

Applied Mathematics



Name: Xueli Song

Title: Professor

E-mail: xlsung@chd.edu.cn

Educational Background:

2002-2007 Ph.D. Xi'an Jiaotong University

1998-2002 B.S. Xinyang Normal University

Research direction: Qualitative theory of ordinary differential equations ;
Microeconomics and artificial neural networks; Image registration based on
statistical method; Image change detection ; Statistical process control.

Key words: Stability, Neural networks , Image change detection.



Name: Tailei Zhang

Title: Professor

E-mail: tlzhang@chd.edu.cn

Educational Background:

2005 – 2008 Ph. D. , Xinjiang University

2002 – 2005 M. D. , Xi'an Jiaotong University,

1998 – 2002 B.S. Xinjiang University

Research direction:: Ordinary Differential Equations and its Applications,
Mathematical Biology

Key words: Threshold Dynamics, Epidemic Modeling, Population Models



Name:Anguo Dong

Title: Professor

E-mail:309005077@qq.com

Educational Background:

Ph.D in Computational Mathematics

Research direction: Numerical Algebra, Spatial
Data Mining, Digital Image Processing

Applied Mathematics



Name: Yuzhu Xiao

Title: Associate professor

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Education Background:

Ph.D in Applied mathematics

Research direction: Nonlinear dynamical system

Key words: Chaos, Complex network



Name: Wei Xiao

Title: Associate Professor

E-mail: xiaowei1802002@chd.edu.cn

Educational Background:

Ph.D.in mathematics, Shanghai University

Research direction: Nonlinear Partial Differential Equations

Key words: Nonlinear hyperbolic conservation laws, Shock wave theory

Nonlinear PDEs of mixed type



Name: Ziling Heng

Title: Associate Professor

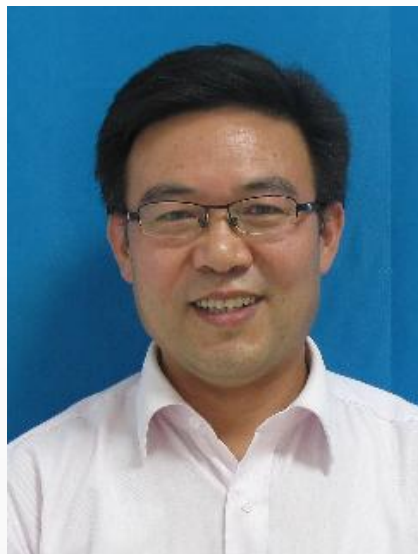
E-mail: zilingheng@chd.edu.cn

Educational Background: Ph.D

Research direction: Coding theory

Key words: linear codes, cyclic codes

Computational Mathematics



Name: Jianhu Feng

Title: Professor

E-mail: jhfeng@chd.edu.cn

Educational Background:

Ph. D in Northwestern Polytechnical University

M.S. in Northwestern Polytechnical University

B.S. in Northwest University

Research direction: Scientific and Engineering Computation;
Computational Fluid Dynamics; Numerical Methods for Partial
Differential Equations; Numerical Analysis; Intelligent optimization
algorithm

Key words: Computational Mathematics , CFD , Numerical Analysis



Name: Supei Zheng

Title: Associate professor

E-mail: zsp2008@chd.edu.cn

Educational Background

Ph.D in Northwestern Polytechnical University.

M.S. in Northwestern Polytechnical University

B.S. in Xinyang Normal College.

Research direction: Numerical solution for PDE, CFD

Key words: Entropy stable schemes, Adaptive moving mesh method,
hyperbolic conservation laws, moving free interface.

Statistics



Name: Jianmin Ma

Title: Professor

E-mail: majianmin@chd.edu.cn

Ph. D. Xi'an Jiaotong University

M.S. Guangxi University

B.S. Qufu Normal University

Research area or direction: Applied Mathematics ; Uncertainty in Statistics;
Artificial Intelligent

Key words: granular computing , rough set , formal concept analysis ,
uncertainty in statistic



Name: Tianjun Wu

Title: Associate Professor

E-mail: tjwu@chd.edu.cn

Educational Background:

Ph.D. in Chinese Academy of Sciences

M.S. in Chang'an University

B.S. in Chang'an University

Research direction: Intelligent Computing of Remote Sensing Big Data

Key words: Geographic Information Science, Remote Sensing,
Artificial Intelligence



Name: Changpeng Wang

Title: Associate Professor

E-mail: cpwang@chd.edu.cn

Major: Applied Mathematics/ Statistics

Educational Background:

the B.S., M.S. and Ph.D. degrees in Applied

Mathematics from the Xi'an

Research direction: Pattern Recognition, Image Processing, Machine Learning

Key words: Clustering, Classification, Data Representation.

