



$$(\lambda + \mu)u_{i,j} + \mu u_{k,l} + \rho(f_k - \ddot{u}_k) = 0 \quad M\ddot{x} + C\dot{x} + Kx = P(t)$$

$$(\lambda_v + \mu_v)v_{k,kl} = \mu_v v_{l,kk} - \pi_{,l} + \rho(f_l - \dot{v}_o) = 0$$

$$\frac{1}{2}(u_{i,j} + u_{j,i})$$

ISSN1000-4939
CN61-1112/O3

应用力学学报

CHINESE JOURNAL OF APPLIED MECHANICS

$$(\lambda + \mu)u_{i,j} + \mu u_{k,l} + \rho(f_k - \ddot{u}_k) = 0 \quad M\ddot{x} + C\dot{x} + Kx = P(t)$$

$$(\lambda_v + \mu_v)v_{k,kl} = \mu_v v_{l,kk} - \pi_{,l} + \rho(f_l - \dot{v}_o) = 0$$

2019

第36卷 第5期
Vol.36 No.5

ISSN 1000-4939



9 771000 493192

西安交通大学主办



应用力学学报

第 36 卷 第 5 期 总第 159 期

2019 年 10 月 15 日出版

目 次

载流线圈非均匀感应磁场中圆板的磁弹性固有振动	徐浩然 胡宇达(991)
高强钢筋钢纤维混凝土黏结应力分布计算方法	高丹盈 黄云超 金星 贾梦迪(998)
共轴双旋翼桨叶结构载荷试飞研究	程卫真(1005)
基于 LBM-LES 方法的翼型气动噪声直接数值计算	魏自言 刘勇 王琦(1012)
不同入口流量二沉池非牛顿液体/固体两相模拟	苏军伟 王乐 顾兆林 陈杰(1018)
存在定流量汇项的分数阶导数黏弹性饱和土体一维固结解析	李林忠 李培超 汪磊 孙德安(1026)
三自由度齿轮系统的双参数分岔与全局特性研究	王宗禄 朱凌云 苟向锋(1034)
二维正交异性位势问题高阶边界元几乎奇异积分半解析算法	胡斌 牛忠荣 胡宗军 丁信哲 孙学根(1042)
基于广义子空间追踪和强震观测的混凝土坝时变模态参数识别方法研究	程琳 仝飞 秦全乐 杨杰 郑东健(1049)
含螺型位错有限大一维六方压电准晶楔形体的反平面问题	崔晓微 李联和(1058)
混凝土抗压试验瞬态损伤演化过程超高速成像分析	覃源 张悦 张鲜维 柴军瑞(1063)
网架结构在山体滑坡冲击下的垮塌模拟分析	王孟鸿 赵要祥 郑晓彬(1069)
岩石单轴冲击加载破碎特征分析	唐志强 李皋 石祥超 李泽 彭尧 包恒(1076)
采用粉末冶金法制备 Ag_2MoO_4/Ag 自润滑涂层及其性能研究	丁春华 丁永超 李亚云(1082)
玄武岩纤维混凝土的耐碱腐蚀性及其力学性能试验研究	王振山 李浩炜 吴波 马晓明 马辉 田建勃(1088)
微纳通道中牛顿及非牛顿流体流动分析	胡长军 陈兴 邓益民 李德群(1096)
改进的坝肩动力稳定分析方法研究	李晓娜 赵杰 李同春 何金文(1104)
不同截面管廊在燃气爆炸作用下的动力响应分析	刘希亮 李焯 王新宇 郭佳奇(1111)
体育场阶梯型悬挑屋盖风荷载数值模拟研究	王辉 胡贤柱 桑立娟(1116)
电场作用下石英晶体板非线性高频振动分析	吴荣兴 于兰珍 李晓东 郑东 王骥(1123)
沙漠砂混凝土力学性能及应力-应变本构关系试验研究	李志强 王国庆 杨森 鞠冠男(1131)
轴向运动 SMA 层合梁的主共振分析	郝颖 胡宇达 张夏辉(1138)
卵形头弹体对素混凝土高速侵彻的实验研究	邓云飞 崔亚男 慕忠成 冯正兴 彭捷(1144)
基于统计能量法的油船舱室噪声预报与控制	张波 李凌芳 董晶瑾 吕秉琳 张文博(1152)
长径比对 TP2 铜管爆破压力影响的试验研究	杨帆 刘岑 张红卫 陈帆 范有雄 刘小宁(1160)
钻井-固井过程软泥岩井筒结构完整性分析	赵焯 张鹏伟 卫然 周博 薛世峰(1167)
随机振动载荷的传递路径分析研究	李鹏 李凯翔 潘凯(1175)
基于刚度系数折减率的软岩蠕变变形规律研究	赵娜 王来贵(1179)
一种微裂纹型拉伸损伤模型在混凝土材料中的应用	李平 李永池 段士伟(1183)
圆钢管 K 型弯管锥头节点轴向刚度曲线参数化分析	陈映 吴骏杨 申波 马克俭 刘盼盼 谢宗言(1190)
内爆炸爆轰产物运动过程二维数值模拟研究(二)——泄压空间	徐维铮 吴卫国(1199)
考虑墙体位移模式的成层土主动土压力研究	韩石 宋玉香 刘勇 张艳青(1205)
下部钻具组合稳定器的径向位置判断方法	郭宗禄 高德利 刘书杰(1212)
基于 van Genuchten 模型的非饱和土非线性抗剪强度研究	方薇 李万(1220)
炭黑颗粒增强橡胶界面脱粘单向拉伸力学行为研究	黄丽红 杨晓翔 高剑虹(1227)
两共面预制裂纹试样应力场特征与破坏模式研究	张志强 陈方方 李宁 丁晨曦 邹冠祺(1234)
一种随机振动信号幅度、相位及零基线漂移分离方法	张少刚 李芙蓉 赵小龙(1242)
UHMWPE 滚筒防冻黏材料上煤冻黏强度回归预测与影响因素分析	王春华 迟艺飞 安达 曲辉(1246)

