, Approximation to singular quadratic collision model in Fokker-Planck-Landau equation, *SIAM Journal on Scientific Computing* 42 (2020), no. 3, B792-B815.
  65. **Li, Ruo** and Yang, Fanyi, A least squares method for linear elasticity using a patch reconstructed space, *Computer Methods in Applied Mechanics and Engineering* 363 (2020), Art. No. 112902.
  66. **Li, Ruo** and Yang, Fanyi, A discontinuous Galerkin method by patch reconstruction for elliptic interface problem on unfitted mesh, *SIAM Journal on Scientific Computing* 42 (2020), no. 2, A1428-A1457.
  67. **Li, Ruo** and Yang, Fanyi, A sequential least squares method for Poisson equation using a patch reconstructed space, *SIAM Journal on Numerical Analysis* 58 (2020), no. 1, 353-374.
  68. **Li, Ruo** and Zhang, Xiaohua, A finite volume scheme for savage-hutter equations on unstructured grids, *Numerical Mathematics-Theory Methods and Applications* 13 (2020), no. 2, 479-496.
  69. **Li, Ruo** and Zheng, Weiying, Preface, *Advances in Applied Mathematics and Mechanics* 12 (2020), no. 1, I-II.
  70. **Li, Tiejun;** Li, Tongkai and Lu, Shaoying, No-oscillation theorem for the transient dynamics of the linear signal transduction pathway and beyond, *Discrete and Continuous Dynamical Systems-Series B* 25 (2020), no. 7, 2749-2774.
  71. **Li, Wenwei**, Stable conjugacy and epipelagic  $L$ -packets for Brylinski-Deligne covers of  $Sp(2n)$ , *Selecta Mathematica-New Series* 26 (2020), no. 1, Art. No. 12.
  72. **Li, Xiaoqing; Yang, Jiansheng** and **Ma, Jinwen**, Large scale category-structured image retrieval for object identification through supervised learning of CNN and surf-based matching, *IEEE Access* 8 (2020), 57796-57809.
  73. **Li, Xiangyang; Zhang, Huan** and **Zhou, Xiao-Hua**, Chinese clinical named entity recognition with variant neural structures based on bert methods, *Journal of Biomedical Informatics* 107 (2020), Art. No. 103422.
  74. Li, Ying and **Mo, Xiaohuan**, On isoperimetric problem in a 2-dimensional Finsler space of funk type, *Results in Mathematics* 75 (2020), no. 4, Art. No. 154.
  75. Li, Yi; Sun, Weidi and **Sun, Meng**, Mediator: A component-based modeling language for concurrent and distributed systems, *Science of Computer Programming* 192 (2020), Art. No. 102438.
  76. Li, Zhiming; **Ai, Mingyao;** Sun, Shuman, Parameter estimation in uncertain differential equations with exponential solutions, *Journal of Intelligent & Fuzzy Systems*, 39 (2020), no. 3, 3795-3804.
  77. Li, Zhiming; Kong, Qingxun and **Ai, Mingyao**, Construction of some  $s$ -level regular designs with general minimum lower-order confounding, *Statistics & Probability Letters* 167 (2020), Art. No. 108897.
  78. Liu, Huaifu; **Mo, Xiaohuan** and Zhang, Hongzhen, Finsler warped product metrics with special riemannian curvature properties, *Science China-Mathematics* 63 (2020), no. 7, 1391-1408.
  79. **Liu, Heping** and Wang, Min, Boundedness of the bilinear Bochner-Riesz means in the non-banach triangle case, *Proceedings of the American Mathematical Society* 148 (2020), no. 3, 1121-1130.

80. **Liu, Jingjing**; Lou, Yifei; Ni, Guoxi and Zeng, Tiejong, Inverse P An image sharpening operator combined with framelet for image deblurring problems 36 (2020), no. 4, Art. No. 045015.
81. **Liu, Xiaobo** and Terng, Chuu-Lian, Ancient solutions to mean curvature flow for isoparametric submanifolds, *Mathematische Annalen* 378 (2020), no. 1-2, 289-315.
82. **Liu, Yue**; Fang, Zhuangyan; **He, Yangbo**; **Geng, Zhi** and Liu, Chunchen, Local causal network learning for finding pairs of total and direct effects, *Journal of Machine Learning Research* 21 (2020).
83. **Lu, Zehong**; Jiang, Xin; Huo, Guanying; Ye, Danlei; Wang, Bolun and Zheng, Zhiming, A fast T-spline fitting method based on efficient region segmentation, *Computational & Applied Mathematics* 39 (2020), no. 2, Art. No. 55.
84. **Luo, Xiao**; Tu, Xinming; Ding, Yang; Gao, Ge and **Deng, Minghua**, Expectation pooling: An effective and interpretable pooling method for predicting DNA-protein binding, *Bioinformatics* 36 (2020), no. 5, 1405-1412.
85. Ma, Wenjing; Ao, Yulong; **Yang, Chao** and Williams, Samuel, Solving a trillion unknowns per second with HPGMG on subway tailight, *Cluster Computing-the Journal of Networks Software Tools and Applications* 23 (2020), no. 2, 493-507.
86. **Mo, Yi**; Du, Mengjie; Ge, Wei and **Zhang, Pingwen**, Analysis of the energy-minimization multiscale model with multiobjective optimization, *Particuology* 48 (2020), 109-115.
87. **Mu, Kedian**, Intrinsic approaches to prioritizing diagnoses in multi-context systems, *Artificial Intelligence* 289 (2020), Art. No. 103383.
88. **Mu, Yingxin** and **Zhang, Yuan**, On some threshold-one attractive interacting particle systems on homogeneous trees, *Journal of Applied Probability* 57 (2020), no. 3, 866-898.
89. Peng, Hui; **Zhai, Qilong**; Zhang, Ran and Zhang, Shangyou, Weak Galerkin and continuous Galerkin coupled finite element methods for the Stokes-Darcy interface problem, *Communications in Computational Physics* 28 (2020), no. 3, 1147-1175.
90. **Qi, Shuai** and **Tang, Lin**, Boundary regularity estimates for the nonlocal normalized  $p$ -Laplacian in different kind of domains', *Nonlinear Analysis-Theory Methods & Applications* 199 (2020), Art. No.111938.
91. **Qian, Xinjie** and **Yang, Jiazhong**, On the number of hyperelliptic limit cycles of Lienard systems, *Qualitative Theory of Dynamical Systems* 19 (2020), no. 1, Art. No. 43.
92. **Ren, Yan-Xia**; Song, Renming and Sun, Zhenyao, Limit theorems for a class of critical superprocesses with stable branching, *Stochastic Processes and Their Applications* 130 (2020), no. 7, 4358-4391.
93. **Ren, Yan-Xia**; Song, Renming and **Sun, Zhenyao**, Spine decompositions and limit theorems for a class of critical superprocesses, *Acta Applicandae Mathematicae* 165 (2020), no. 1, 91-131.
94. **Shan, Minjie**, Well-posedness for the two-dimensional Zakharov-Kuznetsov equation, *Funkcialaj Ekvacioj-Serio Internacia* 63 (2020), no. 1, 67-95.
95. **Shao, Sihong** and Xiong, Yunfeng, Branching random walk solutions to the wigner equation, *SIAM Journal on Numerical Analysis* 58 (2020), no. 5, 2589-2608.
96. **Shi, Jifan**; Teschendorff, Andrew E.; Chen, Weiyan; Chen, Luonan and **Li, Tiejun**, Quantifying waddington's epigenetic landscape: A comparison of single-cell potency measures, *Briefings in Bioinformatics* 21 (2020), no. 1, 248-261.
97. **Shi, Jifan**; Zhao, Juan; Liu, Xiaoping; Chen, Luonan and **Li, Tiejun**, Quantifying direct dependencies in biological networks by multiscale association analysis, *IEEE-ACM Transactions on Computational Biology and Bioinformatics* 17 (2020), no. 2, 449-458.
98. **Shi, Liucheng** and Guo, Zhaozhong, Baguena: A practical proof of stake protocol with a robust delegation mechanism, *Chinese Journal of Electronics* 29 (2020), no. 5, 887-898.
99. **Sun, Wenxiang** and Young, Todd, Lyapunov exponent, Liao perturbation and persistence, *Science China-*

