

张平文

武汉大学校长，党委副书记，北京大学博雅讲席教授

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教育背景

1988 - 1992	博士研究生	北京大学数学科学学院	导师:应隆安教授
1984 - 1988	学士	北京大学数学系	

工作经历

2022 -	武汉大学校长，党委副书记
2020 - 2022	北京大学科技创新研究院院长
2019 - 2022	北京大学副校长
2018 -	大数据分析与应用技术国家工程实验室主任
2019 - 2021	北京大学大数据科学研究中心主任
2018 - 2019	北京大学科学与工程计算中心主任
2015 - 2019	北京大学学科建设办公室主任
2013 - 2015	北京大学数学科学学院常务副院长
2010 - 2017	数学及其应用教育部重点实验室主任
2008 - 2012	北京大学数学科学学院副院长
2008 - 2012	北京大学数学科学学院副院长
2008 - 2010	数学及其应用教育部重点实验室副主任
2001 - 2018	北京大学科学与工程计算中心常务副主任
1999 - 2008	北京大学数学科学学院科学与工程计算系主任
1996 -	北京大学数学科学学院教授
1994 - 1996	北京大学数学科学学院副教授
1992 - 1994	北京大学数学科学学院助理教授

研究方向

- 软物质（复杂流体）的建模和计算

- 应用分析和数值计算
- 大数据分析与应用

荣誉与奖励

2021	何梁何利基金科学与技术进步奖
2020	美国工业与数学学会会士
2018	国际数学家大会·大会邀请报告
2016	发展中国家科学院院士
2015	中国科学院院士
2015	第八届国际工业和应用数学大会组织委员会成员及学术子委员会主席
2014	国家自然科学奖二等奖
2014	国家自然科学基金创新研究群体项目学术带头人
2014	美国工业和应用数学年会·大会邀请报告
2011	第七届国际工业和应用数学大会·大会邀请报告
2010	北京市师德标兵
2007	教育部高校科学技术奖自然科学一等奖
2002	国家自然科学基金杰出青年科学基金获得者
2002	长江学者特聘教授
1999	冯康科学计算奖

学术兼职

2022 -	北京大学博雅讲席教授
2022 -	北大计算与数字经济研究院，首席科学家
2022 -	中国教育发展战略学会教育帮扶专委会理事长
2021 -	北京大学重庆大数据研究院，首席科学家
2018 -	北京大学大数据分析与应用技术国家工程实验室，主任
2016 -	中国工业与应用数学学会（CSIAM）理事长
2004 - 2016	中国工业与应用数学学会(CSIAM)，副理事长，学术委员会主任
2015 -	“大规模科学与工程计算”国家重点实验室，学术委员会副主任
2006 -	北京应用物理与计算数学研究所计算物理实验室，学术委员会副主任
2001 - 2006	“大规模科学与工程计算”国家重点实验室，学术委员会副主任
2010 - 2014	中国计算数学学会，副理事长
2002 - 2006	中国计算数学学会，副理事长

2005 -	吉林大学, 兼职教授
2004 -	湘潭大学, 兼职教授
2004 -	苏州大学, 兼职教授
1999 - 2001	清华大学, 兼职教授

学术交流

2004.03-05	普林斯顿大学应用和计算数学系, 访问学者, 美国
2002.01-02	普林斯顿大学应用和计算数学系, 访问学者, 美国
2001.01-02	香港科技大学数学系, 访问学者
1999.07-08	加州理工大学应用数学系, 访问学者, 美国
1999.05	香港浸会大学数学系, 访问学者
1998.09-1999.02	香港浸会大学数学系, 访问学者
1997.11-1998.08	加州理工大学应用数学系, 访问学者, 美国
1996.04	香港中文大学数学系, 访问学者
1995.02-11	加州理工大学应用数学系, 访问学者, 美国
1993-1996	计算物理国家实验室, 访问副教授

杂志编委

2020 -	CSIAM Transactions on Applied Mathematics (Editor in Chief)
2014 -	Multiscale Modeling & Simulation, A SIAM Interdisciplinary Journal
2013 -	Science China Mathematics
2012 -	Discrete and Continuous Dynamical System-B
2011 -	Journal of Mathematics in Industry (Coordinating Editors)
2010 -	Applied Mathematics and Mechanics;(Associate Chief Editor Since 2014)
2007 -	Journal of Computational Mathematics
2006 -	Communications in Computational Physics
2006 -	International Journal of Nonlinear Science
2005 -	Communication in Mathematical Sciences
2005 -	Journal of Information and Computational Science
2005 - 2013	SIAM Journal on Numerical Analysis
2002 -	Applied Mathematical Research Express (AMRX)
2010 -	Advances in Mathematics
2007 -	《工程数学学报》

2006 - 《数学杂志》
2004 - 《计算数学》
2004 - 《计算物理》
2004 - 《东北数学》

主办会议

- The 8th International Congress on Industrial and Applied Mathematics (ICIAM 2015), 学术子委员会主席, 北京, 2015.8.10-14.
- Frontiers of Applied and Computational Mathematics, 北京, 2015.8.7-9.
- Workshop of Mathematical Analysis, Modeling and Computations on Liquid Crystals and Related Topics, 北京, 2015.8.8-9.
- One-Day Workshop on Mathematical Theory of Liquid Crystals, 北京, 2014.9.29.
- Northeastern Asian Symposium on Methods and Modeling for High Performance Scientific Computing, 2013.9.22-25.
- Modeling and Mathematical Theory of Phase Transition, 北京大学, 2011.12.31.
- The First Cross-straits Workshop on Computational Mathematics, 厦门, 2010.8.3-6.
- Computational Problems in Material Sciences, 苏州, 2010.8.2-4.
- Workshop on Numerical Methods of PDEs, 广州, 2010.7.28-31.
- The 7th International Conference on Scientific and Applications, 大连, 2010.6.13-16.
- China-Germany Conference on "Mathematics and Industry", 北京, 2010.3.15-17.
- The 5th China-Italy Conference on Computational and Applied Mathematics, Mathematical models in Life Science: Theory and Simulation, 意大利, 罗马, 2009.11.
- International Workshop on Quantum Systems and Semiconductor Devices: Analysis, Simulations, Applications, 北京, 2009.04.
- Rheology of complex fluids: Modeling and Numerics, 法国, 巴黎, 2009.01.
- Multiscale Modeling of Complex Fluids专题活动, 北京大学, 2007.09-2008.05
- Multiscale Modeling of Complex Fluids, University of Maryland, 2007.04
- Mathematical and numerical modeling of nanoscale devices暑期学校, 北京大学, 2005.06-07.
- Adaptive method and applications暑期学校, 北京大学, 2005.06-08.
- Scientific Computing and Applied Mathematics暑期学校, 北京大学, 2005.06-08.
- International conference on multiscale modeling and scientific computing, 北京大学, 2005.06.
- Mathematical models in life sciences: Theory and Simulation, 北京大学, Jun. 2005.
- Summer School of Scientific Computing and Applied Mathematics, 北京大学, Jul.-Aug. 2003.
- Summer School of Scientific Computing and Applied Mathematics, 北京大学, Aug.-Sept. 2003.
- The Second Chinese-Korean Joint Workshop on Recent Advances in Numerical Analysis and Its applications, 北京, 2003.02.
- Summer School of Scientific Computing and Applied Mathematics, 清华大学, 2002.07-08
- The 10th conference on Computational Methods of Fluid Mechanics (会议主席), 云南昆明, 2001.08.
- International symposium on computational & applied PDEs, 张家界, 2001.06.
- International conference on scientific & engineering computing (会议主席), 北京大学, 2001.03.
- Workshop on Numerical PDE, 北京大学, 1996.
- Overseas Chinese Computational Physics Conference, 北京, 1996.
- The 6th conference on Computational Methods of Fluid Mechanics (会议秘书), 山东大学, 1993.

