



师资队伍

姓名: 王东东

部门: 土木系

职称: 教授

简历: Ph.D., Civil Engineering, University of California, Los Angeles, 2003

研究方向与教学领域: 主要研究领域为计算力学和结构静动力高性能数值仿真分析, 已在国内外刊物与会议上发表论文八十余篇。目前主要研究方向有: 梁板壳结构的高效无网格算法; 结构非线性静动力分析方法和数值仿真; 岩土类材料的大变形非线性损伤破坏模拟; 材料力学性质的微宏观数值模拟; 循环荷载下钢结构与金属材料的疲劳破坏机理与数值模拟。

科研项目: 研究工作得到了国家自然科学基金等项目的资助。

论文专著:

Selected Publications:

Wang D., Chen J.S. and Sun L.Z., "Homogenization of magnetostrictive particle-filled elastomers using an interface-enriched reproducing kernel particle method", *Finite Elements in Analysis and Design*, 39, 765-782, 2003.

Wang D. and Chen J.S., "Locking-free stabilized conforming nodal integration for meshfree Mindlin-Reissner plate formulation", *Computer Methods in Applied Mechanics and Engineering*, 193, 1065-1083, 2004.

Chen J.S., Wang D. and Dong S.B., "An extended meshfree method for boundary value problems", *Computer Methods in Applied Mechanics and Engineering*, 193, 1085-1103, 2004.

Chen J.S., Kotta V., Lu H., Wang D., Moldovan D. and Wolf D., "A variational formulation and a double-grid method for meso-scale modeling of stressed grain growth in polycrystalline materials", *Computer Methods in Applied Mechanics and Engineering*, 193, 1277-1303, 2004.

Chen J.S. and Wang D., "Extended meshfree method for elastic and inelastic media", *Lecture Notes in Computational Science and Engineering*, 43, 17-38, 2005.

Lin T.H. and Wang D., "Incremental extrusion and intrusion with incremental fatigue loadings on single crystals", *International Journal of Fatigue*, 27, 1175-1178, 2005.

Wang D., Dong S.B. and Chen J.S., "Extended meshfree analysis of transverse and inplane loading of a laminated anisotropic plate of general planform geometry", *International Journal of Solids and Structures*, 43, 144-171, 2006.

Chen J.S. and Wang D., "A constrained reproducing kernel particle formulation for shear deformable shell in Cartesian coordinates", *International Journal for Numerical Methods in Engineering*, 68, 151-172, 2006.

Wang D. and Chen J.S., "A locking-free meshfree curved beam formulation with the

stabilized conforming nodal integration”, Computational Mechanics, 39, 83-90, 2006.

Zhang C., Wang D., Zhang J., Feng W. and Huang Q., “On the equivalence of various hybrid finite elements and a new orthogonalization method for explicit element stiffness formulation”, Finite Elements in Analysis and Design, 43, 321-332, 2007.

Wang D. and Lin T.H., “PQR model-based micromechanical analysis of hysteresis loops for single crystal fatigue: aspects of multi-axial loading, geometric effects and creep”, International Journal of Damage Mechanics, 17, 283-305, 2008

Wang D. and Wu Y., “An efficient Galerkin meshfree analysis of shear deformable cylindrical panels”, Interaction and Multiscale Mechanics, 1, 339-355, 2008.

Wang D. and Chen J.S., “A Hermite reproducing kernel approximation for thin plate analysis with sub-domain stabilized conforming integration”, International Journal for Numerical Methods in Engineering, 74, 368-390, 2008.

Wang D., Sun Y. and Li L., “A discontinuous Galerkin meshfree modeling of material interface”, CMES: Computer Modeling in Engineering & Sciences, 45, 57-82, 2009.

Wang H.P. and Wang D., “Efficient meshfree computation with fast treatment of essential boundary conditions for industrial applications”, Journal of Engineering Mechanics, ASCE, 135, 1147-1154, 2009.

Wang D. and Fang L., “A multiscale method for analysis of heterogeneous thin slabs with irreducible three dimensional microstructures”, Interaction and Multiscale Mechanics, 3, 213-234, 2010.

Wang D. and Lin Z., “Free vibration analysis of thin plates using Hermite reproducing kernel Galerkin meshfree method with sub-domain stabilized conforming integration”, Computational Mechanics, 46, 703-719, 2010.