Mathematics 63 (2020), no. 9, 1913-1928.

100. **Tang, Lin** and Zhang, Guoming,  $L^p$  estimates for Riesz transforms associated to Schrodinger operators with discontinuous coefficients, *Journal of Pseudo-Differential Operators and Applications* 11 (2020), no. 2, 505-515.
101. **Tao, Xueyan** and Fang, Zhong Bo, Global existence of solutions for a  $p$ -Laplacian equation with nonlocal Fisher-KPP type reaction terms, *Mathematical Methods in the Applied Sciences* 43 (2020), no. 12, 7361-7371.
102. Umezaki, Naoya; **Yang, Enlin** and Zhao, Yigeng, Characteristic class and the epsilon-factor of an Etale sheaf, *Transactions of the American Mathematical Society* 373 (2020), no. 10, 6887-6927.
103. **Usman, M.**; Zubair, T.; Hamid, M. and Haq, R. U., Novel modification in wavelets method to analyze unsteady flow of nanofluid between two infinitely parallel plates, *Chinese Journal of Physics* 66 (2020), 222-236.
104. **Wang, Chao** and Wang, Yuxi, Zero-viscosity limit of the Navier-Stokes equations in a simply-connected bounded domain under the analytic setting, *Journal of Mathematical Fluid Mechanics* 22 (2020), no. 1.
105. Wang, Fei; **Wu, Shuonan** and Xu, Jinchao, A mixed discontinuous Galerkin method for linear elasticity with strongly imposed symmetry, *Journal of Scientific Computing* 83 (2020), no. 1, Art. No. 2.
106. **Wang, Hua**; Chen, Jinru; Sun, Pengtao and Lan, Rihui, An interface-unfitted conforming enriched finite element method for Stokes-elliptic interface problems with jump coefficients, *Communications in Computational Physics* 27 (2020), no. 4, 1174-1200.
107. **Wang, Jie**, Systems of polynomials with at least one positive real zero, *Journal of Algebra and Its Applications* 19 (2020), no. 10, Art. No. 2050183.
108. **Wang, Jie**, Toric P-difference varieties, *Science China-Mathematics*, 63 (2020), no. 4, 643-670.
109. Wang, Jiaxiang; Wang, Xu-Jia and **Zhou, Bin**, Moser-Trudinger inequality for the complex Monge-Ampere equation, *Journal of Functional Analysis* 279 (2020), no. 12, Art. No. 108765.
110. **Wang, Jindong** and Xu, Wei, Risk-based capital for variable annuity under stochastic interest rate, *Astin Bulletin* 50 (2020), no. 3, 959-999.
111. **Wang, Liang** and Wang, Zhenghan, In and around abelian anyon models\*, *Journal of Physics A-Mathematical and Theoretical* 53 (2020), no. 50, Art. No. 505203.
112. Wang, Li; **Xu, Qiang** and **Zhou, Shulin**,  $L^p$  Neumann problems in homogenization of general elliptic operators, *Discrete and Continuous Dynamical Systems* 40 (2020), no. 8, 5019-5045.
113. **Wang, Shaoqing** and **Yang, Jiazhong**, Period functions and critical periods of piecewise linear system, *Electronic Journal of Differential Equations* (2020), Art. No. 79.
114. **Wang, Shaoqing** and **Yang, Jiazhong**, Realization of arbitrary configuration of limit cycles of piecewise linear systems, *International Journal of Bifurcation and Chaos* 30 (2020), no. 9, Art. No. 2050133.
115. **Wei, Dongyi**; **Zhang, Zhifei** and Zhao, Weiren, Linear inviscid damping and enhanced dissipation for the Kolmogorov flow, *Advances in Mathematics* 362 (2020), Art. No. 106963.
116. **Wei, Dongyi**; **Zhang, Zhifei** and Zhu, Hao, Linear inviscid damping for the beta-plane equation, *Communications in Mathematical Physics* 375 (2020), no. 1, 127-174.
117. Wu, Huangjian; **Lin, Wei**; **Chen, Song Xi**; et al., Improving PM2.5 forecasts in China using an initial error transport model, *Environmental Science & Technology* 54 (2020), no. 17, 10493-10501.
118. **Wu, Linjie**; Wang, Han; Xia, Yuchao and **Xi, Ruibin**, CNV-BAC: Copy number variation detection in bacterial circular genome, *Bioinformatics* 36 (2020), no. 12, 3890-3891.
119. **Wu, Lan**; **Zang, Xin** and Zhao, Hongxin, Analytic value function for a pairs trading strategy with a levy-driven Ornstein-Uhlenbeck process, *Quantitative Finance* 20 (2020), no. 8, 1285-1306.
120. **Wu, Shuonan** and Li, Yukun, Analysis of the morley element for the Cahn-Hilliard equation and the Hele-