邀请报告

- 2022 Global Digital Economy Conference Data Elements Summit, 北京, 2022.7.29.
- AI for Science Series Academic Lectures, 北京, 2022.5.25.
- 2018 International Congress of Mathematicians (ICM2018), 巴西里约热内卢, 2018.
- The 9th International Conference on Computational Physics, 新加坡, 2015.1.7-11.
- International Conference on Optimization, Sparsity and Adaptive Data Analysis, 北京, 2015.3.18-21.
- The 2014 SIAM Annual Meeting (AN14), Chicago, Illinois, USA, 2014.7.7-11.
- Robust Discretization and Faster Solvers for Computable Multi-Physics Models, ICERM, Brown University, 2014.5.12-16.
- The 5th International Conference on Scientific Computing and PDEs, 香港, 2014.12.8-12.
- International Conference on PDE, 广州, 2013.12.6-10.
- 2013 Northeastern Asian Symposium on Methods and Modeling for High Performance Scientific Computing, 成都, 2013.9.22-25.
- 2013 International Conference on Mathematical Modeling and Computation, 武汉, 2013.5.15-19.
- Nonlinear analysis of continuum theories: statics and dynamics, Oxford, 2013.4.8-12.
- Symmetry, bifurcation and order parameters, Cambridge, 2013.1.7-11.
- Multiscale Modeling, Simulation, Analysis and applications, 新加坡, 2012.1.9-13.
- International Conference on Scientific Computing, 香港, 2012.1.4-7.
- 7th International Congress on Industrial and Applied Mathematics, Vancouver, 2011.7.18-22.
- International Conference on Interdisciplinary Applied Mathematics and Computational Mathematics, 浙江, 2011.6.17-21.
- Sino-French Workshop on Contemporary Applied Mathematics, 上海, 2011.7.4-8.
- International Conference on Applied Mathematics and Interdisciplinary Research, 天津, 2011.6.13-16.
- Kinetic and Fluids, 北京, 2010.07.
- The 5th China-Italy Conference on Computational and Applied Mathematics. Mathematical models in Life Science: Theory and Simulation, Roma, Italy, 2009.09.
- The 3rd Chinese-German Workshop on Computational and Applied Mathematics, Heidelberg, Germany, 2009.9.28 – 10.2.
- International Workshop on Continuum Modeling of Biomolecules, 北京, 2009.09.
- Mathematical Theory and Numerical Methods of Computational Materials simulation and Design, 新加坡, 2009.08.
- International Conference on Mathematical Theory and Applications of Liquid Crystal, Ferromagnetism and Related Topics, 广州, 2009.06.
- Computational Multiscale Methods, Oberwolfach, Germany, 2009.06.
- International Workshop on Quantum Systems and Semiconductor Devices: Analysis, Simulations, Applications, 北京, 2009.04.
- Adaptivity, Robustness and Complexity of Multiscale Algorithm, Edinburgh, England, 2009.03.
- Rheology of complex fluids: Modeling and Numerics, 法国, 巴黎, 2009.01.
- The 6th International Conference on Scientific Computing and Applications, Busan, Korea, 2008.06.
- Workshop on the Foundations of numerical PDEs (FoCM), 香港, 2008.06.
- Workshop on Nanoscale Interfacial Phenomena in Complex Fluids, 北京, 2008.06.
- Canada-China workshop on industrial mathematics, Banff, Canada, 2007.08.
- Multiscale Modeling of Complex Fluids, Maryland, 2007.04.
- International Workshop on Multiscale Analysis and Applications, 新加坡, 2006.11.

- The Symposium on Multi-physics and Multi-Scale Computation of Materials-2006, 西安, 2006.11.
- International Conference on PDE and Numerical Analysis, 长沙, 2006.06.
- Workshop on Multiscale Modeling of Complex Fluids, 北京, Jun. 2006.06.
- International Conference on Recent Advances in Scientific Computations, 北京, 2006.06.
- International Conferences on Applied Mathematics and Interdisciplinary Research, 天津, 2006.06.
- International Symposium on Polymer Physics, 苏州, 2006.06.
- Interfacial Dynamics in Complex Fluids, Banff, 加拿大, 2006.05.
- International Conference on Calculus of Variations, PDEs and Nonlinear Analysis, 北京, 2006.05.
- The second International Conference on Scientific Computing and Partial Differential Equations, 香港, 2005.11.
- The 1st China-Germany Workshop on Computational and Applied Mathematics, Berlin, Germany, 2005.09.
- International conference on scientific computing, 南京, 2005.06.
- International conference on multiscale modeling and scientific computing, 北京大学, 2005.06.
- Mathematical models in life sciences: Theory and Simulation, 北京, 2005.06.
- The 3rd joint Chinese-Korean Workshop on Recent Progresses on Numerical Analysis and Its Applications, South Korea, 2005.02.
- Nanoscale Material Interfaces: Experiment, Theory and Simulation, 新加坡, 2005.01.
- Workshop on Multiscale Rheological Models for Fluids, Montreal, 加拿大, 2004.11.
- International Conference on Numerical and Applied PDEs, 长春, 2004.06.
- International Conference on Frontiers of Applied Mathematics, 北京, 2004.06.
- The 2nd International Conference on Inverse Problem, 上海, 2004.06.
- International Workshop on Wave Propagations, 北京, 2004.06.
- International Conference on Superconvergence and A Posteriori Estimates in FEM, 长沙, 2004.05.
- International Conference of Scientific Computing, 北京, 2003.12.
- The 3rd China-Italy Joint Conference on Computational and Applied Mathematics, Grado, Italy, 2003.11.
- The 2nd Chinese-Korean Joint Workshop on Recent Advances in Numerical Analysis and Its applications, 北京, 2003.02.
- The Third International Workshop on Scientific Computing and Applications, 香港, 2003.01.
- ICM2002-Beijing Satellite Conference on Scientific Computing, 西安, 2002.08.
- The 11th International Conference of Fluid Dynamics and Soft Condensed Matter, 上海, 2002.08.
- Workshop on Multiscale Analysis and Computation, 台湾, 2002.06.
- The 3rd China-Sweden Workshop on Computational Mathematics Goteberg, 瑞典, 2002.06.
- International symposium on computational & applied PDEs, 张家界, 2001.06.
- International conference on scientific & engineering computing, 北京大学, 2001.03.
- The First Chinese-Korean Joint Workshop on Recent advances in Numerical Analysis and Its Applications, 韩国, 2001.02.
- The 2nd Sino-Italian Symposium on Computational and Applied Mathematics, Ischia, Italy, 2000.06.
- The 2nd China-Sweden workshop on Numerical Partial Differential Equations, 香港, 2000.01.
- Conference of Partial Differential Equation and Numerical Method in Mechanics, 香港, 1999.06.
- The First Sino-Italian Symposium on Applied and Computational Mathematics, 北京, 1998.12.