Wang D. and Xuan J., “An improved NURBS-based isogeometric analysis with enhanced treatment of essential boundary conditions”, Computer Methods in Applied Mechanics and Engineering, 199, 2425-2436, 2010.

Zhang C., Wang D. and Li T., “Orthogonal basic deformation mode method for zero-energy mode suppression of hybrid stress elements”, Applied Mathematics and Mechanics, 32, 83-96, 2011.

Wang D., Li Z., Li L. and Wu Y., “Three dimensional efficient meshfree simulation of large deformation failure evolution in soil medium”, Science China-Technological Sciences, 54, 573-580, 2011.

Wang D. and Lin Z., “Dispersion and transient analyses of Hermite reproducing kernel Galerkin meshfree method with sub-domain stabilized conforming integration for thin beam and plate structures”, Computational Mechanics, 48, 47-63, 2011.

荣誉获奖:

入选教育部新世纪优秀人才支持计划, 2009.

厦门大学清源奖, 2008.

APACM Young Investigator Award, Asian-Pacific Association of Computational Mechanics, 2007.

2003-2004 Outstanding Ph.D. Award, Department of Civil and Environmental Engineering, University of California, Los Angeles, USA, 2004.

Finalist, The 14th Robert J. Melosh Competition for the Best Student Paper on Finite Element Analysis endorsed by the International Association for Computational Mechanics, Duke University, USA, 2002.

学术讲座:

Keynote/Invited Lectures:

Efficient Galerkin meshfree formulations for plates and shells using stabilized conforming integration method, The Third Asian-Pacific Congress on Computational Mechanics, Kyoto, Japan, Dec. 3-6, 2007.

Efficient meshfree large deformation simulation of rainfall induced soil slope failure, The Second International Symposium on Computational Mechanics, Hong Kong and Macao, China, Nov. 30-Dec. 3, 2009.

On dispersive features of Hermite reproducing kernel Galerkin meshfree method for thin plates, The 2010 International Conference on Computational Methods, Zhangjiajie, China, Nov. 19-21, 2010.

基于改进边界条件施加方式和应变光滑子域积分的NURBS有限元分析, 中国科协第223次青年科学家论坛“工程CAE软件平台开发中的关键技术”, 2010年11月17-19日, 湖南大学岳麓书院.

A three dimensional efficient Galerkin meshfree formulation for large deformation analysis of soil slope failure, The 2011 International Conference on Computational and Experimental Engineering & Sciences, Nanjing, China, Apr. 18-22, 2011.

学术兼职:

国际计算力学学会会员

国际华人计算力学学会执委会委员

中国力学学会计算力学专业委员会委员

福建省力学学会常务理事

福建省土木建筑学会理事

Member of Scientific Advisory Committee, The third International Symposium on Computational Mechanics (ISCM III) in conjunction with the second symposium on Computational Structural Engineering (CSE II), Taipei, China, Dec. 5-7, 2011.

Member of International Advisory Board, The Second International Symposium on Computational Mechanics (ISCM) and the Twelfth International Conference on the Enhancement and Promotion of Computational Methods in Engineering and Science (EPMESC XII), Hong Kong and Macau, China, Nov. 30 - Dec.3, 2009.

Co-Chair of Local Organizing Committee, International Symposium on Meshfree, Particle and Generalized/Extended Finite Element Methods, Nanjing, China, Oct. 12-16, 2009.

Member of Local Organizing Committee, ICCES Special Symposium on Meshless & Other Novel Computational Methods, Suzhou, China, Oct. 13-17, 2008.

Session Co-Chair, Symposium on Meshfree/Particle and Generalized/Extended Finite Element Methods, The Third Asian-Pacific Congress on Computational Mechanics in conjunction with The Eleventh International Conference on the Enhancement and Promotion of Computational Methods in Engineering and Science, Kyoto, Japan, December 3-6, 2007.

Member of Organizing Committee, The 2007 International Symposium on Computational Mechanics, Beijing, China, July 30-Aug. 1, 2007.

Member of Local Organizing Committee, The Second Asia-Pacific International Conference on Computational Methods in Engineering, Hefei, China, Nov. 14-18, 2006.