- Shaw flow, *Esaim-Mathematical Modelling and Numerical Analysis-Modelisation Mathematique Et Analyse Numerique* 54 (2020), no. 3, 1025-1052.
121. **Wu, Shuonan** and Xu, Jinchao, Simplex-averaged finite element methods for  $h(\text{grad})$ ,  $h(\text{curl})$ , and  $h(\text{div})$  convection-diffusion problems, *SIAM Journal on Numerical Analysis* 58 (2020), no. 1, 884-906.
  122. **Wu, Yichong; Li, Tiejun;** Liu, Xiaoping and Chen, Luonan, Differential network inference via the fused D-trace loss with cross variables, *Electronic Journal of Statistics* 14 (2020), no. 1, 1269-1301.
  123. **Xiao, Qianying;** Zhang, Yiwei, On the computation of extended rescaled Poincaré maps for singular vector fields, *Dynamical Systems*, 35 (2020), no. 2, 259-274.
  124. **Xiao, Yijun;** Yan, Ting; Zhang, Huiming; Zhang, Yuanyuan, A Robust Riemann Solver for Multiple Hydro-Elastoplastic Solid Mediums, *Journal of Inequalities and Applications* 2020 (2020), no. 1, 252.
  125. **Xu, Xiaomeng,** Stokes phenomenon and Yang-Baxter equations, *Communications in Mathematical Physics* 377 (2020), no. 1, 149-159.
  126. **Yan, Kai,** A modified symbolic implicit monte Carlo method for time-dependent thermal radiation transport, *Journal of Computational and Theoretical Transport* 49 (2020), no. 6, 282-302.
  127. **Yang, Yi** and Yao, Xiaoting, A note on core decomposition of Mandelbrot set, *Chaos, Solitons and Fractals*, 140 (2020), Art. No. 110147.
  128. Ye, Haishan; Luo, Luo and **Zhang, Zhihua,** Nesterov's acceleration for approximate Newton, *Journal of Machine Learning Research* 21 (2020).
  129. **Yin, Jianyuan;** Wang, Yiwei; Chen, Jeff Z. Y.; **Zhang, Pingwen** and **Zhang, Lei,** Construction of a pathway map on a complicated energy landscape, *Physical Review Letters* 124 (2020), no. 9, Art. No. 090601.
  130. **Yin, Yunjian;** Liu, Lan; **Geng, Zhi** and Luo, Peng, Novel criteria to exclude the surrogate paradox and their optimalities, *Scandinavian Journal of Statistics* 47 (2020), no. 1, 84-103.
  131. **Yu, Chen;** Li, Haochen; Xia, Jiangjiang; Wen, Hanqiuzi and **Zhang, Pingwen,** A data-driven random subfeature ensemble learning algorithm for weather forecasting, *Communications in Computational Physics* 28 (2020), no. 4, 1305-1320.
  132. Yuan, Yuhuan and **Tang, Huazhong,** Two-stage fourth-order accurate time discretizations for 1D and 2D special relativistic hydrodynamics, *Journal of Computational Mathematics* 38 (2020), no. 5, 768-796.
  133. **Zhai, Qilong;** Hu, Xiaozhe and Zhang, Ran, The shifted-inverse power weak Galerkin method for eigenvalue problems, *Journal of Computational Mathematics* 38 (2020), no. 4, 606-623.
  134. **Zhai, Qilong;** Tian, Tian; Zhang, Ran and Zhang, Shangyou, A symmetric weak Galerkin method for solving non-divergence form elliptic equations, *Journal of Computational and Applied Mathematics* 372 (2020), Art. No. 112693.
  135. **Zhang, Shuai** and Xu, Shaopeng, The probabilistic Cauchy problem for the fourth order Schrodinger equation with special derivative nonlinearities, *Communications on Pure and Applied Analysis* 19 (2020), no. 7, 3785-3803.
  136. **Zhang, Shuai** and Xu, Shaopeng, The probabilistic Cauchy problem for the fourth order Schrodinger equation with special derivative nonlinearities, *Communications on Pure and Applied Analysis* 19 (2020), no. 6, 3367-3385.
  137. **Zhang, Wenqian,** Matching extendability and connectivity of regular graphs from eigenvalues, *Graphs and Combinatorics* 36 (2020), no. 1, 93-108.
  138. **Zhang, Zhe; Zhang, Guangyi; Mao, Heng;** et al., 3D Hessian deconvolution of thick light-sheet Z-stacks for high-contrast and high-SNR volumetric imaging, *Photonics Research* 8 (2020), no. 6, 1011-1021.
  139. **Zhang, Zhifei** and Zi, Ruizhao, Convergence to equilibrium for the solution of the full compressible Navier-Stokes equations, *Annales De L Institut Henri Poincare-Analyse Non Lineaire* 37 (2020), no. 2, 457-488.

140. **Zhao, Jin**; Zhang, Zhimin and Yong, Wen'an, Vector-type boundary schemes for the lattice Boltzmann method based on vector-BGK models, *SIAM Journal on Scientific Computing* 42 (2020), no. 5, B1250-B1270.
141. **Zhao, Jin**; Zhang, Zhimin, Seven-velocity three-dimensional vectorial lattice Boltzmann method including various types of approximations to the pressure and two-parameterized second-order boundary treatments, *Computers and Mathematics with Applications* 80 (2020), no. 12, 2764-2779.
142. **Zhou, Hui**; Xu, Liufeng; Cui, Yang; **Feng, Rongquan** and Ding, Qi, On Hamilton decompositions of Cayley graphs on dihedral groups, *Applied Mathematics and Computation* 372 (2020), Art. No. 124967.
143. **Zhou, Jianfeng** and Tan, Zhong, Regularity of weak solutions to a class of nonlinear problem with non-standard growth conditions, *Journal of Mathematical Physics* 61 (2020), no. 9, Art. No. 091509.
144. **Zhou, Kun**; Meng, Xiangxi and Cheng, Bo, Review of stereo matching algorithms based on deep learning, *Computational Intelligence and Neuroscience* 2020 (2020), Art. No. 8562323.
145. **Zhu, Jintian**, Rigidity of area-minimizing 2-spheres in  $n$ -manifolds with positive scalar curvature, *Proceedings of the American Mathematical Society* 148 (2020), no. 8, 3479-3489.

(2) SCI 收录的非第一作者和通讯作者的 83 篇论文，按第一作者姓氏字母顺序排列：

1. Bai, Yuanchao; Jia, Huizhu; **Jiang, Ming**; Liu, Xianming; Xie, Xiaodong and Gao, Wen, Single-image blind deblurring using multi-scale latent structure prior, *IEEE Transactions on Circuits and Systems for Video Technology* 30 (2020), no. 7, 2033-2045.
2. Cai, Xiongwei and **Liu, Zhangju**, Derived brackets for fat Leibniz algebras, *Journal of Geometry and Physics* 147 (2020), Art. No. 103524.
3. Cai, Xiongwei; **Liu, Zhangju** and Xiang, Maosong, Cohomology of hemistrict Lie 2-algebras, *Communications in Algebra* 48 (2020), no. 8, 3315-3341.
4. Chang, Huai-Liang; **Guo, Shuai**; Li, Wei-Ping and Zhou, Jie, Genus-one gromov-witten invariants of quintic three-folds via MSP localization, *International Mathematics Research Notices* 2020 (2020), no. 19, 6347-6390.
5. Chang, Jinyong; Ji, Yanyan; Shao, Bilin; **Xu, Maozhi** and Xue, Rui, Certificateless Homomorphic Signature Scheme for Network Coding, *IEEE-Acm Transactions on Networking* 28 (2020), no. 6, 2615-2628.
6. Chen, Mingjuan and **Zhang, Shuai**, Random data Cauchy problem for the fourth order Schrodinger equation with the second order derivative nonlinearities, *Nonlinear Analysis-Theory Methods & Applications* 190 (2020), Art. No. 111608.
7. Chen, Wei-Qiang; Jian, Chao-Ming; Kong, Liang; You, Yi-Zhuang and **Zheng, Hao**, Topological phase transition on the edge of two-dimensional  $Z(2)$  topological order, *Physical Review B* 102 (2020), no. 4, Art. No. 045139.
8. Chen, Zhuo; **Liu, Zhangju** and Xiang, Maosong, Kapranov's construction of SH Leibniz algebras, *Homology Homotopy and Applications* 22 (2020), no. 1, 141-165.
9. Cong, Tianshu; Xia, Aihua and **Zhang, Fuxi**, A large sample property in approximating the superposition of i.i.d. Finite point processes, *Stochastic Processes and Their Applications* 130 (2020), no. 7, 4493-4511.
10. Cortes-Ciriano, Isidro; Lee, Jake June-Koo; **Xi, Ruibin**; et al., Comprehensive analysis of chromothripsis in 2,658 human cancers using whole-genome sequencing, *Nature Genetics* 52 (2020), no. 3, 331+.
11. Cui, Yongping; Chen, Hongyan; **Xi, Ruibin**; et al., Whole-genome sequencing of 508 patients identifies key molecular features associated with poor prognosis in esophageal squamous cell carcinoma, *Cell Research* 30 (2020), no. 10, 902-913.
12. Deng, Weihua; Wang, Xudong and **Zhang, Pingwen**, Anisotropic nonlocal diffusion operators for normal and anomalous dynamics, *Multiscale Modeling & Simulation* 18 (2020), no. 1, 415-443.
13. Deng, Yuxing and **Zhu, Xiaohua**, A note on compact Kappa-solutions of Kahler-Ricci flow, *Proceedings*