- China-Japan Symposium on Computational Mathematics, 大连, 1997.08.
- 96'Symposium on Computational Physics, Institute of Computational Mathematics and Applied Physics, 北京, 1996.06.
- Summer Research Seminars on Theory and Computations of Fluid Dynamics, 北京, 1994.06.

专著

1. 张平文, 应用数学落地研究: 国家需求驱动应用数学发展, 高等教育出版社, (2024)
2. 张平文, 邱泽奇, 宋洁, 数字生态与治理 (第二辑): 数据要素流通及其治理, 社会科学文献出版社, (2024)
3. 张平文, 邱泽奇, 宋洁, 数字生态与治理: 数字生态与中美欧数字治理格局, 社会科学文献出版社, (2024)
4. 张平文, 邱泽奇, 数据要素五论: 信息、权属、价值、安全、交易, 北京大学出版社, (2022)
5. 张平文, 李铁军, 数值分析, 北京大学出版社, (2007)
6. Tatsien Li and Pingwen Zhang (editors), Frontiers and Prospects of Contemporary Applied Mathematics, Series in Contemporary Applied Mathematics, CAM6, Higher Education Press and World Scientific, (2006)
7. 周铁, 徐树方, 张平文, 李铁军, 计算方法, 清华大学出版社, (2006)
8. 徐树方, 高立, 张平文, 数值线性代数, 北京大学出版社, (2001)
9. Long-an Ying and Pingwen Zhang, Vortex Methods, Science Press, (1994)

论文 (中文)

1. 张平文. 围绕首都“四个中心”建设辐射带动北京市属高校发展. 北京教育, 2023, :10-13.
2. 张平文. 数字经济将成为国家发展新征程的助推器. 中国经贸导刊, 2022, :12-14.
3. 乔天宇,李由君,赵越,谭成 and 张平文. 数字治理格局研判的理论与方法探索. 中国科学院院刊, 2022, :1365-1375.
4. 张平文. 数学与企业创新. 中国科学院院刊, 2021, 36(4).
5. 王娟,张蕴洁,宋洁 and 张平文. 中美欧数字经济与贸易的比较研究. 西安交通大学学报, 2022, .
6. 王娟,张一,黄晶,李由君,宋洁 and 张平文. 中国数字生态指数的测算与分析. 电子政务, 2022, 3:4-16.
7. 张平文,贺飞,何洁 and 何峰. 把脉问诊、对标一流: 北京大学学科国际同行评议的探索与启示. 大学与学科, 2021, 2(3).
8. 张平文. 关于《大学与学科》的若干思考. 大学与学科, 2020, 1(1).

论文 (英文)

1. Tiejun Zhou,Lei Zhang,Pingwen Zhang,An-Chang Shi and Kai Jiang. Nucleation and phase transition of decagonal quasicrystals. Journal of Chemical Physics, 2024, 161(16).
2. Qiuzi Han Wen,Dingyu Wan,Quan Dong,Yan Yan and Pingwen Zhang. Improved freezing rain forecast using machine learning. Weather and Climate Extremes, 2024, 44.
3. Chenguang Duan,Yuling Jiao,Jerry Zhijian Yang and Pingwen Zhang. Recovering the Source Term in Elliptic Equation via Deep Learning: Method and Convergence Analysis. East Asian Journal on Applied Mathematics, 2024, 14(3):460-489.
4. Zhuoyuan Li,Bin Dong and Pingwen Zhang. Latent assimilation with implicit neural representations for unknown dynamics. Journal of Computational Physics, 2024, 506.
5. Kai Jiang,Qi Zhou and Pingwen Zhang. Accurately Recover Global Quasiperiodic Systems by Finite Points. Siam Journal on Numerical Analysis, 2024, 62(4):1713-1735.
6. Kai Jiang,Shifeng Li and Pingwen Zhang. Numerical Methods and Analysis of Computing Quasiperiodic Systems. Siam Journal on Numerical Analysis, 2024, 62(1):353-375.

7. Qiuqi Li, Chang Liu, Mengnan Li and Pingwen Zhang. An Adaptive Method Based on Local Dynamic Mode Decomposition for Parametric Dynamical Systems. *Communications in computational physics*, 2024, 35(1):38-69.
8. Zhijuan He, Xin Wang, Pingwen Zhang, An-Chang Shi and Kai Jiang. Theory of Polygonal Phases Self-Assembled from T-Shaped Liquid Crystalline Molecules. *Macromolecules*, 2024, 57(5):2154-2164.
9. Lei Zhang, Pingwen Zhang and Xiangcheng Zheng. Probabilistic error estimate for numerical discretization of high-index saddle dynamics with inaccurate models. *Annals of Applied Mathematics*, 2023, 40(1):1-20.
10. Yue Luo, Lei Zhang, Pingwen Zhang, Zhiyi Zhang and Xiangcheng Zheng. Semi-implicit method of high-index saddle dynamics and application to construct solution landscape. *Numerical Methods for Partial Differential Equations*, 2024, 40(6).
11. Jianyuan Yin, Lei Zhang and Pingwen Zhang. Solution landscape of the Onsager model identifies non-axisymmetric critical points. *Physica D-nonlinear Phenomena*, 2022, 430.
12. Lei Zhang, Pingwen Zhang and Xiangcheng Zheng. Error estimate for semi-implicit method of sphere-constrained high-index saddle dynamics. *Chinese Annals of Mathematics, Series B*, 2023, :1-20.
13. Juan Wang, Yunjie Zhang, Jie Song and Pingwen Zhang. The comparative study on the digital economy and trade between China, the U.S. and the EU. *Acta Numerica*, 2022, :1-89.
14. Jie Song, Guannan He, Jianxiao Wang and Pingwen Zhang. Shaping future low-carbon energy and transportation systems: Digital technologies and applications. *iEnergy*, 2022, :285-305.
15. Lei Zhang, Pingwen Zhang and Xiangcheng Zheng. A model-free shrinking-dimer saddle dynamics for finding saddle point and solution landscape. *Japan Journal of Industrial and Applied Mathematics*, 2023, :1-17.
16. Chuansai Zhou, Haochen Li, Chen Yu, Jiangjiang Xia and Pingwen Zhang. A station-data-based model residual machine learning method for fine-grained meteorological grid prediction. *Applied Mathematics and Mechanics*, 2022, :155-166.
17. Wenjia Kong, Haochen Li, Chen Yu, Jiangjiang Xia, Yanyan Kang and Pingwen Zhang. A deep spatio-temporal forecasting model for multi-site weather prediction post-processing. *Communications in Computational Physics*, 2022, :131-153.
18. Chuansai Zhou, Wen Yuan, Jun Wang, Haiyong Xu, Yong Jiang, Xinmin Wang, Qiuzi Han Wen and Pingwen Zhang. Detecting Suspected Epidemic Cases Using Trajectory Big Data. *arXiv preprint arXiv:2004.00908*, 2020, :186-206.
19. Mingwen Fei, Wei Wang, Pingwen Zhang and Zhifei Zhang. On the Isotropic-Nematic Phase Transition for the Liquid Crystal. *Peking Mathematical Journal*, 2018, 1:141-219.
20. Yi Mo, Mengjie Du, Wei Ge and Pingwen Zhang. Analysis of the energy-minimization multiscale model with multiobjective optimization. *Particuology*, 2020, 48:109-115.
21. Weihua Deng, Xudong Wang and Pingwen Zhang. Anisotropic Nonlocal Diffusion Operators for Normal and Anomalous Dynamics. *Multiscale Modeling & Simulation*, 2020, 18(1):415-443.
22. Chen Yu, Haochen Li, Jiangjiang Xia, Hanqiuzi Wen and Pingwen Zhang. A Data-Driven Random Subfeature Ensemble Learning Algorithm for Weather Forecasting. *Communications in Computational Physics*, 2020, 28(4):1305-1320.
23. Chuansai Zhou, Wen Yuan, Jun Wang, Haiyong Xu, Yong Jiang, Xinmin Wang, Qiuzi Han Wen and Pingwen Zhang. Detecting Suspected Epidemic Cases Using Trajectory Big Data. *CSIAM Transactions on Applied Mathematics*, 2020, 1(1):186-206.
24. Jiangjiang Xia, Haochen Li, Yanyan Kang, Chen Yu, Lei Ji, Lve Wu, Xiao Lou, Guangxiang Zhu, Zaiwen Wang, Zhongwei Yan, Lizhi Wang, Jiang Zhu, Pingwen Zhang, Min Chen, Yingxin Zhang, Lihao Gao and Jiarui Han. Machine Learning-based Weather Support for the 2022 Winter Olympics. *Advances in Atmospheric Sciences*, 2020, 37:927-932.
25. Qiuqi Li and Pingwen Zhang. A Variable-Separation Method for Nonlinear Partial Differential Equations With Random Inputs. *SIAM Journal on Scientific Computing*, 2020, 42(2):A723-