英文摘要

(i~xvi)

期刊基本参数 CN61-1112/O3*1984*S*A4*280*zh*p*¥65*1000*38*2019-10

Chinese Journal of Applied Mechanics

Vol.36 No.5

Oct. 2019

CONTENTS

- Magnetoelastic natural vibration of a circular plate in the induced non-uniform magnetic field generated by a current-carrying coil Xu Haoran Hu Yuda (i)
- Calculation method of bond stress distribution of high strength steel bar and steel fiber reinforced concrete Gao Danying Huang Yunchao Jin Xing Jia Mengdi (i)
- Flight test technique for twin-rotor blade structural load of a coaxial helicopter Cheng Weizhen (i)
- Direct numerical simulation of airfoil aeroacoustic based on LBM-LES method Wei Ziyang Liu Yong Wang Qi (ii)
- Numerical simulation of solid/non-Newtonian liquid two-phase flow in secondary sedimentation tanks with different inlet flow rates Su Junwei Wang Le Gu Zhaolin Chen Jie (ii)
- Analysis of one-dimensional consolidation of viscoelastic saturated soils with fractional order derivative subject to surface loading and a constant-flux inner sink Li Linzhong Li Peichao Wang Lei Sun Dean (iii)
- Study on two-parameter bifurcation and global characteristics of 3-DOF gear system Wang Zonglu Zhu Lingyun Gou Xiangfeng (iii)
- A semi-analytic algorithm of the nearly singular integrals on higher order elements in BEM for 2D orthotropic potential problems Hu Bin Niu Zhongrong Hu Zongjun Ding Xinzhe Sun Xuegen (iv)
- Time-varying modal identification of concrete dams using the generalized yet another subspace tracker method and strong-motion records Cheng Lin Tong Fei Qin Quanle Yang Jie Zheng Dongjian (iv)
- Anti-plane problem of a screw dislocation in a one-dimensional hexagonal piezoelectric quasicrystal finite wedge Cui Xiaowei Li Lianhe (v)
- Ultrahigh speed imaging analysis of transient damage evolution process in concrete compression test Qin Yuan Zhang Yue Zhang Xianwei Chai Junrui (v)
- Collapse simulation of grid structure under landslide impact Wang Menghong Zhao Yaoxiang Zheng Xiaobin (v)
- Analysis of rock fragmentation characteristics under uniaxial impact loading Tang Zhiqiang Li Ao Shi Xiangchao Li Ze Peng Yao Bao Heng (vi)
- Preparation and properties of Ag_2MoO_4/Ag self-lubricating coatings by powder metallurgy Ding Chunhua Ding Yongchao Li Yayun (vi)
- Experimental research on durability and mechanical properties of basalt fiber reinforced concrete in sodium hydroxide environment Wang Zhenshan Li Haowei Wu Bo Ma Xiaoming Ma Hui Tian Jianbo (vi)
- Calculation of meniscus height for Newtonian and non-Newtonian fluids in micro/nano channels Hu Changjun Chen Xing Deng Yimin Li Dequn (vii)
- Study of improved dynamic stability analysis method in dam abutment Li Xiaona Zhao Jie Li Tongchun He Jinwen (vii)
- Dynamic response analysis of different sections gallery under gas explosion Liu Xiliang Li Ye Wang Xinyu Guo Jiaqi (viii)
