



ISSN 1007-4708
CODEN JLXIAB

计算力学学报

Chinese Journal of Computational Mechanics

第30卷 增刊
Vol.30 Supplement

增刊
2013

ISSN 1007-4708



9 771007 470004

万方数据

大连理工大学 主办
中国力学学会

计算力学学报

第 30 卷 增刊 2013 年 6 月

目 次

工程应用专题

- 大体积混凝土温度应力耦合直观化仿真计算系统 左 正, 胡 昱, 李庆斌, 等 (1-6)
- 储氢高压容器钢壁中氢的浓度分布规律研究 柳爱群, 杨 中, 杨 烨 (7-9, 15)
- 基于结构化网格的导管螺旋桨敞水性能计算和艇桨干扰分析 司朝善, 姚惠之, 张 楠 (10-15)
- 搅拌摩擦焊接残余应力及残余变形数值分析 张正伟, 张 昭, 张洪武 (16-21)
- 静不稳定空空导弹导轨发射机弹分离数值模拟 王晓鹏 (22-24, 40)
- 热点应力法在高速列车设计中的应用 金立翡, 张 昭 (25-28)
- 水力机组制动过程的分段递推数值解法 张成立, 曾 云, 于凤荣 (29-34)
- 不锈钢点焊车体性能仿真模型的有效性分析 谢素明, 郭宗斌, 高 阳 (35-40)

工程固体力学专题

- 厚壁圆筒的载荷特征与变形规律研究 寿列枫, 浦锡锋, 田 宙, 等 (41-45)
- 基于 Maxwell-Rivlin-Ericksen 理论的 MRM 本构关系的算法探究 孙 虎, 彭向和, 李海涛, 等 (46-49)
- 镁单晶低温压缩变形机制的原子模拟 俎 群, 郭雅芳, 汤笑之 (50-53)
- 镍涂层对碳纳米管/镁复合材料界面结合强度影响的分子动力学模拟 ... 周 霞, 吴少华, 张仁杰 (54-57)
- 辛奇异元方法与含裂纹结构加固问题分析 徐新生, 胡俊林, 贾宏志, 等 (58-61, 83)

计算结构动力学专题

- 旋转三角形绳系卫星编队系统动态稳定性分析 蔡志勤, 周 红, 李学府 (62-67)
- 爆炸产物发生化学反应对药室压力影响的研究 钟 巍, 张海波, 田 宙 (68-73)
- 弹性杆-刚性体系统动力学分析的广义逆矩阵方法 徐自然, 吴明儿 (74-78)
- 基于近场动力学理论的混凝土轴拉破坏过程模拟 沈 峰, 章 青, 黄 丹, 等 (79-83)
- 基于移动车载响应的连续梁损伤识别 黄 玲, 吕中荣, 刘济科 (84-87)
- 聚能射流形成数值模拟 黄 佳, 张 昭, 张洪武 (88-91)
- 谱元法研究桁架结构的振动带隙特性 吴志静, 李凤明, 王毅泽 (92-95)
- 双波护栏-汽车碰撞动力响应与吸能机理研究 邓明成, 姚国文, 贾黎丽, 等 (96-99)

双分裂导线相间间隔棒防舞效果数值模拟研究	杨 威,崔 伟,严 波,等(100-104)
六分裂导线试验线路双摆防舞器防舞效果数值模拟研究	杨晓辉,陆小刚,严 波,等(105-109)
基于线性多点逼近方法的结构局部非线性损伤识别	孙 国,田建勇,仲伟秋(110-115)

计算流体力学专题

D 形覆冰六分裂导线空气动力系数数值模拟	阎 东,蔡萌琦,陈 瑞,等(116-119)
不稳定伸展表面上的薄液膜流动分析	祁术娟,张 艳(120-123)
高温激波管化学非平衡流动数值模拟研究	李海燕,李志辉,陈爱国,等(124-129)
基于三角网格的四阶 Hermite 型对流守恒格式	郭 鸽,冯仁忠,胡 鹏(130-134)
应用于计算气动声学的优化有限紧致格式	杨 焱,申义庆(135-139,208)