26. Bing Yu, Xiangcheng Zheng, Pingwen Zhang and Lei Zhang. Computing solution landscape of nonlinear space-fractional problems via fast approximation algorithm. *Journal of Computational Physics*, 2022, 468:111513.
27. Lei Zhang, Pingwen Zhang and Xiangcheng Zheng. Discretization and index-robust error analysis for constrained high-index saddle dynamics on the high-dimensional sphere. *Science China Mathematics*, 2023, 66:2347-2360.
28. Lei Zhang, Pingwen Zhang and Xiangcheng Zheng. Error estimates for euler discretization of high-index saddle dynamics. *SIAM Journal on Numerical Analysis*, 2022, 60(5):2925-2944.
29. Lei Zhang, Pingwen Zhang and Xiangcheng Zheng. Mathematical and numerical analysis to shrinking-dimer saddle dynamics with local Lipschitz conditions. *CSIAM Transaction on Applied Mathematics*, 2023, :157-176.
30. Jianyuan Yin, Lei Zhang and Pingwen Zhang. Solution Landscape of the Onsager Model Identifies Non-axisymmetric Critical Points. *Physica D: Nonlinear Phenomena*, 2022, 430:133081.
31. Jucen Han, Jianyuan Yin, Pingwen Zhang, Apala Majumdar and Lei Zhang. Solution landscape of a reduced Landau-de Gennes model on a hexagon. *Nonlinearity*, 2021, 34(4):2048-2069.
32. Wei Wang, Lei Zhang and Pingwen Zhang. Modeling and Computation of Liquid Crystals. *Acta Numerica*, 2021, 30:765-851.
33. Jianyuan Yin, Kai Jiang, AnChang Shi, Pingwen Zhang and Lei Zhang. Transition pathways connecting crystals and quasicrystals. *Proceedings of the National Academy of Sciences*, 2021, 118(49):e2106230118.
34. Jianyuan Yin, Yiwei Wang, Jeff Z. Y. Chen, Pingwen Zhang and Lei Zhang. Construction of a Pathway Map on a Complicated Energy Landscape. *Phys. Rev. Lett.*, 2020, 124(9).
35. Yucen Han, Yucheng Hu, Pingwen Zhang and Lei Zhang. Transition pathways between defect patterns in confined nematic liquid crystals. *JOURNAL OF COMPUTATIONAL PHYSICS*, 2019, 396:1-11.
36. Haochen Li, Yu, Chen, Jiangjiang Xia, Yingchun Wang, Jiang Zhu and Pingwen Zhang. A Model Output Machine Learning Method for Grid Temperature Forecasts in the Beijing Area. *Advances in Atmospheric Sciences*, 2019, 36(10):1156-1170.
37. Tian Tian, Han Wang, Wei Ge and Pingwen Zhang. Detecting Particle Clusters in Particle-Fluid Systems by a Density Based Method. *COMMUNICATIONS IN COMPUTATIONAL PHYSICS*, 2019, 26(5):1617-1630.
38. Yongqiang Cai, Pingwen Zhang and An-Chang Shi. Elastic properties of liquid-crystalline bilayers self-assembled from semiflexible-flexible diblock copolymers. *SOFT MATTER*, 2019, 15(45):9215-9223.
39. Jiajie Chen, Pingwen Zhang and Zhifei Zhang. Local minimizer and De Giorgi's type conjecture for the isotropic-nematic interface problem. *calculus of Variations*, 2018, 57(5):1-19.
40. Yiwei Wang, Pingwen Zhang and Jeff Z. Y. Chen. Formation of three-dimensional colloidal crystals in a nematic liquid crystal. *SOFT MATTER*, 2018, 14(32):6756-6766.
41. Jie Shen, Jie Xu and Pingwen Zhang. Approximations on $SO(3)$ by Wigner D-matrix and Applications. *JOURNAL OF SCIENTIFIC COMPUTING*, 2018, 74(3):1706-1724.
42. Yixiang Luo, Jie Xu and Pingwen Zhang. A Fast Algorithm for the Moments of Bingham Distribution. *JOURNAL OF SCIENTIFIC COMPUTING*, 2018, 75(3):1337-1350.
43. Jie Xu, Fangfu Ye and Pingwen Zhang. A tensor model for nematic phases of bent-core molecules based on molecular theory. *Multiscale Modeling & Simulation*, 2018, 16(4):1581-1602.
44. Jie Xu and Pingwen Zhang. Onsager-theory-based dynamic model for nematic phases of bent-core molecules and star molecules. *Journal of Non-Newtonian Fluid Mechanics*, 2018, 251:43-55.
45. Jie Xu and Pingwen Zhang. Calculating Elastic Constants of Bent-Core Molecules from Onsager-Theory-Based Tensor Model. *LIQUID CRYSTALS*, 2018, 45(1):22-31.