of the American Mathematical Society 148 (2020), no. 7, 3073-3078.

14. Dong, Bin; **Ju, Haocheng**; Lu, Yiping; et al., Cure: curvature regularization for missing data recovery, *SIAM Journal on Imaging Sciences* 13 (2020), no. 4, 2169-2188.
15. **Mao, Heng; Zhang, Guangyi; Zhang, Zhe**; et al., Super-resolution fluorescence-assisted diffraction computational tomography reveals the three-dimensional landscape of the cellular organelle interactome, *Light-Science & Applications* 9 (2020), no. 1, Art. No. 11.
16. Dong, Lizheng; Zeng, Wenjing; Wang, Ankuo; **Tang, Junjie**; Yao, Xiaodong and Wang, Wei, Response of soil respiration and its components to warming and dominant species removal along an elevation gradient in alpine meadow of the Qinghai-Tibetan Plateau, *Environmental Science & Technology* 54 (2020), no. 17, 10472-10482.
17. Dong, Qiannan; **Su, Shuai** and Wu, Jiming, A decoupled and positivity-preserving DDFV scheme for diffusion problems on polyhedral meshes, *Communications in Computational Physics* 27 (2020), no. 5, 1378-1412.
18. Dong, Qiannan; **Su, Shuai** and Wu, Jiming, Analysis of the decoupled and positivity-preserving DDFV schemes for diffusion problems on polygonal meshes, *Advances in Computational Mathematics* 46 (2020), no. 2, Art. No. 12.
19. Fan, Yanqin; Han, Fang; **Li, Wei** and Zhou, Xiao-Hua, On rank estimators in increasing dimensions, *Journal of Econometrics* 214 (2020), no. 2-3, 379-412.
20. Fan, Yuwei; **Li, Ruo**; Zheng, Lingchao, A nonlinear hyperbolic model for radiative transfer equation in slab geometry, *SIAM Journal on Applied Mathematics* 80 (2020), no. 6, 2388-2419.
21. Feng, Yan-Quan; Kovacs, Istvan; **Wang, Jie** and Yang, Da-Wei, Existence of non-Cayley Haar graphs, *European Journal of Combinatorics* 89 (2020), Art. No. 103146.
22. Feng, Zhicheng; Liu, Yanjun and **Zhang, Jiping**, On heights of characters of finite groups, *Journal of Algebra* 556 (2020), 106-135.
23. Guo, Zihua and **Shen, Jia**, Scattering below the ground state for the 2D non-linear Schrodinger and Klein-Gordon equations revisited, *Journal of Mathematical Physics* 61 (2020), no. 8, Art. No. 081507.
24. Guo, Zihua and **Shen, Jia**, Scattering for the quadratic Klein-Gordon equations, *Nodea-Nonlinear Differential Equations and Applications* 27 (2020), no. 3, Art. No. 31.
25. Hillairet, Matthieu and **Wu, Di**, Effective viscosity of a polydispersed suspension, *Journal De Mathematiques Pures Et Appliquees* 138 (2020), 413-447.
26. Hu, Xue and **Shi, Yuguang**, NNSC-cobordism of bartnik data in high dimensions, *Symmetry Integrability and Geometry-Methods and Applications* 16 (2020), Art. No. 030.
27. Iliev, Iliya D.; **Li, Chengzhi** and Yu, Jiang, On the cubic perturbations of the symmetric 8-loop Hamiltonian, *Journal of Differential Equations* 269 (2020), no. 4, 3387-3413.
28. Jeanjean, Louis and **Lu, Sheng-Sen**, A mass supercritical problem revisited, *Calculus of Variations and Partial Differential Equations* 59 (2020), no. 5, Art. No. 174.
29. Jitomirskaya, Svetlana; Liu, Wencai and **Shi, Yunfeng**, Anderson localization for multi-frequency quasi-periodic operators on  $Z(D)$ , *Geometric and Functional Analysis* 30 (2020), no. 2, 457-481.
30. Kang, Ming-Chang and **Zhou, Jian**, Noether's problem for some semidirect products, *Advances in Mathematics* 368 (2020), Art. No. 107164.
31. Khan, Z. H.; Makinde, O. D.; **Hamid, M.**; Ul Haq, Rizwan and Khan, W. A., Hydromagnetic flow of ferrofluid in an enclosed partially heated trapezoidal cavity filled with a porous medium, *Journal of Magnetism and Magnetic Materials* 499 (2020), Art. No. 166241.
32. Khan, Z. H.; Usman, M.; **Zubair, T.**; Hamid, M. and Haq, R. U., Brownian motion and thermophoresis effects on unsteady stagnation point flow of eyring-powell nanofluid: A Galerkin approach, *Communications in Theoretical Physics* 72 (2020), no. 12, Art. No. 125005.

