

Resume

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Education

Aug.2007 – Present	PhD	Applied Mathematics Department of Mathematics, Virginia Tech	GPA: 3.91
Sep.2003 – Jun.2006	M.S.	Computational Mathematics Department of mathematics, Sichuan University	GPA: 88.1/100
Sep.1999 – Jul.2003	B.S.	Information& Computational mathematics Department of mathematics, Sichuan University	GPA: 84.6/100

Research Experience

- **Proper Orthogonal Decomposition Method (POD)**
Currently, I am working with my advisor, Dr. Traian Iliescu on artificial viscosity Proper Orthogonal Decomposition models (AV-POD), which synthesize ideas stemming from LES and POD at Virginia Tech.
- **Finite Element Methods (FEM)**
 - 🍏 **FEM for N-S Fluid Flow**
In 2003, I joined a scientific research team studying “Research on High Performance Finite Element Methods for N-S Fluid Flow” led by Doctor Xie, Xiaoping and sponsored by National Natural Science foundation of China (NSFC).
 - 🍏 **Combined Hybrid Methods (CHM)**
Apply CHM, a new kind of FEM, in problems of membrane and plate in structural mechanics, and presented error analyses and estimations.
- **Numerical Quadrature Methods**
At present, I am a member of a research team in UESTC studying “Numerical Quadrature Methods to Integral Equations”.

Conference Presentations / Posters

- * SIAM Conference on Computational Science & Engineering (CSE09), Miami, March2-6, 2009.
- * Project/NExt/Young Mathematician's Network Poster Session in AMS Joint Mathematics Meeting, Washington, January, 2009.

Publications

- * Extrapolation Algorithms for Solving Mixed Boundary Integral Equations of the Helmholtz Equation by Mechanical Quadrature Methods.(with J. Huang), Submitted, 2009.
- * Artificial Viscosity Proper Orthogonal Decomposition, (with J. Borggaard and T. Iliescu), submitted, 2009.
- * Combined Hybrid method applied in Reissner-Mindlin Plate model, (with B. Hu), submitted, 2009.
- * Reduced-order modeling of turbulent flows", (with J. T. Borggaard, A. Duggleby, A. Hay, T. Iliescu), **In Proceedings of MTNS** , 2008.
- * Wang, Zhu, Hu, Bing, *Research of Combined Hybrid Methods Applied in the Reissner–Mindlin Plate*, **Applied Mathematics and Computation**, 182(2006),49-66.
- * Wang, Zhu, Hu, Bing and Xu, YouCai, *Partial Projection Methods Applied in the Reissner-Mindlin Plate Model (Chinese)*, Mathematics and its Application (Volume of technological academic theses, 2005), 157 – 162.
- * Hu, Bing and Wang, Zhu, *Improvement of the Selective Reduced Integration Element S_1 for the Reissner-Mindlin Plate (Chinese)*, Sichuan Daxue Xuebao, 43(2006), no.1,47-51.
- * Zhang, Yi Fan, Hu, Bing and Wang, Zhu, *Combined hybrid finite element methods for the Poisson equation (Chinese)*, Sichuan Daxue Xuebao 42 (2005), no.3, 467 – 470.
- * Wu, Yao Guo, Zhou, Jie and Wang, Zhu, *Parameter Estimation of Weibull Distribution Using the EM Algorithm Based on Randomly Censored Date (Chinese)*, Sichuan Daxue Xuebao 42 (2005), no 5, 910 – 913.
- * Xu, You Cai, Hu, Bing and Wang, Zhu, *Finite Differential Methods of the Price of American Put Options (Chinese)*, Mathematics and its Application (Volume of technological academic theses, 2005), 483 – 487.

Teaching Experience

UESTC (University of Electronic Science and technology of China)	Jul.2006 –Jul. 2007	Instructor of <i>Mathematical Modeling</i> <i>Mathematical Experiment</i> <i>Probability & Statistics</i> Advisor of <i>Mathematical Contest in Modeling</i>
Sichuan University	Sep.2003–Jul.2005 Jun.2005&Jun.2006	Teacher Assistant of <i>Calculus</i> Grading teacher of the college entrance exam of Sichuan Province in 2005 and 2006

Partly Awards

2008 – 2009	C. B. Ling Scholarship	Virginia Tech
Sep.2003 – Jun.2006	Excellent Graduate Medal (06) First prize of NPMCM in Nation for two consecutive years (04, 05)	Dept. of Education of Sichuan Province Contest committee