46. Weihua Deng, Buyang Li, Wenyi Tian and Pingwen Zhang. Boundary Problems for the Fractional and Tempered Fractional Operators. *MULTISCALE MODEL. SIMUL.*, 2018, 16(1):125-149.
47. Dong An, Wei Wang and Pingwen Zhang. On equilibrium configurations of nematic liquid crystals droplet with anisotropic elastic energy. *Research in the Mathematical Sciences*, 2017, 4(1):1-18.
48. Yiwei Wang and Pingwen Zhang. Topological Defects in an Unconfined Nematic Fluid Induced by Single and Double Spherical Colloidal Particles. *Physical Review E*, 2017, 96(4):042702.
49. Zhiyuan Geng, Wei Wang, Pingwen Zhang and Zhifei Zhang. Stability of Half-Degree Point Defect Profiles for 2D Nematic Liquid-Crystals. *Discrete and Continuous Dynamical Systems*, 2017, 37(12):6227-6242.
50. Yongqiang Cai, Pingwen Zhang and An-Chang Shi. Liquid Crystalline Bilayers Self-Assembled from Rod-Coil Diblock Copolymers. *Soft Matters*, 2017, 13(26):4607-4615.
51. Yu Tong, Yiwei Wang and Pingwen Zhang. Defects Around a Spherical Particle in Cholesteric Liquid Crystals. *Numerical Mathematics-Theory Methods and Applications*, 2017, 10(2):205-221.
52. Jinhae Park, Wei Wang, Pingwen Zhang and Zhifei Zhang. On Minimizers for the Isotropic-Nematic Interface Problem. *Calculus of Variations and Partial Differential Equations*, 2017, 56(2):41.
53. Kai Jiang, Pingwen Zhang and An-Chang Shi. Stability of Icosahedral Quasicrystals in a Simple Model with Two-Length Scales. *J. Phys. Condens. Matter*, 2017, 29(12):124003.
54. Yang Qu, Ying Wei and Pingwen Zhang. Transition of Defect Patterns from 2D to 3D in Liquid Crystals. *Communications in Computational Physics*, 2017, 21(3):890-904.
55. Jie Xu and Pingwen Zhang. The Transmission of Symmetry of Liquid Crystals. *Communications in Mathematical Sciences*, 2017, 15(1):185-195.
56. Jie Xu, Chu Wang, An-Chang Shi and Pingwen Zhang. Computing Optimal Interfacial Structure of Modulated Phases. *Communications in Computational Physics*, 2017, 21(1):1-15.
57. Kai Jiang, Jiajun Tong and Pingwen Zhang. Stability of Soft Quasicrystals in a Coupled-Mode Swift-Hohenberg Model for Three-Component Systems. *Communications in Computational Physics*, 2016, 19(3):559-581.
58. Yucheng Hu, Yang Qu and Pingwen Zhang. On the Disclination Lines of Nematic Liquid Crystals. *Communications in Computational Physics*, 2016, 19(2):354-379.
59. Shiwei Ye, Pingwen Zhang and Je Z.Y. Chen. Nematic ordering of semi-flexible polymers confined on a toroidal surface. *Soft Matter*, 2016, 12(24):5438-5449.
60. Qin Liang, Kai Jiang and Pingwen Zhang. Efficient numerical schemes for solving the self-consistent field equations of flexible-semiflexible diblock copolymers. *Mathematical Methods in Applied Sciences*, 2015, 38(18):4553-4563.
61. Pingwen Zhang and An-Chang Shi. Application of Self-consistent Field Theory to Self-Assembled Bilayer Membrane. *Chinese Physics B*, 2015, 24(12):128707.
62. Kai Jiang, Jiajun Tong, Pingwen Zhang and An-Chang Shi. Stability of Two-Dimensional Soft Quasicrystals in Systems with Two Length Scales. *Physical Review E*, 2015, 92(4):042159.
63. Sirui Li, Wei Wang and Pingwen Zhang. Local Well-posedness and Small Deborah Limit of a Molecular-Based Q-Tensor System. *Discrete and Continuous Dynamical Systems - Series B*, 2015, 20(8):2611-2655.
64. Wei Wang, Pingwen Zhang and Zhifei Zhang. The Small Deborah Number Limit of the Doi-Onsager Equation to the Ericksen-Leslie Equation. *Communications on Pure and Applied Mathematics*, 2015, 68(8):1326-1398.
65. Kai Jiang, Weiquan Xu and Pingwen Zhang. Analytic Structure of the SCFT Energy Functional of Multicomponent Block Copolymers. *Communications in Computational Physics*, 2015, 17(5):1360-1387.

66. Honghu Liu, Taylan Sengul, Shouhong Wang and Pingwen Zhang. Dynamic Transitions and Pattern Formations for a Cahn-Hilliard Model with Long-Range Repulsive Interactions. *Communications in Mathematical Sciences*, 2015, 13(5):1289-1315.
67. Wei Wang, Pingwen Zhang and Zhifei Zhang. Rigorous Derivation from Landau-De Gennes Theory to Ericksen-Leslie Theory. *SIAM Journal on Mathematical Analysis*, 2015, 47(1):127-158.
68. Jiequn Han, Yi Luo, Wei Wang, Pingwen Zhang and Zhifei Zhang. From Microscopic Theory to Macroscopic Theory: a Systematic Study on Modeling for Liquid Crystals. *Archive for Rational Mechanics and Analysis*, 2015, 215(3):741-809.
69. Qin Liang, Shiwei Ye, Pingwen Zhang and Je Z.Y. Chen. Rigid Linear Particles Confined on a Spherical Surface: Phase Diagram of Nematic Defect States. *Journal of Chemical Physics*, 2014, 141(24):244901.
70. Weiquan Xu and Pingwen Zhang. Boundary Effects in Confined Copolymer System and Compressible SCFT Model. *Journal of Computational and Applied Mathematics*, 2014, 265:290-300.
71. Haoze Tan, Qi Liao and Pingwen Zhang. Conformation of Polyelectrolytes in Poor Solvents: Variational Approach and Quantitative Comparison with Scaling Predictions. *Journal of Chemical Physics*, 2014, 140(19):194905.
72. Hao Zhang, Kai Jiang and Pingwen Zhang. Dynamic Transition for Landau-Brazovskii Model. *Discrete and Continuous Dynamical Systems - Series B*, 2014, 19(2):607-627.
73. Jie Xu and Pingwen Zhang. From Microscopic Theory to Macroscopic Theory - Symmetries and Order Parameters of Rigid Molecules. *Science China: Mathematics*, 2014, 57(3):443-468.
74. Jinglong Zhu, Pingwen Zhang, Han Wang and Luigi Delle Site. Is There a Third Order Phase Transition for Supercritical Fluids?. *Journal of Chemical Physics*, 2014, 140(1):014502.
75. Kai Jiang and Pingwen Zhang. Numerical Methods for Quasicrystals. *Journal of Computational Physics*, 2014, 256:428-440.
76. Hong Cheng and Pingwen Zhang. A Tensor Model for Liquid Crystals on a Spherical Surface. *SCIENCE CHINA Mathematics*, 2013, 56(12):2549-2559.
77. Wei Wang, Pingwen Zhang and Zhifei Zhang. Well-Posedness of the Ericksen-Leslie System. *Archive for Rational Mechanics and Analysis*, 2013, 210(3):837-855.
78. Kai Jiang, Chu Wang, Yunqing Huang and Pingwen Zhang. Discovery of New Metastable Patterns in Diblock Copolymers. *Communications in Computational Physics*, 2013, 14(2):443-460.
79. Qin Liang, Jianfeng Li, Pingwen Zhang and Je Z.Y. Chen. Modified Diffusion Equation for the Wormlike-chain Statistics in Curvilinear Coordinates. *Journal of Chemical Physics*, 2013, 138(24):244910.
80. Weiquan Xu, Kai Jiang, Pingwen Zhang and An-Chang Shi. A Strategy to Explore Stable and Metastable Ordered Phases of Block Copolymers. *Journal of Physical Chemistry B*, 2013, 117(17):5296-5405.
81. Han Wang, Dan Hu and Pingwen Zhang. Measuring the Spontaneous Curvature of Bilayer Membranes by Molecular Dynamics Simulations. *Communications in Computational Physics*, 2013, 13(4):1093-1106.
82. Gai Liu, Gang Du, Tiao Lu, Xiaoyan Liu, Pingwen Zhang and Xing Zhang. Simulation Study of Quasi-Ballistic Transport in Asymmetric DG-MOSFET by Directly Solving Boltzmann Transport Equation. *IEEE Transactions on Nanotechnology*, 2013, 12(2):168-173.
83. Tiejun Li, Pingwen Zhang and Wei Zhang. Nucleation Rate Calculation for the Phase Transition of Diblock Copolymers under Stochastic Cahn-Hilliard Dynamics. *Multiscale Modeling & Simulation*, 2013, 11(1):385-409.
84. Peiwen Ji, Song Jiang and Pingwen Zhang. Computable Modeling (Chinese). *SCIENCE CHINA Mathematics*, 2012, 42(6):1-18.
85. Wei Zhang, Tiejun Li and Pingwen Zhang. Numerical Study for the Nucleation of One-Dimensional Stochastic Cahn-Hilliard Dynamics. *Communications in Mathematical Sciences*,