33. Kluth, Tobias; Bathke, Christine; **Jiang, Ming** and Maass, Peter, Joint super-resolution image reconstruction and parameter identification in imaging operator: Analysis of bilinear operator equations, numerical solution, and application to magnetic particle imaging, *Inverse Problems* 36 (2020), no. 12, Art. No. 124006.
34. Kong, Liang; Lan, Tian; Wen, Xiao-Gang; Zhang, Zhi-Hao and **Zheng, Hao**, Classification of topological phases with finite internal symmetries in all dimensions, *Journal of High Energy Physics* (2020), no. 9, Art. No. 093.
35. Kong, Liang and **Zheng, Hao**, A mathematical theory of gapless edges of 2D topological orders. Part I, *Journal of High Energy Physics* (2020), no. 2, Art. No. 150.
36. **Geng, Zhi; Miao, Wang**; Jiang, Zhichao; et al., Causal inference, *Engineering* 6 (2020), no. 3, 253-263.
37. Lang, Honglei; **Liu, Zhangju** and Sheng, Yunhe, Affine structures on Lie groupoids, *Pacific Journal of Mathematics* 307 (2020), no. 2, 353-382.
38. Ledrappier, Francois and **Shu, Lin**, Robustness of Liouville measure under a family of stable diffusions, *Communications on Pure and Applied Mathematics* 73 (2020), no. 12, 2708-2736.
39. Li, Hongkai; **Geng, Zhi**; Sun, Xiaoru; Yu, Yuanyuan and Xue, Fuzhong, A novel path-specific effect statistic for identifying the differential specific paths in systems epidemiology, *BMC Genetics* 21 (2020), no. 1, Art. No. 85.
40. Li, Qing; Li, Lili; **Wang, Weinan**; Li, Qi and Zhong, Jiang, A comprehensive exploration of semantic relation extraction via pre-trained CNNs, *Knowledge-Based Systems* 194 (2020), Art. No. 105488.
41. Li, Rui; Yang, Haijian and **Yang, Chao**, Parallel multilevel restricted Schwarz preconditioners for implicit simulation of subsurface flows with Peng-Robinson equation of state, *Journal of Computational Physics* 422 (2020), Art. No. 109745.
42. Liang, Chao; Qian, Sheng and **Sun, Wenxiang**, Pressure and exponential rate over periodic orbits, *Journal of Mathematical Analysis and Applications* 486 (2020), no. 2, Art. No. 123886.
43. Liao, Gang; **Sun, Wenxiang**; Vargas, Edson and Wang, Shirou, Approximation of Bernoulli measures for non-uniformly hyperbolic systems, *Ergodic Theory and Dynamical Systems* 40 (2020), no. 1, 233-247.
44. Liao, Jun; Liu, He Guo; Xu, Xing Zhong and **Zhang, Ji Ping**, Finitely generated nilpotent groups of infinite cyclic commutator subgroups, *Acta Mathematica Sinica-English Series* 36 (2020), no. 12, 1315-1340.
45. Lin, Qiu-Shi; **Hu, Tao-Jun** and Zhou, Xiao-Hua, Further explanations for the Eq. (3) in "estimating the daily trend in the size of the COVID-19 infected population in Wuhan", *Infectious Diseases of Poverty* 9 (2020), no. 1, Art. No. 129.
46. Lin, Qiu-Shi; **Hu, Tao-Jun** and Zhou, Xiao-Hua, Estimating the daily trend in the size of the COVID-19 infected population in Wuhan, *Infectious Diseases of Poverty* 9 (2020), no. 1, Art. No. 69.
47. Liu, Huaifu and **Mo, Xiaohuan**, The explicit construction on Finsler warped product metrics of scalar flag curvature, *Houston Journal of Mathematics* 46 (2020), no. 2, 307-321.
48. Liu, Longzhao; Wang, Xin; Zheng, Yi; **Fang, Wenyi**; Tang, Shaoting and Zheng, Zhiming, Homogeneity trend on social networks changes evolutionary advantage in competitive information diffusion, *New Journal of Physics* 22 (2020), no. 1, Art. No. 013019.
49. Liu, Yanjun; Willems, Wolfgang; Xiong, Huan and **Zhang, Jiping**, Trivial intersection of blocks and Nilpotent subgroups, *Journal of Algebra* 559 (2020), 510-528.
50. Luan, Heng-Wei; Shao, Yang; Li, Jin-Feng; Mao, Wen-Lue; Han, Zhi-Dong; **Shao, Chunlin** and Yao, Ke-Fu, Phase stabilities of high entropy alloys, *Scripta Materialia* 179 (2020), 40-44.
51. Luo, Shousheng; Zhang, Yanchun; **Zhou, Tie**; Song, Jinping and Wang, Yanfei, XCT image reconstruction by a modified superiorized iteration and theoretical analysis, *Optimization Methods & Software* 35 (2020), no. 6, 1080-1097.
52. Luo, Xin and **Zhang, Dong**, Spectrum of signless 1-Laplacian on simplicial complexes, *Electronic Journal*

of Combinatorics 27 (2020), no. 2, Art. No. P2.30.

53. Ming, Mei and **Wang, Chao**, Water waves problem with surface tension in a corner domain I: A priori estimates with constrained contact angle, *SIAM Journal on Mathematical Analysis* 52 (2020), no. 5, 4861-4899
54. Ming, Mei and **Wang, Chao**, Water-waves problem with surface tension in a corner domain II: The local well-posedness, *Communications on Pure and Applied Mathematics* 74 (2020), no. 2, 225-285.
55. Paicu, Marius; Zhang, Ping and **Zhang, Zhifei**, On the hydrostatic approximation of the Navier-Stokes equations in a thin strip, *Advances in Mathematics* 372 (2020), Art. No. 107293.
56. Pan, Xun; **Liu, Jian-Ming**; et al., Terahertz time-domain absorption spectra of Cu(I) complexes bearing tetraphosphine ligands, *Dalton Transactions* 49 (2020), no. 42, 14941-14950.
57. Procaccia, Eviatar B.; Rosenthal, Ron and **Zhang, Yuan**, Stabilization of DLA in a wedge, *Electronic Journal of Probability* 25 (2020), Art. No. 42.
58. Qian, Yanxia; **Wu, Shuonan** and Wang, Fei, A mixed discontinuous Galerkin method with symmetric stress for Brinkman problem based on the velocity-pseudostress formulation, *Computer Methods in Applied Mechanics and Engineering* 368 (2020), Art. No. 113177.
59. Qin, Jing; You, Chong; Lin, Qiushi; **Hu, Taojun**; et al., Estimation of incubation period distribution of COVID-19 using disease onset forward time: A novel cross-sectional and forward follow-up study, *Science Advances* 6 (2020), no. 33, Art. No. eabc1202.
60. Ren, Michael and **Xu, Xiaomeng**, Quasi-invariants in characteristic  $p$  and twisted quasi-invariants, *Symmetry Integrability and Geometry-Methods and Applications* 16 (2020), Art. No. 107.
61. Sieverling, Lina; Hong, Chen; **Xi, Ruibin**; et al., Genomic footprints of activated telomere maintenance mechanisms in cancer, *Nature Communications* 11 (2020), no. 1, Art. No. 733.
62. Sun, Zhangpeng; Yao, Wenqi and **Lu, Tiao**, Optimization modeling and simulating of the stationary wigner inflow boundary value problem, *Journal of Scientific Computing* 85 (2020), no. 1, Art. No. 21.
63. Tan, Zhong; Wu, Wenpei and **Zhou, Jianfeng**, Existence of mild solutions and regularity criteria of weak solutions to the viscoelastic Navier-Stokes equation with damping, *Communications in Mathematical Sciences* 18 (2020), no. 1, 205-226.
64. Tao, Tao; Wang, Wendong and **Zhang, Zhifei**, Zero-viscosity limit of the Navier-Stokes equations with the Navier friction boundary condition, *SIAM Journal on Mathematical Analysis* 52 (2020), no. 2, 1040-1095.
65. Ullah, Sana; Zuo, Zhengkang; **Iqbal, Imran**; et al., GPM-based multitemporal weighted precipitation analysis using GPM\_IMERGDF product and aster DEM in EDBF algorithm, *Remote Sensing* 12 (2020), no. 19, Art. No. 3162.
66. Usman, Muhammad; **Hamid, Muhammad**; Liu, Moubin; et al., A robust scheme based on novel-operational matrices for some classes of time-fractional nonlinear problems arising in mechanics and mathematical physics, *Numerical Methods for Partial Differential Equations* 36 (2020), no. 6, 1566-1600.
67. Usman, M.; **Hamid, M.**; **Zubair, T.**; Haq, R. U.; **Wang, Wei** and Liu, M. B., Novel operational matrices-based method for solving fractional-order delay differential equations via shifted gegenbauer polynomials, *Applied Mathematics and Computation* 372 (2020), Art. No. 124985.
68. Wang, Xiuli; **Zhai, Qilong**; Zhang, Ran and Zhang, Shangyou, The weak Galerkin finite element method for solving the time-dependent integro-differential equations, *Advances in Applied Mathematics and Mechanics* 12 (2020), no. 1, 164-188.
69. Wang, Yufei; Shen, Ziju; **Long, Zichao** and Dong, Bin, Learning to discretize: Solving 1D scalar conservation laws via deep reinforcement learning, *Communications in Computational Physics* 28 (2020), no. 5, 2158-2179.
70. Wang, Yutong; Wang, Kunfeng; **Zhu, Zhanxing** and Wang, Fei-Yue, Adversarial attacks on Faster R-CNN object detector, *Neurocomputing* 382 (2020), 87-95.

