张平文

武汉大学校长，党委副书记，北京大学博雅讲席教授

邮编：100871 电话：86-10-6275-9851 传真：86-10-6275-1801

电子邮件：pzhang@pku.edu.cn 个人网页：https://www.math.pku.edu.cn/pzhang/en

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

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

研究领域

- 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	工业和应用数学学会会员
2016	发展中国家科学院院士
2015	中国科学院院士
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
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
2002	长江学者
1999	冯康科学计算奖

学术兼职

2022 -	北京大学博雅讲席教授
2022 -	中国教育发展战略学会教育帮扶专委会理事长
2016 -	中国工业与应用数学学会（CSIAM）理事长，学术委员会主席
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》

代表性论文

Modeling and Simulation of Soft Matter (Complex Fluids)

1. Lei Zhang, Pingwen Zhang, Xiangcheng Zheng. A model-free shrinking-dimer saddle dynamics for finding saddle point and solution landscape[J]. Japan Journal of Industrial and Applied Mathematics, 2023: 1-17.
2. Wei Wang, Lei Zhang, Pingwen Zhang (2021). Modeling and Computation of Liquid Crystals. Acta Numerica.
3. Jianyuan Yin, Yiwei Wang, Jeff Z. Y. Chen, Pingwen Zhang, Lei Zhang (2020). Construction of a Pathway Map on a Complicated Energy Landscape. Phys. Rev. Lett.

4. Jianyuan Yin, Lei Zhang, Pingwen Zhang (2019). High-index Optimization-based Shrinking Dimer Method for Finding High-Index Saddle Points. SIAM Journal on Scientific Computing.
5. Jie Xu, Fangfu Ye, Pingwen Zhang (2018). A TENSOR MODEL FOR NEMATIC PHASES OF BENT-CORE MOLECULES BASED ON MOLECULAR THEORY. MULTISCALE MODELING &SIMULATION.
6. Jiajie Chen, Pingwen Zhang, Zhifei Zhang (2018). Local minimizer and De Giorgi's type conjecture for the isotropic–nematic interface problem. calculus of Variations
7. Yongqiang Cai, Pingwen Zhang, An-Chang Shi (2017). Liquid Crystalline Bilayers Self-Assembled from Rod-Coil Diblock Copolymers. Soft Matters.
8. Jiequn Han, Yi Luo, Wei Wang, Pingwen Zhang, Zhifei Zhang, From Microscopic Theory to Macroscopic Theory: a Systematic Study on Modeling for Liquid Crystals, Archive for Rational Mechanics and Analysis, 215(3), 741-809, (2015)
9. Kai Jiang and Pingwen Zhang*, Numerical Methods for Quasicrystals, Journal of Computational Physics, 256, 428-440, (2014)*
10. *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, 117 (17), 5296-5405, (2013).*
11. *Chu Wang, Kai Jiang, Pingwen Zhang* and An-Chang Shi*, Origin of Epitaxies Between Ordered Phases of Block Copolymers, Soft Matter, 7, 10552-10555, (2011)*
12. *Kai Jiang, Yunqing Huang and Pingwen Zhang*, Spectral method for exploring patterns of diblock copolymers, Journal of Computational Physics, 229(20), 7796-7805, (2010)
13. Xiuyuan Cheng, Ling Lin, Weinan E, Pingwen Zhang* and An-Chang Shi*, Nucleation of Ordered Phases in Block Copolymers, Physical Review Letters, 104(14), 148301, (2010)*
14. *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, 229(5), 1797-1809, (2010)
15. Pingwen Zhang* and Xinwei Zhang, An efficient numerical method of Landau-Brazovskii model, Journal of Computational Physics, 227 (11), 5859-5870, (2008)
16. Dongzhuo Zhou, An-Chang Shi* and Pingwen Zhang*, Numerical simulation of phase separation coupled with crystallization, Journal of Chemical Physics, 129, 154901, (2008)*
17. *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, 141 (2-3): 116-127 Feb. 15 (2007)
18. Dongzhuo Zhou, Pingwen Zhang* and Weinan E*, Modified models of polymer phase separation, Physical Review E, 73 (6): Art. No. 061801 Part 1 Jun. (2006)

Applied Analysis and Numerical Analysis

1. 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, 68 (8), 1326-1398, (2015).
2. Wei Wang, Pingwen Zhang and Zhifei Zhang, Well-Posedness of the Ericksen-Leslie System, Archive for Rational Mechanics and Analysis, 210 (3), 837-855, (2013).
3. Tiejun Li and Pingwen Zhang, Mathematical analysis of multi-scale models of complex fluids, Communications in Mathematical Sciences, 5 (1): 1-51 Mar. (2007)
4. Hui Zhang and Pingwen Zhang, Local existence for the FENE-dumbbell model of polymeric fluids, Archive for Rational Mechanics and Analysis, 181 (2): 373-400 Jul. (2006)
5. 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, 3: 201-218, (2005)
6. Chong Luo, Hui Zhang and Pingwen Zhang, The structure of equilibrium solutions of one-dimensional Doi equation, Nonlinearity, 18, 379-389, (2005)

7. Weinan E, Pingbing Ming and Pingwen Zhang, Analysis of the heterogeneous multiscale method for elliptic homogenization problems, Journal of the American Mathematical Society 18 (1): 121-156, (2005)
8. Weinan E, Tiejun Li and Pingwen Zhang, Well-posedness for the dumbbell model of polymeric fluids, Communications in Mathematical Physics, 248 (2): 409-427, (2004)

Big Data Analysis and Application

1. Jie Song, Guannan He, Jianxiao Wang, Pingwen Zhang. Shaping future low-carbon energy and transportation systems: Digital technologies and applications[J]. iEnergy, 2022, 1(3): 285-305.
2. Chuansai Zhou, Haochen Li, Chen Yu, Jiangjiang Xia, Pingwen Zhang. A station-data-based model residual machine learning method for fine-grained meteorological grid prediction[J]. Applied Mathematics and Mechanics, 2022, 43(2): 155-166.
3. Wenjia Kong, Haochen Li, Chen Yu, Jiangjiang Xia, Yanyan Kang, Pingwen Zhang. A deep spatio-temporal forecasting model for multi-site weather prediction post-processing[J]. Communications in Computational Physics, 2022, 31(1): 131-153.
4. Chuansai Zhou, Wen Yuan, Jun Wang, Haiyong Xu, Yong Jiang, Xinmin Wang, Qiuzi Han Wen, Pingwen Zhang (2020). Detecting Suspected Epidemic Cases Using Trajectory Big Data. CSIAM Transactions on Applied Mathematics.
5. Haochen Li, Yu, Chen, Jiangjiang Xia, Yingchun Wang, Jiang Zhu, Pingwen Zhang (2019). A Model Output Machine Learning Method for Grid Temperature Forecasts in the Beijing Area. Advances in Atmospheric Sciences.