2012, 10(4):1105-1132.

86. Wei Wang, Pingwen Zhang and Zhifei Zhang. Well-Posedness of Hydrodynamics on the Moving Elastic Surface. *Archive for Rational Mechanics and Analysis*, 2012, 206(3):953-995.
87. Han Wang, Christof Schuette and Pingwen Zhang. Error estimate of short-range force calculation in inhomogeneous molecular systems. *Physical Review E*, 2012, 86(2):026704.
88. Han Wang, Pingwen Zhang and Christof Schuette. On the Numerical Accuracy of Ewald Smooth Particle Mesh Ewald and Staggered Mesh Ewald Methods for Correlated Molecular Systems. *Journal of Chemical Theory and Computation*, 2012, 8(9):3243-3256.
89. Han Wang, Site Luigi Delle and Pingwen Zhang. On the existence of a third-order phase transition beyond the Andrews critical point: A molecular dynamics study. *Journal of Chemical Physics*, 2011, 135:224506.
90. Tiao Lu, Gang Du, Xiaoyan Liu and Pingwen Zhang. A Finite Volume Method for the Multi Subband Boltzmann Equation with Realistic 2D Scattering in Double Gate MOSFETs. *Communications in Computational Physics*, 2011, 10:305-338.
91. Chu Wang, Kai Jiang, Pingwen Zhang and An-Chang Shi. Origin of epitaxies between ordered phases of block copolymers. *Soft Matter*, 2011, 7:10552-10555.
92. Jing Huang, Jilei Wu, Tiejun Li, Xinming Song, Bingzi Zhang, Pingwen Zhang and Xiaoying Zheng. Effect of exposure to trace elements in the soil on the prevalence of neural tube defects in a high-risk area of China. *Biomedical and Environmental Sciences*, 2011, 24:94-101.
93. Kai Jiang, Yunqing Huang and Pingwen Zhang. Spectral method for exploring patterns of diblock copolymers. *Journal of Computational Physics*, 2010, 229(20):7796-7805.
94. Dan Hu, Peng Song and Pingwen Zhang. Local Existence and Uniqueness of the Dynamical Equations of an Incompressible Membrane in Two-Dimensional Space. *Communications in Mathematical Sciences*, 2010, 8(3):783-796.
95. Xiuyuan Cheng, Ling Lin, Weinan E, Pingwen Zhang and An-Chang Shi. Nucleation of Ordered Phases in Block Copolymers. *Physical Review Letters*, 2010, 104(14):148301.
96. Ling Lin, Xiuyuan Cheng, Weinan E, An-Chang Shi and Pingwen Zhang. A numerical method for the study of nucleation of ordered phases. *Journal of Computational Physics*, 2010, 229(5):1797-1809.
97. Haijun Yu, Guanghua Ji and Pingwen Zhang. A Nonhomogeneous Kinetic Model of Liquid Crystal Polymers and Its Thermodynamic Closure Approximation. *Communications in Computational Physics*, 2010, 7(2):383-402.
98. Guanghua Ji, Haijun Yu and Pingwen Zhang. A Kinetic-Hydrodynamic Simulation of Liquid Crystalline Polymers Under Plane Shear Flow: 1+2 Dimensional Case. *Communications in Computational Physics*, 2008, 4(5):1194-1215.
99. Hui Zhang and Pingwen Zhang. On the New Multiscale Rodlike Model of Polymeric Fluids. *SIAM Journal on Mathematical Analysis*, 2008, 40(3):1246-1271.
100. Dongzhuo Zhou, An-Chang Shi and Pingwen Zhang. Numerical simulation of phase separation coupled with crystallization. *Journal of Chemical Physics*, 2008, 129(15):154901.
101. Yan Ding, Tiejun Li, Dongxiao Zhang and Pingwen Zhang. Adaptive Stroud stochastic collocation method for flow in random porous media via Karhunen-Loeve expansion. *Communications in Computational Physics*, 2008, 4(1):102-123.
102. Haiyan Jiang, Sihong Shou, Wei Cai and Pingwen Zhang. Boundary treatments in non-equilibrium Green's function (NEGF) methods for quantum transport in nano-MOSFETs. *Journal of Computational Physics*, 2008, 227(13):6553-6573.
103. Xia Ji, Wei Cai and Pingwen Zhang. Reflection/transmission characteristics of a discontinuous Galerkin method for Maxwell's equations in dispersive inhomogeneous media. *Journal of Computational Mathematics*, 2008, 26(3):347-364.
104. Peng Song and Pingwen Zhang. Numerical simulation of fluid membranes in two-dimensional space. *Communications in Computational Physics*, 2008, 3(4):794-821.
105. Pingwen Zhang and Xinwei Zhang. An efficient numerical method of Landau-Brazovskii model. *Journal of Computational Physics*, 2008, 227(11):5859-5870.