71. Wen, Xiao and **Wen, Lan**, No-shadowing for singular hyperbolic sets with a singularity, *Discrete and Continuous Dynamical Systems* 40 (2020), no. 10, 6043-6059.
72. Wen, Xiao; **Wen, Lan** and Yang, Dawei, A characterization of singular hyperbolicity via the linear Poincare flow, *Journal of Differential Equations* 268 (2020), no. 8, 4256-4275.
73. Xia, Jiangjiang; **Li, Haochen; Zhang, Pingwen**; et al., Machine learning-based weather support for the 2022 winter Olympics, *Advances in Atmospheric Sciences* 37 (2020), no. 9, 927-932.
74. Xue, Bai; Fraenzle, Martin; Zhan, Naijun; Bogomolov, Sergiy and **Xia, Bican**, Safety verification for random ordinary differential equations, *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems* 39 (2020), no. 11, 4090-4101.
75. Xue, Kaijie and **Yao, Fang**, Distribution and correlation-free two-sample test of high-dimensional means, *Annals of Statistics* 48 (2020), no. 3, 1304-1328.
76. Xue, Xiaofeng and **Zhao, Linjie**, Hydrodynamics of the weakly asymmetric normalized binary contact path process, *Stochastic Processes and Their Applications* 130 (2020), no. 11, 6757-6782.
77. Yan, Bi-Ying; **Yang, Chao**; Deng, Pan; Sun, Qiao; Chen, Feng and Yu, Yang, A spatiotemporal causality based governance framework for noisy urban sensory data, *Journal of Computer Science and Technology* 35 (2020), no. 5, 1084-1098.
78. Yao, Fengping; Zhang, Chao and **Zhou, Shulin**, Global regularity estimates for a class of quasilinear elliptic equations in the whole space, *Nonlinear Analysis-Theory Methods & Applications* 194 (2020), Art. No. 111307.
79. Ye, Danlei; Jiang, Xin; Huo, Guanying; Su, Cheng; **Lu, Zehong**; Wang, Bolun and Zheng, Zhiming, A physical process driven digital terrain model generating method based on D-NURBS, *IEEE Access* 8 (2020), 3115-3122.
80. Yin, Shenyi; **Xi, Ruibin; Xia, Yuchao; Li, Juan**; et al., Patient-derived tumor-like cell clusters for drug testing in cancer therapy, *Science Translational Medicine* 12 (2020), no. 549, Art. No. eaaz1723.
81. Zhang, Tianle; Hou, Muzhou; Zhou, Tao; Liu, Zhaode; **Cheng, Weirong** and Cheng, Yangjin, Land-use classification via ensemble dropout information discriminative extreme learning machine based on deep convolution feature, *Computer Science and Information Systems* 17 (2020), no. 2, 427-443.
82. Zhang, Yan; Yu, Weiwei; **Mao, Heng**; et al., Upconversion nanoparticles-based multiplex protein activation to neuron ablation for locomotion regulation, *Small* 16 (2020), no. 8, Art. No. 1906797.
83. Zhang, Yunjun; Li, Yuying; Wang, Lu; **Li, Mingyuan** and Zhou, Xiaohua, Evaluating transmission heterogeneity and super-spreading event of COVID-19 in a metropolis of China, *International Journal of Environmental Research and Public Health* 17 (2020), no. 10, Art. No. 3705.

(3) 28 篇 EI 论文，按第一作者姓氏字母顺序排列：

1. Bu Hao, **Sun Meng**, Modeling and verification of the CKB block synchronization protocol in COQ, *Proceedings of ICFEM 2020, LNCS 12531*, 2020.12, 1-10.
2. Chen, Jianhong; **Huang, Huang**; Hao, Wenrui; Xu, Jinchao, A machine learning method correlating pulse pressure wave data with pregnancy, *International Journal for Numerical Methods in Biomedical Engineering*, v 36, n 1, January 1, 2020.
3. Gan, Ting; **Xia, Bican**; Xue, Bai; Zhan, Naijun; Dai, Liyun, Nonlinear CRAIG interpolant generation, *Lecture Notes in Computer Science*, v 12224 LNCS, 2020, p 415-438.
4. **Jia, Zeyu**; Wen, Zaiwen; Ye, Yinyu, Towards solving 2-TBSG efficiently, *Optimization Methods and Software*, v 35, n 4, p 706-721, July 3, 2020.
5. **Li Dingquan**, Jiang Tingting, **Jiang Ming**, Norm-in-Norm Loss with Faster Convergence and Better Performance for Image Quality Assessment, *Proceedings of the 28th ACM International Conference on Multimedia*, 2020.