- Numerical simulation of wind-induced loads on ladder-type cantilevered roof of stadium Wang Hui Hu Xianzhu Sang Lijuan (viii)
- Analysis of nonlinear high frequency vibration of quartz crystal plate under an electric field Wu Rongxing Yu Lanzhen Li Xiaodong Zheng Dong Wang Ji (ix)
- Experimental study on mechanical properties and stress-strain constitutive relations of desert sand concrete Li Zhiqiang Wang Guoqing Yang Sen Ju Guannan (ix)
- Primary resonance analysis of axially moving SMA laminated beam Hao Ying Hu Yuda Zhang Xiahui (ix)
- An experimental investigation of ogive-nosed projectiles penetration into plain concrete at high velocities Deng Yunfei Cui Yanan Mu Zhongcheng Feng Zhengxing Peng Jie (x)
- Cabins noise forecast and control of a type of oil tanker based on SEA Zhang Bo Li Lingfang Dong Jingjin Lü Binglin Zhang Wenbo (x)
- Test study of the influence of slenderness ratio on the burst pressure of TP2 copper tube Yang Fan Liu Cen Zhang Hongwei Chen Fan Fan Youxiong Liu Xiaoning (xi)
- Integrity analysis of wellbore structure in soft mudstone during drilling and cementing process Zhao Xuan Zhang Pengwei Wei Ran Zhou Bo Xue Shifeng (xi)
- Transfer path analysis of random vibration loads Li Peng Li Kaixiang Pan Kai (xi)
- Study on creep deformation law of the soft rock based on the stiffness coefficient reduced rates Zhao Na Wang Laigui (xii)
- Application of a microcrack tensile damage model in concrete materials Li Ping Li Yongchi Duan Shiwei (xii)
- Parametric analysis of the axial stiffness curve of curved tube cone-head K-joints of tubular Chen Ying Wu Junyang Shen Bo Ma Kejian Liu Panpan Xie Zongyan (xii)
- A two-dimensional numerical simulation study on the dynamic motion of the detonation products in confined explosion(II)——venting space Xu Weizheng Wu Weiguo (xiii)
- Research on dynamic active earth pressure of layered soil with different wall movement modes Han Shi Song Yuxiang Liu Yong Zhang Yanqing (xiii)
- A method for determining boundary conditions at stabilizers in bottomhole assembly analysis Guo Zonglu Gao Deli Liu Shujie (xiv)
- Study on nonlinear shear strength of unsaturated soil based on van Genuchten model Fang Wei Li Wan (xiv)
- Research on interfacial debonding behavior of carbon black particle reinforced rubber Huang Lihong Yang Xiaoxiang Gao Jianhong (xv)
- Failure mode and stress field for sample with two coplane pre-crack Zhang Zhiqiang Chen Fangfang Li Ning Ding Chenxi Zou Guanqi (xv)
- A method for separating amplitude, phase and zero baseline drift of random vibration signals Zhang Shaogang Li Furong Zhao Xiaolong (xvi)
- Regression forecasting and influence factor analysis of freezing adhesive strength on UHMWPE material of anti-freezing adhesion roller Wang Chunhua Chi Yifei An Da Qu Hui (xvi)