个人简历

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研究领域:复杂流体的可计算建模与高效算法研究、科学计

算与不确定性量化、计算流体力学、保险精算等

1. 学习经历

1994.09-1998.07 新疆大学数学与系统科学学院,基础数学专业,学士学位

1998.09-2001.07 新疆大学数学与系统科学学院,计算数学专业,硕士学位

2003.09-2007.04 西安交通大学理学院,数学专业,博士学位

2. 研究工作经历

1998.09-2001.12 新疆大学数学与系统科学学院,助教

2001.12-2007.09 新疆大学数学与系统科学学院,讲师

2007.03-2011.07 新疆大学数学学科博士后科研流动站,博士后

2007.09-2010.09 新疆大学数学与系统科学学院,副教授

2009.03-2010.03 韩国首尔国立大学数学系,博士后

2010.12- 新疆大学数学与系统科学学院,教授

2011.11-2013.11 香港浸会大学数学系,博士后

2014.07-2014.09 香港浸会大学数学系,访问研究员

2015.10-2016.02 巴西巴拉那联邦大学数学系,博士后

3. 学术兼职

中国准精算师(2007.03-至今)

中国核学会计算物理学会第六届理事会理事(2007.10-2016.12) 中国计算数学学会第八届、第九届理事会理事(2010.12-至今) 中国数学会理事(2015.10-至今)

4. 获奖与荣誉

2010 年获 教育部 霍英东教育基金高等院校青年教师奖三等奖

2013年入选教育部新世纪优秀人才支持计划

2013年入选自治区天山英才工程第二层次培养人选

2013年入选自治区杰出青年科技创新人才培养人选

2014年入选自治区"国家高层次人才特殊支持计划后备人选(科技创新领军人才)"

2015 年"不可压流体动力学方程高效算法及其应用"获自治区科学技术进步奖二等奖,排名第一

2015 年 获 自治区优秀共产党员荣誉称号

2016 年获第八届新疆青年科技奖

5.主持科研项目情况

国家自然科学基金:

- (1).面上项目"随机相场动力学模型不确定性量化的高精度数值方法",编号:11671345,时间: 2017.01-2020.12
- (2).面上项目"高分子复杂流体相分离动力学的数值模拟",编

- 号:11271313,时间: 2013.01-2016.12
- (3).地区科学基金项目"三维湍流风沙运动的数值模拟研究",编号:61163027,时间: 2012.01-2015.12
- (4).青年科学基金项目"不可压粘性流动问题的分数步长方法研究",编号: 10901131,时间: 2010.01-2012.12
- (5).天元基金项目"N-S方程隐式/显式数值格式的理论分析和算法实现",编号: 10726006,时间: 2008.01-2008.12

省部级:

- (1).教育部新世纪优秀人才支持计划"二元复杂流体相分离模型的高效算法研究",编号:NCET-13-0988,时间:2014.01-2016.12.
- (2).教育部科学技术研究重点项目"风沙气固两相湍流运动的数值模拟与分析",编号:212197,时间:2012.01-2014.12.
- (3). 自治区 杰出青年自然科学基金项目"复杂流体相分离的可计算建模和高效算法研究",编号:2013711010,时间:2013.07-2016.07.
- (4).自治区国家高层次人才特殊支持计划后备人选培养项目"复杂流体随机动力学行为的可计算建模和高效算法研究",时间:2015.09-2016.09.
- (5). 自治区自然科学基金项目"随机相场动力学模型与数值模拟", 编号: 2016D01C058, 时间: 2017.01-2019.12.
- (6).自治区科技支撑计划项目子课题"骆驼刺植被修复技术的数理模型研究",时间:2014.01-2016.12.
- (7).自治区自然科学基金项目"不可压缩流非协调有限元并行算法研究与软件研制",编号:2010211B04,时间:2010.05-2012.12.
- (8).中国博士后科学基金特别资助项目 (第4批), 编号: 201104702,

时间: 2012.01-2013.12.