Mechanics



Name: Huanwen Shi

Title: Professor

E-mail: hwshi@chd.edu.cn

Educational Background:

Ph.D. in Acoustics, Shaanx Normal University,

M.S. in Acoustics, Shaanx Normal University

B.S. in Physics, Shaanx Normal University

Research direction: Control of vibration and sound; prediction and control of environmental vibration and noise

Key words: noise; vibration; prediction; control; FEM/BEM.



Name: Hongyan Zhang

Title: Professor

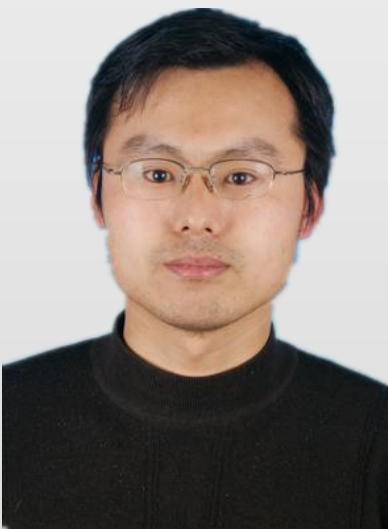
E-mail: zhanghongyan@chd.edu.cn

Educational Background:

Ph.D in Engineering Mechanics/Solid Mechanics

Research direction: nonlinear mechanical behavior, vibration control of smart structures

Key words: vibration control; nonlinear behavior; metamaterials



Name: Zhaoyang Hou

Title: Professor

E-mail: zhaoyanghou@163.com

Educational Background: PhD

Research direction: Micro and Nano Mechanics

Key words: Nanostructure, Mechanics, Simulation

Mechanics



Name: Gang Shi

Title: Professor

E-mail: shigang@chd.edu.cn

Educational Background: Ph.D

Research direction: Engineering Mechanics

Key words: Roadbed, Nondestructive Testing



Name: Qingtian Deng

Title: Associate Professor

E-mail: dengqt@chd.edu.cn

Educational Background: Ph.D

Research direction: Solid Mechanics

Key words: Lattice metamaterials, Cellular structures



Name: An He


Title: Associate Professor

E-mail: hean@chd.edu.cn

Educational Background: Ph.D

Research direction: Mechanics of Electromagnetic solid

Key words: Multi-physics field coupling 、 Scientific computing
Superconductor vortices

	Name: Lingyu Song
	Division: Department of Mathematics
	Position: Professor, Graduate supervisor
	Research: Partial differential equation theory and numerical Computing.
	Address: School of Science, Chang'an University, Xi'an 710064, PR China
	E-mail: sly779911@chd.edu.cn

Biography (个人简介)

a. Education (教育背景)

- Ph.D. in Computational Mathematics, March 2009. School of Mathematics and Statistics, Xi'an Jiaotong University, P.R. China.
- M.Sc. in Fundamental Mathematics, January 2002. College of Science, Northwest Normal University, P.R. China.
- B.Sc. in Mathematics, September 1989. College of Science, Northwest Normal University, P.R. China.

b. Visiting (访问学者)

Visiting scholar, Department of Applied and Computational Mathematics and Statistics, University of Notre Dame, USA, October 2011 - October 2012.

Courses of Teaching (所教课程)

Courses for Graduate Students:

1. Finite Element Method for Partial Differential Equations
2. Numerical analysis
3. Qualitative and stability theory of ordinary differential equations
4. Numerical solution of differential equations

Courses for Undergraduate Students:

5. Stability theory of ordinary differential equations
6. Ordinary differential equations
7. Software Packages of Mathematics
8. Linear Algebra
9. Computer geometry design and graphics
10. Advanced Mathematics I
11. Advanced Mathematics II
12. Calculation Method
13. Special Functions

14. Advanced Algebra
15. Complex function
16. Equations of Mathematics and Physics
17. Integral Transformation
18. Mathematical Physics Equations and Special Functions
19. Vector Analysis
20. Mathematical Physics Equations and Integral Transformation

Courses for International Undergraduate Students:

1. Advanced Mathematics I
2. Advanced Mathematics II
3. Linear Algebra

Research interests (研究方向)

1. Computational and Applied Mathematics.
2. Numerical Differential Equations.
3. Scientific Computing.
4. Finite element method.
5. Studies on bifurcation, traveling wavefronts and global attractor of some nonlinear evolution Equations.