106. Han Wang, Kun Li and Pingwen Zhang. Crucial properties of the moment closure model FENE-QE. *Journal of Non-Newtonian Fluid Mechanics*, 2008, 150(2-3):80-92.
107. Lingyun Zhang, Hui Zhang and Pingwen Zhang. Global existence of weak solutions to the regularized Hookean dumbbell model. *Communications in Mathematical Sciences*, 2008, 6(1):85-124.
108. Guoxian Chen, Huazhong Tang and Pingwen Zhang. Second-order accurate Godunov scheme for multicomponent flows on moving triangular meshes. *Journal of Scientific Computing*, 2008, 34(1):64-86.
109. Guanghua Ji, Qi Wang, Pingwen Zhang, Hongyun Wang and Hong Zhou. Steady states and their stability of homogeneous rigid extended nematic polymers under imposed magnetic fields. *Communications in Mathematical Sciences*, 2007, 5(4):917-950.
110. Congmin Wu, Tiezhen Qian and Pingwen Zhang. Non-equilibrium molecular-dynamics measurement of the Leslie coefficients of a Gay-Berne nematic liquid crystal. *Liquid Crystals*, 2007, 34(10):1175-1184.
111. Hui Zhang and Pingwen Zhang. Stable dynamic states at the nematic liquid crystals in weak shear flow. *Physica D-Nonlinear Phenomena*, 2007, 232(2):156-165.
112. Dan Hu, Pingwen Zhang and Weinan E. Continuum theory of a moving membrane. *Physical Review E*, 2007, 75(4):041605.
113. Yana Di, Ruo Li, Tao Tang and Pingwen Zhang. Level set calculations for incompressible two-phase flows on a dynamically adaptive grid. *Journal of Scientific Computing*, 2007, 31(1-2):75-98.
114. Tiejun Li and Pingwen Zhang. Mathematical analysis of multi-scale models of complex fluids. *Communications in Mathematical Sciences*, 2007, 5(1):1-51.
115. Daming Li, Ruo Li and Pingwen Zhang. A cellular automaton technique for modelling of a binary dendritic growth with convection. *Applied Mathematical Modelling*, 2007, 31(6):971-982.
116. Haijun Yu and Pingwen Zhang. A kinetic-hydrodynamic simulation of microstructure of liquid crystal polymers in plane shear flow. *Journal of Non-Newtonian Fluid Mechanics*, 2007, 141(2-3):116-127.
117. Xia Ji, Wei Cai and Pingwen Zhang. High-order DGTD methods for dispersive Maxwell's equations and modeling of silver nanowire Coupling. *International Journal for Numerical Methods in Engineering*, 2007, 69:308-325.
118. Pingbing Ming and Pingwen Zhang. Analysis of the heterogeneous multiscale method for parabolic homogenization problems. *Mathematics of Computation*, 2007, 76(257):153-177.
119. Weinan E and Pingwen Zhang. A Molecular Kinetic Theory of Inhomogeneous Liquid Crystal Flow and the Small Deborah Number Limit. *Methods and Applications of Analysis*, 2006, 13(2):181-198.
120. Guanghua Ji, Qi Wang, Pingwen Zhang and Hong Zhou. Study of phase transition in homogeneous rigid extended nematics and magnetic suspensions using an order-reduction method. *Physics of Fluids*, 2006, 18(12):123103.
121. Yana Di, Ruo Li, Tao Tang and Pingwen Zhang. Moving mesh methods for singular problems on a sphere using perturbed harmonic mappings. *SIAM Journal on Scientific Computing*, 2006, 28:1490-1508.
122. Yana Di and Pingwen Zhang. Moving mesh kinetic simulation for sheared rodlike polymers with high potential intensities. *Communications in Computational Physics*, 2006, 1:859-873.
123. Dongzhuo Zhou, Pingwen Zhang and Weinan E. Modified models of polymer phase separation. *Physical Review E*, 2006, 73(6):061801.
124. Hui Zhang and Pingwen Zhang. Local existence for the FENE-dumbbell model of polymeric fluids. *Archive for Rational Mechanics and Analysis*, 2006, 181(2):373-400.
125. Tiejun Lin and Pingwen Zhang. Convergence analysis of BCF method for Hookean dumb-bell model with finite difference scheme. *Multiscale Modeling & Simulation*, 2006, 5(1):205-234.

126. Haiyang Jiang and Pingwen Zhang. Model analysis and parameter extraction for MOS capacitor including quantum mechanical effects. *Journal of Computational Mathematics*, 2006, 24(3):401-411.
127. Xia Ji, Tiao Lu, Wei Cai and Pingwen Zhang. Discontinuous Galerkin time domain (DGTD) methods for the study of 2-D waveguide-coupled microring resonators. *Journal of Lightwave Technology*, 2005, 23(11):3864-3874.
128. Hailiang Liu, Hui Zhang and Pingwen Zhang. Axial symmetry and classification of stationary solutions of Doi-Onsager equation on the sphere with Maier-Saupe potential. *Communications in Mathematical Sciences*, 2005, 3:201-218.
129. Yana Di, Ruo Li, Tao Tang and Pingwen Zhang. Moving mesh finite element methods for the incompressible Navier-Stokes equations. *SIAM Journal on Scientific Computing*, 2005, 26(3):1036-1056.
130. Tiao Lu, Wei Cai and Pingwen Zhang. Discontinuous Galerkin time-domain method for GPR simulation in dispersive media. *IEEE Transactions on Geoscience and Remote Sensing*, 2005, 43(1):72-80.
131. Weinan E, Pingbing Ming and Pingwen Zhang. Analysis of the heterogeneous multiscale method for elliptic homogenization problems. *Journal of the American Mathematical Society*, 2005, 18(1):121-156.
132. Tiao Lu, Wei Cai and Pingwen Zhang. Conservative local discontinuous Galerkin methods for time dependent Schrodinger equation. *International Journal of Numerical Analysis & Modeling*, 2005, 2(1):75-84.
133. Chong Luo, Hui Zhang and Pingwen Zhang. The structure of equilibrium solutions of one-dimensional Doi equation. *Nonlinearity*, 2005, 18:379-389.
134. Tiao Lu, Pingwen Zhang and Wei Cai. Discontinuous Galerkin methods for dispersive and lossy Maxwell's equations and PML boundary conditions. *Journal of Computational Physics*, 2004, 200(2):549-580.
135. Tiejun Li, Pingwen Zhang and Xiang Zhou. Analysis of 1+1 dimensional stochastic models of liquid crystal polymer flows. *Communications in Mathematical Sciences*, 2004, 2(2):295-316.
136. Tiejun Li, Eric Vanden-Eijnden, Pingwen Zhang and Weinan E. Stochastic models of polymeric fluids at small Deborah number. *Journal of Non-Newtonian Fluid Mechanics*, 2004, 121(2-3):117-125.
137. Tiejun Li, Hui Zhang and Pingwen Zhang. Local existence for the dumbbell model of polymeric fluids. *Communications in Partial Differential Equations*, 2004, 29(5-6):903-923.
138. Weinan E, Tiejun Li and Pingwen Zhang. Well-posedness for the dumbbell model of polymeric fluids. *Communications in mathematical physics*, 2004, 248(2):409-427.
139. Daming Li, Ruo Li and Pingwen Zhang. A new coupled model for alloy solidification. *Science in China series A-Mathematics. Suppl. S APR*, 2004, 47(1):41-52.
140. Hui Zhang and Pingwen Zhang. A theoretical and numerical study for the rod-like model of a polymeric fluid. *Journal of Computational Mathematics*, 2004, 22(2):319-330.
141. Yingxion Xiao, Shi Shu, Pingwen Zhang, Zeyao Mo and Jinchao Xu. A kind of semi-roaring AMG method for two dimensional energy equations with three temperatures. *Numerical Computation and Application of Computer*, 2003, 4:293-303.
142. Huazhong Tang, Tao Tang and Pingwen Zhang. An adaptive mesh redistribution method for nonlinear hamiltonian-jacobi equations in two- and three dimensions. *Journal of Computational Physics*, 2003, 188(2):543-572.
143. Pingwen Zhang, Yi Sun, Haiyan Jiang and Wei Yao. Multi-scale Methods for Inverse Modeling in 1-D Mos Capacitor. *Journal of Computational Mathematics*, 2003, 21(1):85-100.
144. Thomas Y. Hou, Gang Hu and Pingwen Zhang. Singularity Formulation in Three-dimensional Vortex Sheets. *Physics of Fluids*, 2003, 15(1):147-172.
145. Weinan E, Tiejun Li and Pingwen Zhang. Convergence of a stochastic method for the modeling of polymeric fluids. *Acta Mathematicae Applicatae Sinica English Series*, 2002, 18:529-536.

