



师资队伍

- ❖ 师资介绍
- ❖ 教授名录
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何文明

## 何文明

添加时间 : 2012-04-13 10:38:46 浏览 :

个人简介 : 1972年6月出生于湖南衡山 , 1998年硕士毕业于东南大学应用数学系 (专业 : 计算数学 ) , 1998-2000年在湖南师范大学理学院工作 , 2000-2003年在中国科学院数学与系统科学研究院计算数学研究所攻读博士学位 , 导师为计算数学专家、工程软件专家中国工程院院士崔俊芝老师。毕业后一直在温州大学数学与信息科学学院工作 , 担任信息与计算科学教研室主任。2005年被评为副教授 , 2006年聘为硕士生导师 , 2010.1-2012. 1在浙江大学应用力学所做在职博士后。

担任课程 : 担任过的本科课程主要有 : 《计算机数值方法》、《数据结构》、《操作系统》、《离散数学》、《信息科学基础》、《数学模型与实验》、《高等数学》《泛函分析》。担任的研究生课程主要有 : 《偏微分方程》、《有限元方法》所讲授课程得到学生与同事的一致肯定。

研究方向 : 1 : 有限元方法。  
2 : 多尺度方法。  
3 : 智能材料的模拟与设计。

获奖情况 : 2004年入选温州市551人才工程第二层次与浙江省青年教师培养对象

近三年主持的课题 :  
1 : 国家基金面上项目 (2011年, 基金号11171257 , 经费46万)  
项目名称 : 多铁性材料及其结构性能预测的多尺度模型与数值模拟方法研究  
项 目 : 2 : 浙江省基金面上项目 (2009年, 基金号: Y6090108 , 经费6万)  
多铁性材料及其结构的模拟与设计  
3 : 中国博士后基金面上项目 (2009年, 基金号20090451454 , 经费3万)  
多铁性材料的性能调节

### 发表的主要论文

#### 多尺度方法的研究

- [1] W.M. He, J.Z. Cui, Error Estimate of the Homogenization Solution for Elliptic Problem with Periodic Coefficients on  $\mathbb{R}^n$  . SCIENCE CHINA Mathematics , 53 (2010) , 1231-1252(8)
- [2] W.M. He, J.Z. Cui, A pointwise estimate on the 1-order approximation of  $\mathbb{R}^n$  , IMA Journal of Numerical Analysis , 30 (2010) , 1231-1252(8)

- [3] W.M. He, J.Z. Cui, A finite element method for elliptic problems with rapidly oscillating coefficient  
BIT Numerical Mathematics, 47 (2007), 77-102 (SCI)
- [4] W.M. He , J.Z. Cui, A local error estimate for the method of multiscale asymptotic expansion  
for elliptic problem with rapidly oscillating coefficients, Journal of Mathematical Analysis and Applications, 329 (2007), 547-556 (SCI)
- [5] W.M. He, J.Z. Cui, A new approximate method for second order elliptic problems with  
rapidly oscillating coefficients based on the method of multiscale asymptotic  
expansions, Journal of Mathematical Analysis and Applications, 335 (2007), 657-668 (SCI)
- [6] W.M. He, J.Z. Cui, The Estimate of the Multi-scale Homogenization Method for Green's  
function on Sobolev space  $\boxed{|\mathbf{x}|^{-\alpha}}$ , Communication in Pure and Applied Analysis, Vol 11(2012)
- [7] W.M. He, J.Z. Cui, Asymptotic expansion method for the two point boundary value problem with  
small periodic structure, Applied Mathematics and Computation, 161 (2005) ,667-678 (SCI)
- [8] W.M. He, C.S. Lin, J.Z. Cui, Finite element approximation of Green function  $\boxed{|\mathbf{x}|^{-\alpha}}$  based on the  
method of multi-scale asymptotic expansions, Applied Mathematics and Computation, 174  
199-222 (SCI)
- [9] W.M. He, Asymptotic expansion method for some nonlinear two point boundary value problems  
with rapidly oscillating coefficients, Nonlinear Analysis: Real World Applications 8 (2007) ,1390-1405
- [10] W.M. He, Asymptotic expansions of one-dimensional second order Helmholtz equation with rapidly oscillating  
coefficient, Applied Mathematics and Computation ,188(2007), 1921-1929 (SCI)
- (2) 多尺度方法在材料力学的应用：
- [11] Wen-ming He, Hua Qiao,Wei-qiu Chen, Analytical solutions of heterogeneous rectangular plates  
with transverse small periodicity, Composites Part B: Engineering , 43 (2012) : 1056-1062  
(SCI二区)
- 论文  
清  
单：  
[12] W.M. He, X.F. Guan, The method of multiscale asymptotic expansions and its corresponding  
finite element algorithm for the problem of heat exchange in composite plane wall.  
International Journal of Modern Physics B, 24 (2010) ,3425-3438(SCI).
- [13] W.M. He, X.F. Guan, Xinjun Zhang, The method of multiscale asymptotic expansions for the  
problem of heat exchange in composite plane wall with stationary random fields,  
International Journal of Modern Physics B, Vol 25(2011), No.1, 143-151(SCI).

- [14] W.M. He , Y.P. Feng, X.F. Guan, Some estimates for a multiscale numerical method for second order elliptic problems with small periodic structures, International Journal of Modern Physics C (2011), No 20, 2729-2739(SCI).

( 3 ) 有限元超收敛算法的研究 :

- [15] W.M. He, Xiao-fei Guan, Jun-zhi Cui, The Local Superconvergence of the Trilinear Element for the Three-dimensional Poisson Problem,

J.Math. Anal. Appl., 388 ( 2012 ) : 863-872 (SCI2区)

- [16] W.M. He, W.Q. Chen, Q.D. Zhu, Local Superconvergence of the Derivative for Tensor-Product Block FEM, Numerical methods for partial differential Equations,

28 ( 2012 ) : 457-475(SCI)

- [17] 何文明, 崔俊芝, 朱起定, 一种改进的超收敛与外推的方法, 计算数学, 24 (2002) 327-334

- [18] 何文明, 崔俊芝, 关于求某些带小周期系数的微分方程在任意点的数值解的新方法, 计算数学, 25(2003),471-478

- [19] W.M. He, A New superconvergence and extrapolation for second order triangular element, Applied Mathematics and Computation, 174 (2006) ,300-315 (SCI)

- [20] 何文明, 崔俊芝, 某类特殊的椭圆型微分方程的高效蒙特卡罗算法, 系统科学与数学, 24(2004),210-217

- [21] W.M. He, Error estimates for finite element method about elliptic problem with singular right side, Applied Mathematics and Computation, 188 (2007) ,824-832 (SCI)

- [22] W.M. He, High effective finite element algorithm for elliptic partial differential equation, Applied Mathematics and Computation, 187 (2007), 1567-1573 (SCI)

- [23] Y.P. Feng , W.M. He , Uniform convergence of Hermite interpolation of higher order, Journal of Computational Mathematics, 21 (2003), 145-156 (SCI)