

# 力 学 季 刊

第 31 卷第 2 期

2010 年 6 月

## 目 次

纳米柱绕流的分子动力学模拟分析 .....	高 阳,洪 俊(145)
广义密度演化方程与经典随机振动分析的比较研究 .....	彭勇波,陈建兵,李 杰(151)
应力偶流体的精确解 .....	张道祥,施吕蓉(159)
炮孔堵塞长度的计算与实验研究 .....	赵新涛,程贵海,冯国建(165)
利用格子 Boltzmann 方法数值模拟 Rayleigh-Benard 对流 .....	许鹤林,马建敏(172)
基于回传波射矩阵法的复合材料层合框架振动特性分析 .....	申雪静,孙国钧(179)
探讨生物体节律性步态运动的特点 .....	董 玮,王如彬,张志康(186)
具有大负分离比的混合流体局部行进波对流 .....	宁利中,齐 昕,王思怡,李国栋,周 倩,张淑芸(194)
压缩荷载作用下多裂纹的相互干涉 .....	莫宵依,解 敏,汤安民,王 静(201)
不可压缩流中机翼颤振稳定性研究 .....	郑国勇(207)
风场中长单索结构流固耦合效应的动力学分析 .....	王春江,陈 锋,周 岱(213)
超高压撞击流技术下制备破壁灵芝孢子的机理研究 .....	杨燕勤,潘家祯,李光霖(220)
弹性半空间地基上正交异性矩形板弯曲通解 .....	王春玲,周 亮(227)
摩擦因素对不同形状压头微压痕测试的影响 .....	江五贵, YAN C., 曲绍兴(236)
随机阻尼拍击振动的二级传动模型 .....	孙宜强,温建明,冯 奇(243)
功能梯度矩形板的非线性自由振动 .....	杜长城,李映辉(250)
地震波反演与土-结构动力相互作用分析 .....	阴光华,陈清军(256)
单向偏心粘弹性梁弯扭耦合振动复模态分析 .....	沈平川,王国砚(265)
一种改进的全局重要性测度 .....	许 鑫,吕震宙,袁修开(272)
国产正交主轴齿板连接节点各项承载力性能研究 .....	何桂荣,何敏娟,倪 骏,杨春梅(282)
线性强化材料弹塑性分析的自然单元法 .....	江 涛,章 青(288)
体外预应力混凝土梁的受弯承载力研究 .....	周建民,赵 勇,王红军,王 眺(297)
黏性土宏细观参数相关性研究 .....	陈建峰,李辉利,周 健(304)
平面桁架结构拓扑优化方法研究 .....	王仁华,赵宪忠,谢步瀛(310)

# CHINESE QUARTERLY OF MECHANICS

Vol. 31 No.2 June 2010

## CONTENTS

Molecular Dynamics Simulation Study on Cylinder Obstructed Fluid Flow .....	GAO Yang, HONG Jun (145)
Comparative Study of Generalized Density Evolution Equation and Classical Random Vibration Analysis .....	PENG Yong-bo, CHEN Jian-bing, LI Jie (151)
Exact Solutions of Couple Stress Fluids .....	ZHANG Dao-xiang, SHI Lü-rong (159)
Calculation and Experimental Study of Blast-hole Stemming Length .....	ZHAO Xin-tao, CHENG Gui-hai, FENG Guo-jian (165)
Numerical Simulation of Rayleigh-Benard Convection Using Lattice Boltzmann Method .....	XU He-lin, MA Jian-min (172)
Vibration Analysis of Laminated Composite Frames Based on Elastic Wave Theory .....	SHEN Xue-ying, SUN Guo-jun (179)
Explore the Characteristics of Rhythmic Gait Movement about Creature .....	WEI Dong, WANG Ru-bin, ZHANG Zhi-kang (186)
Localized Travelling Wave Convection in Binary Fluid Mixtures with a Largely Negative Separation Ratio .....	NING Li-zhong, QI Xin, WANG Si-yi, LI Guo-dong, ZHOU Qian, ZHANG Shu-yun (194)
Interactions of Multiple Cracks under Compression .....	MO Xiao-yi, XIE Min, TANG An-min, WANG Jing (201)
Stability Analysis of Airfoil Flutter in Incompressible Flow .....	ZHENG Guo-yong (207)
Dynamical Analysis of Fluid-structure Interaction for Long Single Cable Structures in Wind .....	WANG Chun-jiang, CHEN Feng, ZHOU Dai (213)
Study of Mechanism on Preparation of Sporoderm-broken Ganoderma Lucidum Spores by Ultra-high Pressure Impingement Streams .....	YANG Yan-qin, PAN Jia-zhen, LI Guang-ji (220)
General Solution of Orthotropic Rectangular Plate under Vertical Force on Semi-infinite Elastic Foundation .....	WANG Chun-ling, ZHOU Liang (227)
Friction Effect on Micro-indentation Measurement with Different Indenters .....	JIANG Wu-gui, YAN C., QU Shao-xing (236)
Two Stage Model on Rattling Vibration with Stochastic Damping .....	SUN Yi-qiang, WEN Jian-ming, FENG Qi (243)
Nonlinear Free Vibration of Functionally Graded Rectangular Plates .....	DU Chang-cheng, LI Ying-hui (250)
Inversion of Ground Motion and Analysis of Soil-structure Dynamic Interaction .....	YIN Guang-hua, CHEN Qing-jun (256)
Complex Modal Analysis of Bending-torsional Coupled Vibrations of Viscoelastic Beams with Single Cross-sectional Symmetry .....	SHEN Ping-chuan, WANG Guo-yan (265)
An Improved Global Uncertainty Importance Measure .....	XU Xin, LU Zhen-zhou, YUAN Xiu-kai (272)
Experimental on Load Bearing Capacity of Domestic Metal Plate with Orthogonal Oriented Teeth .....	HE Gui-rong, HE Min-juan, NI Jun, YANG Chun-mei (282)
Natural Element Method for Elasto-plastic Analysis of Linear Strain Hardening Material .....	JIANG Tao, ZHANG Qing (288)
Research on Flexural Capacity of External Prestressing Concrete Beams .....	ZHOU Jian-ming, ZHAO Yong, WANG Hong-jun, WANG Tiao (297)
Study on Relevance of Macro-micro Parameters for Clays .....	CHEN Jian-feng, LI Hui-li, ZHOU Jian (304)
Methodology Investigation on Topology Optimization of Planar Truss Structure .....	WANG Ren-hua, ZHAO Xian-zhong, XIE Bu-ying (310)