流固耦合专题

超声速复合材料层合壁板结构的颤振特性分析	吕秀秀,李凤明,宋智广(140-143)
缝洞型多孔介质中多相流的有限体积法数值模拟	邸 元,彭 浪,WU Yu-shu,等(144-149)
基于区域分解的并行有限元程序及其在水下爆炸中的应用	姚成宝,郭永辉,张柏华,等(150-154)
考虑湍流模型的板片空间结构风荷载下流固耦合模拟	俞 媛,郭小明,靳天姣,等(155-158,163)
入水问题的 Euler-Lagrange 流固耦合数值模拟技术研究	浦锡锋,王仲琦,白春华,等(159-163)
无压渗流问题的混合自适应法	刘 丰,李春光,郑 宏(164-167,177)
岩体渗流及参数敏感性对块体稳定性影响研究	徐栋栋,郑 宏,邹爱清,等(168-173)
应用基于 GPU 的 SPH 方法模拟二维楔形体入水砰击问题	王 珏,邱流潮(174-177)

算法及软件开发专题

Zienkiewicz 薄板单元的数值流形法实现	刘治军,郑 宏,葛修润(178-182)
基于 ANSYS 二次开发的板片空间结构的参数化建模	靳天姣,郭小明,张迺龙,等(183-187)
非均质材料等效瞬态热传导时域分析	任 懿,杨海天,李建军(188-192)
基面力元法(BFEM)的研究及应用进展	彭一江,张丽娟,宗娜娜,等(193-198)
基于非结构任意多边形网格的滑移面计算技术	王瑞利,刘 全,林 忠(199-204)
双向粘弹性节理岩体时域等效分析	任 懿,杨海天,梁赞明(205-208)

辽宁省期刊增刊备案号[21137320131]

期刊基本参数:CN21-1373/O3 * 1984 * b * A4 * 208 * zh * P * ¥50.00 * 1300 * 43 * 2013-06

Chinese Journal of Computational Mechanics

Vol. 30 Supplement June 2013

CONTENTS

Special Topics on Engineering Application

- User-friendly thermal-stress coupled simulating platform of mass concrete
..... ZUO Zheng, HU Yu, LI Qing-bin, et al (1-6)
- Research into hydrogen content distribution in the steel wall of hydrogen deposited pressure vessel
..... LIU Ai-qun, YANG Zhong, YANG Ye (7-9,15)
- Numerical simulation of ducted propeller open water performance and hull/propeller interaction on
the basis of structured grid generation method SI Chao-shan, YAO Hui-zhi, ZHANG Nan (10-15)
- Investigations on residual stress and residual distortion of friction stir welding
..... ZHANG Zheng-wei, ZHANG Zhao, ZHANG Hong-wu (16-21)
- Numerical simulation on separation for statically unstable air-to-air missile by rail launch
..... WANG Xiao-peng (22-24,40)
- The application of hot spot stress method in design of high speed train JIN Li-fei, ZHANG Zhao (25-28)
- The segmenting recursion numerical solution method of hydropower unit braking process
..... ZHANG Cheng-li, ZENG Yun, YU Feng-rong (29-34)
- Validity analysis of performance simulation model for stainless steel spot welding carbody
..... XIE Su-ming, GUO Zong-bin, GAO Yang (35-40)

Special Topics on Engineering Solid Mechanics

- Deformation rule under loading character for thick-walled cylinder
..... SHOU Lie-feng, PU Xi-feng, TIAN Zhou, et al (41-45)
- The unification of M-R-E of MRM constitutive relations and arithmetic research
..... SUN Hu, PENG Xiang-he, LI Hai-tao, et al (46-49)
- Atomistic simulation of deformation in magnesium single crystal at low temperature under
compression ZU Qun, GUO Ya-fang, TANG Xiao-zhi (50-53)
- Molecular simulation of the influence of nickel coating on the interfacial bonding strength of
carbon nanotube/magnesium composites ZHOU Xia, WU Shao-hua, ZHANG Ren-jie (54-57)
- A method of symplectic singular element and its application for reinforcement of cracked
structures XU Xin-sheng, HU Jun-lin, JIA Hong-zhi, et al (58-61,83)

Special Topics on Computational Structure Dynamics

- Dynamic stability analysis of the rotating triangular tethered satellite formation
..... CAI Zhi-qin, ZHOU Hong, LI Xue-fu (62-67)
- Research on influence of chemical reactions of detonation products on chamber pressures
..... ZHONG Wei, ZHANG Hai-bo, TIAN Zhou (68-73)
- Generalized inverse matrix method for dynamics of multi-body system consisting of elastic
bars and rigid bodies XU Zi-ran, WU Ming-er (74-78)
- Damage and failure process of concrete structure under uni-axial tension based on peridynamics
modeling SHEN Feng, ZHANG Qing, HUANG Dan, et al (79-83)
- Damage identification in continuous beam based on dynamic response from moving vehicle loads
..... HUANG Ling, LÜ Zhong-rong, LIU Ji-ke (84-87)
- Numerical simulation of shaped charge formation HUANG Jia, ZHANG Zhao, ZHANG Hong-wu (88-91)