6. Li Tao, **Ma Jinwen**, Functional Data Clustering Analysis via the Learning of Gaussian Processes with Wasserstein distance, Proceedings of the 27th International Conference on Neural Information Processing (ICONIP 2020), 2, 2020.11, 393-403.
7. Li Yuan, **Mu Kedian**, Heterogeneous information diffusion model for social recommendation, Accepted by ICTAI2020, 2020.11.
8. **Lin Zuoquan**, Song Jiehu, Neural Hidden Markov Model, ICAART, 2019.12, 37-54.
9. Liu Liwei, **Xu Maozhi**, Improvements to the descent step in the number field sieve for discrete logarithms, CITS, DOI: 10.1109/CITS49457.20, 2020, 1-6.
10. **Mu Kedian**, Formulas Free From Inconsistency: An atom-centric characterization in Priest's minimally inconsistent  $L^p$ , IJCAI 2020, 2020.7, 5090-5094.
11. **Qiao, Linjun**; Luo, Guojie; Zhang, Wentai; **Jiang, Ming**, FPGA acceleration of ray-based iterative algorithm for 3D low-dose CT reconstruction, Proceedings-30th International Conference on Field-Programmable Logic and Applications, FPL 2020, p 98-102.
12. Shen, Hongyi; Xu, Fangfang; **Wang, Xinmin**, Research on cleaning and repairing methods of civil building data on resources saving and environment protection, Beijing Daxue Xuebao (Ziran Kexue Ban)/Acta Scientiarum Naturalium Universitatis Pekinensis, v 56, n 5, p 785-795.
13. Song Jiehu, **Lin Zuoquan**, Semantics-preserving XML query, Proceedings of the 2020 5<sup>th</sup> International Conference on Mathematics and Artificial Intelligence, 2020.
14. Wan, Ruosi; Zhong, Mingjun; Xiong, Haoyi; **Zhu, Zhanxing**, Neural control variates for Monte Carlo variance reduction, Lecture Notes in Computer Science, v 11907 LNAI, 2020, p 533-547.
15. Wang, Chuntian; **Zhang, Yuan**; Bertozzi, Andrea L.; Short, Martin B., A stochastic-statistical residential burglary model with independent Poisson clocks, European Journal of Applied Mathematics, 2020.
16. **Wang, Hengliang**; **Mu, Kedian**, Aspect-level attributed network embedding via variational graph neural networks, Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), v 12113 LNCS, p 398-414, 2020.
17. Wang Ya, **Ma Jinwen**, Li Xiangchen, Zhong Albert, Hierarchical multi-classification for sensor-based badminton activity recognition, Proceedings of the 15th IEEE International Conference on Signal Processing (ICSP 2020), 2020.12.
18. **Wen, Shuang**; Luo, Guojie, FPGA-accelerated automatic alignment for three-dimensional tomography, Proceedings-28th IEEE International Symposium on Field-Programmable Custom Computing Machines, FCCM 2020, p 172-176.
19. Yao, Chengbao; **Fu, Mei-Yan**; **Yan, Kai**; Han, Feng, Numerical simulation of multi-material compressible flows based on Riemann problem and its application in two-dimensional blast wave propagation, Huozhayao Xuebao/Chinese Journal of Explosives and Propellants, v 43, n 3, p 254-261, June 1, 2020.
20. Zhang, Wentai; **Jiang, Ming**; Luo, Guojie, Evaluating low-memory GEMMs for convolutional neural network Inference on FPGAs, Proceedings - 28th IEEE International Symposium on Field-Programmable Custom Computing Machines, FCCM 2020, p 28-32.
21. Zhang Wentai, Qiao Linjun, Hsu William, Cui Yong, **Jiang Ming**, Luo Guojie, FPGA acceleration for 3D low-dose tomographic reconstruction, IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, (Early Access), 2020.
22. **Zhang, Xiyue**; **Li, Yi**; **Sun, Meng**, Towards a formally verified EVM in production environment, Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), v 12134 LNCS, p 341-349, 2020.
23. **Zhang Xiyue**, Xie Xiaofei, Ma Lei, Du Xiaoning, Hu Qiang, LiuYang, Zhao Jianjun, **Sun Meng**, Characterizing adversarial defects of deep learning software from the LENS of uncertainty, Proceedings of ICSE 2020, 2020.6, 739-751.
24. Zhang, Yan; **Mao, Heng**; Tao, Louis; et al., Upconversion nanoparticles-based multiplex protein activation

to neuron ablation for locomotion regulation, *Small*, v 16, n 8, February 1, 2020.

25. Zhao Chenfei, **Mu Kedian**, Meta-path embedding based recommendation over heterogeneous information network, Accepted by ICTAI2020, 2020.11.
26. Zhao, Yuwen; Ao, Yulong; **Yang, Chao**; et al., General implementation of 1-D FFT on the sunway 26010 processor, *Ruan Jian Xue Bao/Journal of Software*, v 31, n 10, p 3184-3196, October 1, 2020.
27. Zohaib Nawaz M. , Hasan Osman , Saqib Nawaz M. , Fournier-Viger Philippe and **Sun Meng**, Proof searching in HOL4 with genetic algorithm, *Proceedings of SAC 2020*, 2020.3, 513-520.
28. Zou Yajun, **Ma Jinwen**, A deep semantic segmentation model for image-based table structure recognition, *Proceedings of the 15th IEEE International Conference on Signal Processing (ICSP 2020)*, 2020.12.

(4) 47 篇其他论文，按第一作者姓氏字母顺序排列：

1. Chen, Li, **Li, Ruo** and Yang, Feng, An integrated quadratic reconstruction for finite volume schemes to scalar conservation laws in multiple dimensions, *CSIAM Trans. Appl. Math.*, 2020, 1: 491-517.
2. Chen Liang, Wang Weinan, Zhai Yuyao and **Deng Minghua**, Deep soft K-means clustering with self-training for single-cell RNA sequence data, *NAR Genomics and Bioinformatics*, 2, 2020, 2.
3. 崔甲蓉, **朱枫怡**, 刘佳敏, 许王莉. 基于经验分布函数的高维正态性检验(英文)[J]. *应用概率统计*, 2020, 36(1): 41-58.
4. **邓明华**, 薛毅.“薄利多销”的统计建模与分析[J]. *数学建模及其应用*, 2020, 9(1): 67-71+78.
5. 丁志伟, **刘艳云**, 孔京, 张洪, 张一, 戴彧虹, 杨周旺. 感染人数期望值估计及新增确诊人数趋势预测的概率模型[J]. *运筹学学报*, 2020, 24(1): 1-12.
6. **范辉军**, 蒋文峰, YANG Dingyu. Landau-Ginzburg A 模型研究进展(英文)[J]. *中山大学学报(自然科学版)*, 2020, 59(1): 1-8.
7. **梅艳**, 卢眺, **朱湘疆**. 电磁粒子模拟中电荷守恒的电流分配方案满足的统一公式[J]. *数学物理学报*, 2020, 40(5): 1393-1408.
8. 富宇, **陈成**, **莫小欢**. 具有共形广义径向场的球对称 *Finsler* 流形[J]. *中国科学: 数学*, 2020, 50(7): 999-1006.
9. **关启安**. 多复变中的强开性猜想和  $L^2$  解析延拓问题[J]. *科学通报*, 2020, 65(27): 2980-2983+2979.
10. 胡云鹤, **刘艳云**, 吴凌霄, 王杰, 孔京, 张一, 戴彧虹, 杨周旺. 动态传播率模型及其在疫情分析中的应用[J]. *运筹学学报*, 2020, 24(3): 27-42.
11. Kong Liang, Lan Tian, Wen Xiao-Gang, Zhang Zhi-hao, **Zheng Hao**, Algebraic higher symmetry and categorical symmetry: A holographic and entanglement view of symmetry, *Phys. Rev. Research*, 2020(2): 043086.
12. 况琨, 李廉, **耿直**, 徐雷, 张坤, 廖备水, 黄华新, 丁鹏, **苗旺**, 蒋智超, *因果推理*, *工程*, 2020, 6(3): 253-263.
13. 郎红蕾, **刘张炬**. 李2-代数综述(英文)[J]. *数学进展*, 2020, 49(6): 641-674.
14. **李明远**, 张云俊, 周晓华. 基于 EM 算法和流行病学史数据的 COVID-19 传播模式分析[J]. *应用数学学报*, 2020, 43(2): 427-439.
15. **林秋实**, **胡陶钧**, 周晓华. 基于早期外地病例数据估计新型冠状病毒肺炎疫情中心武汉市患者人数每日趋势[J]. *应用数学学报*, 2020, 43(2): 415-426.
16. 刘欢, **何映东**, 刘金波, 黄薇, 赵娜, 赵红薇, 周晓华, 王宏宇. 血管健康指标对新发心脑血管事件的预测价值: 北京血管健康分级标准的初步验证[J]. *北京大学学报(医学版)*, 2020, 52(3): 514-520.