- (9).中国博士后科学基金特别资助项目 (第1批),编号:200801448,时间:2009.01-2010.12.
- (10).中国博士后科学基金二等面上资助项目 (第 42 批),编号: 20070421155,时间: 2007.09-2010.12.
- (11).中国博士后科学基金二等面上资助项目 (第 51 批),编号: 2012M512056,时间: 2012.01-2013.12.

厅局级:

- (1). 自治区优秀博士后特别资助人员项目,时间: 2014.01-2016.12.
- (2). 自治区博士后科研资助经费项目,时间: 2008.08-2010.08.
- (3).自治区高校科研计划项目"不可压粘性流动问题的分数步长方法研究",编号: XJEDU2007S07,时间: 2008.01-2009.12.

其它:

- (1).克拉玛依市知识产权局项目"国家石油石化产业基地知识产权战略研究",编号: 2010002,时间: 2010.04-2011.04. (国家知识产权局软课题项目,编号: SS09-A-12)
- 5.已合作发表学术论文 140 余篇,其中SCI/EI论文 120 余篇 详细情况参见以下链接:

http://www.researcherid.com/rid/J-6155-2012

or

https://xue.glgoo.com/citations?hl=zh-CN&user=IFsz6agAAAAJ&view_op=list_works&sortby=pubdate

or

研究成果相继发表在 SIAM Journal on Scientific Computing, Mathematics of Computation, Computer Methods in Applied Mechanics and Engineering, Journal of Computational Physics, Journal of Scientific Computing, Numerical Methods for Partial Differential Equations, Discrete and Continuous Dynamical System, International Journal of Heat and Mass Transfer 等国际期刊。

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- 128 Yuanyang Qiao, Shuying Zhai, and **Xinlong Feng**, RBF-FD method for the high dimensional time fractional convection-diffusion equation, International Communications in Heat and Mass Transfer, Article in Press, 2017.
- 127 Ruijian He, **Xinlong Feng**, and Zhangxin Chen. H1-Superconvergence of a Difference Finite Element Method Based on the P1–P1-conforming Element on Non-uniform Meshes for the 3D Poisson Equation., Mathematics of Computation, Article in Press, 2017.
- 126 Ning Li, HaiyanSu, DongweiGui, and **Xinlong Feng**, Multiquadric RBF-FD method for the convection-dominated diffusion problems base on Shishkin nodes, International Journal of Heat and Mass Transfer, 2018, 118:734-745.
- 125 Qin Zhang, Haiyan Su, and **Xinlong Feng**, A partitioned finite element scheme based on Gauge-Uzawa method for time-dependent MHD equations, Numerical Algorithms, 2017: 1-19.
- 124 Jingwei Li, Shuying Zhai, Zhifeng Weng, and Xinlong Feng,

- H-Adaptive RBF-FD method for the high-dimensional convection -diffusion equation, International Communications in Heat and Mass Transfer, 2017, 89: 139-146.
- 123 Xingdong Zhang and **Xinlong Feng**, The Hermitian Positive Definite Solution of the Nonlinear Matrix Equation, International Journal of Nonlinear Sciences and Numerical Simulation, 2017, 18(5): 293-301.
- 122 Gang Peng, Jianping Zhao, and **Xinlong Feng**, Operator-splitting method for 2D/3D parabolic equation via finite element method, Mathematical Reports, 2017, 19(69): 381-397.
- 121 Xufeng Xiao, Xinlong Feng, and Jinyun Yuan, The stabilized semi-implicit finite element method for the surface Allen-Cahn equation, Discrete Contin. Dyn. Syst. Ser. B., 2017, 22(7): 2857-2877.
- 120 Jilian Wu, Jie Shen, and **Xinlong Feng**. Unconditionally stable Gauge–Uzawa finite element schemes for incompressible natural convection problems with variable density, Journal of Computational Physics, 2017, 348: 776-789.
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- 118 J. Xue, D. Gui, J. Lei, H. Sun, F. Zeng, and **X. Feng.** A hybrid Bayesian network approach for trade-offs between environmental flows and agricultural water using dynamic discretization. Advances in Water Resources, Online, 2017.
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- 115 Haiyan Su, **Xinlong Feng**, and Yinnian He. Second order fully discrete defect-correction scheme for nonstationary conduction-