- Study on truss periodic structures with vibration band gap properties using the spectral element method WU Zhi-jing, LI Feng-ming, WANG Yi-ze (92-95)
- Study on the dynamic response and energy absorption mechanism of the double-wave guardrail under vehicle collision loading DENG Ming-cheng, YAO Guo-wen, JIA Li-li, et al (96-99)
- Numerical simulation study on anti-galloping of iced double split conductors with interphase-spacers YANG Wei, CUI Wei, YAN Bo, et al (100-104)
- Numerical simulation study on anti-galloping of test transmission line with double pendulum dampers YANG Xiao-hui, LU Xiao-gang, YAN Bo, et al (105-109)
- Structural local nonlinear damage identification using a multi-point approximations method SUN Guo, TIAN Jian-yong, ZHONG Wei-qiu (110-115)

Special Topics on Computational Fluid Mechanics

- Numerical simulation on aerodynamic coefficients of iced six bundled conductor with D-shape accretion YAN Dong, CAI Meng-qi, CHEN Rui, et al (116-119)
- Analysis of the flow of a liquid film on an unsteady stretching sheet ... QI Shu-juan, ZHANG Yan (120-123)
- Numerical simulation of chemical nonequilibrium flow in high temperature shock tube LI Hai-yan, LI Zhi-hui, CHEN Ai-guo, et al (124-129)
- A 4th-order conservative advection scheme on triangular meshes using Hermite interpolation GUO Ge, FENG Ren-zhong, HU Peng (130-134)
- Optimized finite compact scheme for computational aeroacoustics... YANG Yan, SHEN Yi-qing (135-139, 208)

Special Topics on Fluid-Solid Coupled Mechanics

- Flutter characteristic analysis of supersonic composite laminated panel LÜ Xiu-xiu, LI Feng-ming, SONG Zhi-guang (140-143)
- Numerical simulation of multiphase flow in fractured vuggy porous medium using finite volume method DI Yuan, PENG Lang, WU Yu-shu, et al (144-149)
- Parallel finite element code based on domain decomposition and it's application in underwater explosion YAO Cheng-bao, GUO Yong-hui, ZHANG Bai-hua, et al (150-154)
- Fluid-structure interaction simulation of half-sheet structure under wind load based on S-A turbulence model YU Yuan, GUO Xiao-ming, JIN Tian-jiao, et al (155-158, 163)
- An Euler-lagrange coupling method for numerical simulation of water entry PU Xi-feng, WANG Zhong-qi, BAI Chun-hua, et al (159-163)
- Mixed adaptive approach to unconfined seepage problems LIU Feng, LI Chun-guang, ZHENG Hong (164-167, 177)
- Effects of seepage in fractured rock and parameter sensitivity on the block stability XÜ Dong-dong, ZHENG Hong, WU Ai-qing, et al (168-173)
- Application of the GPU-based SPH method to the simulation of water entry of 2D wedge bodies WANG Jue, QIU Liu-chao (174-177)

Special Topics on Computational Method and Software Development

- Zienkiewicz's thin plate element in the context of numerical manifold method LIU Zhi-jun, ZHENG Hong, GE Xiu-run (178-182)
- Parametric modeling of sheet space structure on the secondary development of ANSYS JIN Tian-jiao, GUO Xiao-ming, ZHANG Nai-long, et al (183-187)
- Adaptive-equivalent transient heat conduction analysis of heterogeneous materiel in time domain REN Yi, YANG Hai-tian, LI Jian-jun (188-192)
- Research and application advances in base force element method (BFEM) PENG Yi-jiang, ZHANG Li-juan, ZONG Na-na, et al (193-198)
- Computational technique of sliding surface based on general unstructured polygonal mesh WANG Rui-li, LIU Quan, LIN Zhong (199-204)
- Equivalent analysis of orthogonal viscoelastic jointed rock REN Yi, YANG Hai-tian, LIANG Zan-ming (205-208)