17. 刘洋, 鲁自群, 张继平. 具有两个 $p'$ 维非线性不可约特征标的非可解群[J]. 数学年刊A辑(中文版), 2020, 41(1): 39-52.
18. 马思伟, 贾川民, 赵政辉, 王苦社. 智能视频编码[J]. 人工智能, 2020(2): 20-28.
19. Mansour Toufik and Song Chunwei, Average length of the longest increasing subsequences in random involutions avoiding 231 and a layered pattern, Discrete Math. Lett., 2020, 1(4): 56-69.
20. 申鸿怡, 徐芳芳, 王新民. 民用建筑“四节一环保”数据的清洗与修复方法研究[J]. 北京大学学报(自然科学版), 2020, 56(5): 785-795.
21. 孙琪, 陶蕴哲, 杜强. 深度学习中残差网络的随机训练策略[J]. 计算数学, 2020, 42(3): 349-369.
22. 王君, 申鸿怡, 原雯, 杨一帆, 王新民. 民用建筑面积及能耗强度计算方法研究[J]. 建筑科学, 2020, 36(S2): 390-401.
23. Wang Lizhong, On local moonshine, RIMS Kokyuroku, 2020, No.2169.
24. 王奇超, 文再文, 蓝光辉, 袁亚湘. 优化算法的复杂度分析[J]. 中国科学:数学, 2020, 50(9): 1271-1336.
25. 王澍霏, 钟巍, 王智环, 姚成宝, 贾雷明, 田宙. 爆炸荷载作用下单层钢化玻璃破坏状态的理论预测方法[J]. 现代应用物理, 2020, 11(3): 87-93.
26. 王新民. 万物皆有“数”[J]. 知识就是力量, 2020(9): 4-5.
27. 吴大庆, 郭向阳, 马尽文, 文本挖掘与智慧教育(特稿). 数字教育, 2020.6, 6(3): 1-8.
28. 薛骁勇, 孙猛. Mediator 的概率扩展[J]. 计算机工程与科学, 2020, 42(8): 1367-1373.
29. 闫凯. 辐射流体力学数值模拟中的隐式蒙特卡罗方法[J/OL]. 原子能科学技术: 1-8.
30. 杨凤霞. 新形势下学术期刊作者队伍建设的探讨[J]. 科技与出版, 2020, 12: 122-124.
31. 杨凤霞, 钮凯福, 加强审稿专家队伍建设、合理组织同行评议[J]. 学报编辑论丛, 2020, 27: 658-662.
32. Yang, Jingping; Wang, Fang; Xie, Zongkai, Bernstein copula and Composite Bernstein copula, From Probability to Finance (Jiao Ying Editor), Lecture Notes of BICMR Summer School on Financial Mathematics, 2020: 183-217.
33. 姚成宝, 付梅艳, 韩峰, 闫凯. 欧拉坐标系下具有锐利相界面的可压缩多介质流动数值方法研究[J]. 力学学报, 2020, 52(4): 1063-1079.
34. 姚成宝, 付梅艳, 闫凯, 韩峰. 基于 Riemann 问题的可压缩多介质流体数值模拟及在二维爆炸冲击波传播问题中的应用[J]. 火炸药学报, 2020, 43(03): 254-261.
35. 叶育鑫, 薛环, 王璐, 欧阳丹彤. 基于带噪观测的远监督神经网络关系抽取[J]. 软件学报, 2020, 31(04): 1025-1038.
36. 原雯, 徐芳芳, 王新民. 民用建筑“四节一环保”数据确认研究[J]. 数学的实践与认识, 2020, 50(12): 136-147.
37. 张平文. 关于《大学与学科》的若干思考[J]. 大学与学科, 2020, 1(1): 194-200.
38. 张澍一, 陈松蹊, 郭斌, 王恒放, 林伟. 气象调整下的区域空气质量评估[J]. 中国科学: 数学, 2020, 50(4): 527-558.
39. 张原, 尤翀, 蔡振豪, 孙嘉瑞, 胡文杰, 周晓华. 新冠肺炎(COVID-19)新型随机传播动力学模型及应用[J]. 应用数学学报, 2020, 43(2): 440-451.
40. 张云俊, 张原, 尤翀, 周晓华, 新型冠状病毒肺炎(COVID-19)传染病传播动力学模型的综述, 中华医学科研管理杂志, 2020, 33.
41. 赵静. 高校学科建设会议纪要写作探讨[J]. 秘书之友, 2020(02): 27-29.

42. 赵静, 刘姝. 中国数学学科成果评价方式研究[J]. 北京师范大学学报(自然科学版), 2020, 56(04): 500-504.
43. 赵玉文, 敖玉龙, 杨超, 刘芳芳, 尹万旺, 林蓉芬. 申威 26010 众核处理器上一维 FFT 实现与优化[J]. 软件学报, 2020, 31(10): 3184-3196.
44. 钟巍, 田宙, 寿列枫. 基于线性代数的大规模快速量纲分析算法及其在爆炸与冲击工程研究中的应用[J]. 计算数学, 2020, 42(2): 170-195.
45. 钟巍, 田宙, 王铁良. 围岩气体渗流解析计算中重要假设的数学证明[J]. 地下空间与工程学报, 2020, 16(1): 35-42.
46. 朱小华. 正定第一 Chern 类的复流形上 Kahler-Einstein 度量的研究[J]. 中国科学: 数学, 2020, 50(3): 339-366.
47. 朱岩, 张艺, 王迪, 秦博涵, 郭倩, 冯荣权, 赵章界. 网络安全等级保护下的区块链评估方法[J]. 工程科学学报, 2020, 42(10): 1267-1285.