Selected publications (代表性成果)

- [1] **LY Song**, YD Zhang, T Ma. Global attractor of a modified Swift–Hohenberg equation in H^k spaces, *Nonlinear Analysis: Theory, Methods and Applications*, 2010, 72: 183-191 (SCI: 000272573900018) .
- [2] **LY Song**, YD Zhang, T Ma. Global attractor of the Cahn-Hilliard equation in H^k spaces, *Journal of Mathematical Analysis and Applications*, 2009, 355: 53-62 (SCI: 000265801800006) .
- [3] **LY Song**, YN He, ZH Ge, Stability and bifurcation for a kind of nonlinear delayed differential equations, *Applied Mathematics and Computation*, 2007, 190: 677-685 (SCI: 000247803500067).

- [4] **LY Song**, YN He, YD Zhang, The existence of global attractors for semilinear parabolic equation in H^k spaces, *Nonlinear Analysis: Theory, Methods and Applications*, 2008, 68: 3541-3549(SCI: 000255809300028).
- [5] 宋灵宇, 武莉莉, 卢梦双, 重心插值配点法求解二维 Sobolev 方程, *西北师范大学学报(自然科学版)*, 2021, vol.57, No. 6: 31-44 (北大核心)
- [6] YD Zhang, **LY Song**, Axia W, Dynamical bifurcation for the Kuramoto-Sivashinsky equation, *Nonlinear Analysis: Theory, Methods and Applications*, 2011, 74: 1155-1163(SCI: 697FV) .
- [7] YD Zhang , **LY Song**, T Ma, The existence of global attractors for 2D Navier-Stokes equations in H^k spaces, *Acta Mathematica Sinica, English Series*, 2009, 25: 51-58(SCI: 382FD) .
- [8] ZH Ge, YN He, **LY Song** , Traveling wavefronts for a ratio-dependent predator-prey system with diffusion term and stage structure , *Nonlinear Analysis: Real World Applications*, 2009, 10: 1691-1701 (SCI: 423ZO) .
- [9] Zhihao Ge , Yinnian He, **Lingyu Song**, An inf-sup stabilized finite element method by multiscale functions for the Stokes equations, *Advances in Applied Mathematics and Mechanics*, 2009, 1: 273-287 (SCI: 709CX) .
- [10] 宋灵宇, 刘福民, 带导数项具有阶段结构的两种群捕食—食饵系统波前解的存在性, *工程数学学报*, 2011.10.15, Vol.28 No.5, 671-680 (核心期刊) .
- [11] 宋灵宇, 张雅荣, 最优站点问题的求解, *兰州理工大学学报*, 2012, vol.38, No.4: 143-146 (核心期刊)
- [12] 宋灵宇, 李晓莉, 一类静态梁方程的非负解与非正解, *长安大学学报(自然科学版)*, 2005.5 Vol.25 No.5 (EI 核心期刊) .
- [13] 宋灵宇, 一类四阶两点边值问题解的存在性, *陕西师范大学学报(自然科学版)*, 2003.2 Vol.31 No.2 . (核心期刊)

- [14] 宋灵宇, 带导数项的两端简单支撑的静态梁方程的正解, 甘肃工业大学学报, 2002.6 Vol.28 No.2. (核心期刊)
- [15] 宋灵宇, 张雅荣, 广义静态梁方程非负解的存在性, 纯粹数学与应用数学, 2011.4 Vol.27 No.4 (核心期刊)
- [16] 宋灵宇, 非齐次边值条件下一类静态梁方程非负解的存在性, 纯粹数学与应用数学, 2003.1 Vol.19 No.1. (核心期刊)
- [17] 孙海燕, 宋灵宇, 基于压力校正增量形式投影方法对舍哥氏力的 Navier-Stokes 方程的误差分析方法, 工程数学学报, 2011.4 Vol.28 No.4 (核心期刊).
- [18] 宋灵宇, 带导数项的一端固定另一端自由的静态梁方程正解的存在性, 甘肃教育学院学报 (自然科学版), 2002.1 Vol.16 No.1.