146. Q. Wang, W. E. C. Liu and P. Zhang. Kinetic Theories for Flows of Nonhomogeneous Rodlike Liquid Crystalline Polymers with a Nonlocal Intermolecular Potential. *Physical Review E*, 2002, 65(5):051504.
147. Zhenfu Xu and Pingwen Zhang. Stability of Boundary Integral Method for Water Wave. *Mathematica Numerica Sinica (Chinese)*, 2002, 24(3):311-318.
148. Rou Li, Tao Tang and Pingwen Zhang. A Moving Mesh Finite Element Algorithm for Singular Problems for Two and Three Space Dimensions. *Journal Computational Physics*, 2002, 177:365-393.
149. Thomas Y. Hou and Pingwen Zhang. Convergence of a Boundary Integral Method for 3-D Water Waves. *Discrete and Continuous Dynamical Systems Series B*, 2002, 2(1):1-34.
150. Pingwen Zhang and Xiaoming Zheng. Numerical Studies of 2D Free Surface Waves with Fixed Bottom. *Journal of Computational Mathematics*, 2002, 20(4):391-412.
151. Qiang Du, Dianzhong Li, Yiyi Li, Rou Li and Pingwen Zhang. Simulating A Double Casting Technique Using Level Set Method. *Computational Materials Science*, 2001, 22:200-212.
152. Tiejun Li and Pingwen Zhang. Numerical Studies of Shallow Water Waves on Slopping Beach with Artificial Boundary. *Mathematica Numerica Sinica (Chinese)*, 2001, 23(4):503-512.
153. Rou Li, Tao Tang and Pingwen Zhang. Moving Mesh Methods in Multiple Dimensions Based on Harmonic Maps. *Journal of Computational Physics*, 2001, 170:562-588.
154. B. Fu, Z. Yang, Y. Wang and P. Zhang. A Mathematical Model of Soil Moisture Spatial Distribution on the Hill Slopes of the Loess Plateau. *Science in China (series D)*, 2001, 44(5):395-402.
155. Thomas Y. Hou and Pingwen Zhang. A New Stability Technique for Boundary Integral Methods of Water Waves. *Math. Comp.*, 2001, 70(235):951-976.
156. Tao Tang, Weimin Xue and Pingwen Zhang. Analysis of Moving Mesh Methods Based on Geometrical Variables. *J. Comp. Math.*, 2001, 19(1):41-54.
157. Pingwen Zhang and Yu Zhang. Wavelet Method for Boundary Integral Equations. *J. Comput. Math.*, 2000, 18(1):25-42.
158. Long-an Ying and Pingwen Zhang. Vanishing Curvature Viscosity for Front propagation. *Journal of Differential Equations*, 2000, 161:289-306.
159. Thomas Y. Hou and Pingwen Zhang. Growth Rates for the Linearized Motion of 3-D Fluid Interfaces with Surface Tension Far from Equilibrium. *The Asian Journal of Mathematics*, 1998, 2(2).
160. Zhenhuan Teng and Pingwen Zhang. Optimal L1 Rate of Convergence for Viscosity Method and Monotone Scheme to Piecewise Constant Solution with Shocks. *SIAM Journal on Numerical Analysis*, 1997, 34(3).
161. Pingwen Zhang. Convergence of vortex with boundary element methods. *Journal of Computational Mathematics*, 1997, 15(2):127-137.
162. Pingwen Zhang. Convergence of vortex Methods in a bounded domain Using linear finite elements. *IMA Journal of Numerical Analysis*, 1996, 16:539-548.
163. Thomas Y. Hou, Zhenhuan Teng and Pingwen Zhang. Well-posedness for linearized motion of 3-D water waves far from equilibrium. *Communications in Partial Differential Equations*, 1996, 21(9&10):1551-1585.
164. Pingwen Zhang. Convergence of the point vortex methods for Euler equation on half plane. *Journal of Computational Mathematics*, 1996, 14(3):213-222.
165. Pingwen Zhang, Huaqi Liu and Yu Zhang. Computation of wavelet function. *Mathematica Numerica Sinica (Chinese)*, 1995, 2:173-185.
166. Zhenhuan Teng, Long-an Ying and Pingwen Zhang. Convergence of variable-elliptic-vortex method for Euler equations. *SIAM Journal on Numerical Analysis*, 1995, 32(3):754-774.
167. Pingwen Zhang. On vortex methods for initial boundary problems. *Northeast Mathematical Journal*, 1994, 10(2):256-266.
168. Pingwen Zhang. Convergence of vortex methods for Exterior problems. *Chinese Annals of Mathematics*, 1994, 15A(3):287-296.

169. Long-an Ying and Pingwen Zhang. Fully discrete convergence estimates for vortex methods in bounded domains. *SIAM Journal on Numerical Analysis*, 1994, 31(2):344-361.
170. Pingwen Zhang. A symmetrical viscous splitting schemes for Navier-Stokes equations. *Numerical Mathematics*, 1993, 1(1).
171. Pingwen Zhang. A family of viscous splitting schemes for Navier-Stokes equations. *Journal of Computational Mathematics*, 1993, 11(1):20-36.
172. Pingwen Zhang. A sharp estimate of simplified viscosity splitting scheme. *Journal of Computational Mathematics*, 1993, 11(3):295-210.
173. Pingwen Zhang. Exterior problem for the three-Dimensional Euler equation. *Journal of Partial Differential Equations*, 1992, 5(3).
174. Pingwen Zhang. Viscosity splitting with nonzero tangent boundary value. *Numerical Mathematics*, 1992, 14(2).
175. Pingwen Zhang. Viscous splitting for the exterior problem of Navier-Stokes equations. *Acta Scientiarum Naturalium Universitatis Pekinensis*, 1991, 27(3).