- convection problem at high Reynolds number. Numerical Methods for Partial Differential Equations, 2017, 33(3): 681-703.
- 114 Lingzhi Qian, Jingru Chen, and **Xinlong Feng**. Local projection stabilized and characteristic decoupled scheme for the fluid–fluid interaction problems. Numerical Methods for Partial Differential Equations, 2017, 33(3): 704-723.
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- 98 Haiyan Su, **Xinlong Feng** and Pengzhan Huang. Iterative methods in penalty finite element discretization for the steady MHD equations. Computer Methods in Applied Mechanics and Engineering, 304 (2016): 521-545.

- 97 Ning Li, Jianping Zhao, **Xinlong Feng**, and Dongwei Gui. Generalized polynomial chaos for the convection diffusion equation with uncertainty. International Journal of Heat and Mass Transfer, 97 (2016): 289-300.
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- 95 Shuying Zhai, Zhifeng Weng, and **Xinlong Feng**. Fast explicit operator splitting method and time-step adaptivity for fractional non-local Allen–Cahn model. Applied Mathematical Modelling, 40(2)(2016): 1315-1324.
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- 93 Xiaohui Hu, Pengzhan Huang, and **Xinlong Feng**. A new mixed finite element method based on the Crank-Nicolson scheme for Burgers' equation. Applications of Mathematics, 61(1) (2016): 27-45.
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- **91 Xinlong Feng**, Tao Tang, and Jiang Yang. Long time numerical simulations for phase-field problems using p-adaptive spectral deferred correction methods. SIAM Journal on Scientific Computing, 37(1) (2015): A271-A294.
- 90 Shuying Zhai, Zhifeng Weng, and **Xinlong Feng**. An adaptive local grid refinement method for 2D diffusion equation with variable coefficients based on block-centered finite differences. Applied Mathematics and Computation, 268 (2015): 284-294.
- 89 Jie Xue, Dongwei Gui, Ying Zhao, Jiaqiang Lei, **Xinlong Feng**, et al. Quantification of Environmental Flow Requirements to Support Ecosystem Services of Oasis Areas: A Case Study in Tarim Basin, Northwest China. Water, 7(10) (2015): 5657-5675.

- 88 Lingzhi Qian, Huiping Cai, **Xinlong Feng**, and Dongwei Gui. The characteristic subgrid artificial viscosity stabilized finite element method for the nonstationary Navier–Stokes equations. International Communications in Heat and Mass Transfer, 65 (2015): 37-46.
- 87 Shuying Zhai, Leilei Wei, Langyang Huang, and **Xinlong Feng**. An Efficient Algorithm with High Accuracy for Time-Space Fractional Heat Equations. Numerical Heat Transfer, Part B: Fundamentals, 67(6) (2015): 550-562.
- 86 Zhifeng Weng, Shuying Zhai, and **Xinlong Feng**. An improved two-grid finite element method for the Steklov eigenvalue problem. Applied Mathematical Modelling, 39(10) (2015): 2962-2972.
- 85 Pengzhan Huang, **Xinlong Feng**, and Yinnian He. An efficient two-step algorithm for the incompressible flow problem. Advances in Computational Mathematics, 41(6) (2015): 1059-1077.
- 84 Jilian Wu, Dongwei Gui, Demin Liu, and **Xinlong Feng**. The characteristic variational multiscale method for time dependent conduction—convection problems. International Communications in Heat and Mass Transfer, 68 (2015): 58-68.
- 83 Zhiyong Si, Yunxia Wang, and **Xinlong Feng**. Modified Method of Characteristics Variational Multiscale Finite Element Method for Time Dependent Navier-Stokes Problems. Mathematical Modelling and Analysis, 20(5) (2015): 658-680.
- 82 Shuying Zhai, Dongwei Gui, Pengzhan Huang, **Xinlong Feng**. A novel high-order ADI method for 3D fractional convection—diffusion equations. International Communications in Heat and Mass Transfer, 66 (2015): 212-217.
- 81 Ning Li, Bo Meng, **Xinlong Feng**, and Dongwei Gui. A Numerical Comparison of Finite Difference and Finite Element Methods for a Stochastic Differential Equation with Polynomial Chaos. East Asian Journal on Applied Mathematics, 5(2) (2015): 192-208.
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- 79 Shuying Zhai, Zhifeng Weng, Dongwei Gui and **Xinlong Feng**. High-order compact operator splitting method for three-dimensional fractional equation with subdiffusion. International Journal of Heat and Mass Transfer, 84 (2015): 440-447.
- 78 Shuying Zhai, Lingzhi Qian, Dongwei Gui and **Xinlong Feng**. A block-centered characteristic finite difference method for convection -dominated diffusion equation." International Communications in Heat and Mass Transfer, 61 (2015): 1-7.
- 77 Binbin Du, Haiyan Su, and **Xinlong Feng**. Two-level variational multiscale method based on the decoupling approach for the natural convection problem. International Communications in Heat and Mass Transfer, 61 (2015): 128-139.
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- 75 Jilian Wu, Pengzhan Huang, and **Xinlong Feng**. A New Variational Multiscale FEM for the Steady-State Natural Convection Problem with Bubble Stabilization. Numerical Heat Transfer, Part A: Applications, 68(7) (2015): 777-796.
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- 69 Shuying Zhai, **Xinlong Feng**, and Yinnian He. An unconditionally stable compact ADI method for three-dimensional time-fractional convection–diffusion equation. Journal of Computational Physics, 269 (2014): 138-155.
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- 67 Shuying Zhai, **Xinlong Feng**, and Yinnian He. A New High-Order Compact ADI Method for 3-D Unsteady Convection-Diffusion Problems with Discontinuous Coefficients. Numerical Heat Transfer, Part B: Fundamentals, 65(4) (2014): 376-391.
- 66 Haiyan Su, Pengzhan Huang, Juan Wen, and **Xinlong Feng**. Three Iterative Finite Element Methods for the Stationary Smagorinsky Model. East Asian Journal on Applied Mathematics 4(2) (2014): 132-151.
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- 61 Pengzhan Huang, Jianping Zhao, and **Xinlong Feng**. An Oseen scheme for the conduction–convection equations based on a stabilized nonconforming method. Applied Mathematical Modelling, 38(2)(2014): 535-547.
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- 58 Haiyan Su, Dongwei Gui, Pengzhan Huang, and **Xinlong Feng**. Two-Level Stabilized, Nonconforming Finite-Element Algorithms for the Stationary Conduction -Convection Equations. Numerical Heat Transfer, Part B: Fundamentals, 66(3) (2014): 211-242.
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- 51 Haiyan Su, Pengzhan Huang, and **Xinlong Feng**. Two-level stabilized nonconforming finite element method for the Stokes equations. Applications of Mathematics, 58(6) (2013): 643-656.
- 50 Zhifeng Weng, **Xinlong Feng**, and Demin Liu. A two-grid stabilized mixed finite element method for semilinear elliptic equations. Applied Mathematical Modelling, 37(10) (2013): 7037-7046.
- 49 Zhifeng Weng, **Xinlong Feng,** and Shuying Zhai. Analysis of two-grid method for semi-linear elliptic equations by new mixed finite element scheme. Applied Mathematics and Computation, 219(9) (2013): 4826-4835.
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