

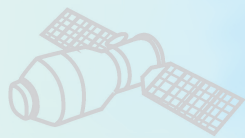
应用力学学报

二〇二一年

第三十八卷

第六期

西安交通大学
主办



ISSN 1000-4939

CN 61-1112/O3

应用力学学报

CHINESE JOURNAL OF APPLIED MECHANICS

2021年12月

第38卷 第6期 (卷终)
Vol.38 No.6

ISSN 1000-4939



9 771000 493215



西安交通大学主办



应 用 力 学 学 报

第38卷 第6期 总第172期

2021年12月15日出版

目 次

动力学与控制专题

- 原子重力仪的隔振技术研究现状 摆海龙 白金海 胡 栋 王 宇 (2201)
- 湍流脉动激励下板结构辐射噪声的多模态压电分流振动控制方法研究
..... 黎 丰 郑智伟 黄修长 华宏星 (2208)
- 基于 ADAMS 的非线性隔振系统吸引子迁移仿真研究
..... 柴 凯 俞 翔 丰少伟 杨云生 (2217)
- Levy 噪声驱动下基于三稳态随机共振理论降低 2FSK 信号误码率的研究
..... 令璐璐 王辅忠 信雅芯 张亚麟 郭天豪 (2224)
- 基于三维弹性理论的功能梯度梁在任意边界条件下的自由振动分析
..... 杨莎莎 沈 承 (2230)
- 白噪声激励下含惯性非线性梁的振动响应
..... 解娜娜 葛 根 (2236)
- 一种动力吸振梁单元及其单元功能激活控制方法
..... 华洪良 廖振强 (2243)
- 基于微型遗传算法的最大似然法识别风机转子系统的不对中载荷
..... 李建华 毛文贵 周 舟 (2250)
- 不同泊松比蜂窝夹层板的振动实验分析
..... 闫昭臣 张君华 刘彦琦 (2256)

固体力学

- 固体表面层的一种横向剪切模型
..... 颜 格 黄再兴 (2262)
- 屈曲耗能型钢板在减隔震支座研发中的应用
..... 孙建鹏 孙文武 张家驹 高 畅 (2268)
- 基于拓扑优化的 H 型钢梁腹板截面轻量化设计
..... 刘金磊 朱南海 (2275)
- 刚塑性悬臂梁在三角形脉冲荷载作用下的动力分析
..... 陈玉骥 郭浩宇 罗旗帜 (2284)
- 巨震作用下非线性黏滞阻尼耗能 RC 框架结构抗倒塌分析
..... 张 敏 陈钰雪 (2291)
- 螺旋肋薄壁钢管混凝土叠合柱滞回性能数值分析研究
..... 王振山 李亚坤 韦 俊 李 琦 申铭培 (2298)

新型三维三明治状框架结构复合电极材料的扩散诱导应力分析

..... 张 静 冯 露 仇 巍 张鹏飞 (2306)

复合材料增强管线钢管改进设计方法及相关规范分析

..... 王言聿 成志强 张 豫 陆剑锋 谢裕喜 (2314)

考虑真实焊缝的空间KT型圆管承载力分析

..... 龚 莎 谷金良 龚俊杰 蔡志华 (2321)

骨料-界面裂纹相互作用对混凝土开裂强度的影响

..... 吕从聪 卢晓春 熊勃勃 尹月明 (2329)

足尺度直立锁缝屋面风致变形数值仿真

..... 夏俞超 陈水福 (2338)

并联结构系统可靠性分析的非概率等效平面法

..... 乔心州 赵 悦 刘 鹏 方秀荣 (2346)

基于角度倾斜突变的边坡临界状态确定方法

..... 屈晓英 袁 维 谭捍华 黎海滨 王 伟 彭 澍 (2353)

不同工况下采煤机滚筒截割性能研究

..... 张 强 张晓宇 (2360)

分层密度梯度蜂窝材料面内动态压缩及吸能特性

..... 李 坚 孟卫华 张大海 艾 兴 (2369)

风力机叶片尾缘黏接线处理对尾缘胶接剪切疲劳性能的影响研究

..... 牛牧华 陈 程 (2376)

流体力学

高分子溶液对湍流边界层减阻机理的实验研究

..... 王超伟 杨绍琼 姜 楠 (2384)

长方形腔体中混合流体的对称对传波

..... 宁利中 宁碧波 郝建武 田伟利 (2392)

SIMPLE算法的一种改进格式

..... 秦 剑 潘华辰 田晓庆 RAHMAN M M (2398)

埋地燃气管道泄漏气体扩散机理分析

..... 罗 涛 马海峰 胡 坤 韩佳倩 邓 荣 (2405)

基于TRESCA强度理论的弯管应力分析及变壁厚模型建立

..... 李 彬 何 贝 李瑞光 赵 哲 王 梦 郭晓宇 (2411)

考虑流阻模拟的通风冷却系统风洞试验

..... 杨成凤 段卓毅 张 宏 (2419)

生物力学

功能性踝关节不稳者本体感觉力学差异及平衡训练干预效果

..... 付光亮 孟庆华 鲍春雨 (2426)

两种拉伸对落地缓冲期下肢动力学及吸能模式的影响

..... 井兰香 杨广辉 (2432)

2021年总目次 I

责任编辑: 张 璐

英文编辑: 范晓晖

期刊基本参数: CN 61-1112/O3*1984*S*A4*252*zh*p*¥ 75*1000*33*2021-12

Chinese Journal of Applied Mechanics

Vol.38 No.6

Dec.2021

CONTENTS

Special Topic in Dynamics and Control

- Research status of vibration isolation technologies for atom gravimeter
..... *BAI Hailong BAI Jinhai HU Dong WANG Yu* (2201)
- Multi-mode resonances control of a panel's vibration and sound radiation under turbulent boundary layer excitation by piezoelectric shunt networks *LI Feng ZHENG Zhiwei HUANG Xiuchang HUA Hongxing* (2208)
- Research of the attractor migration simulation for nonlinear vibration isolation system based on ADAMS software
..... *CHAI Kai YU Xiang FENG Shaowei YANG Yunsheng* (2217)
- Reduction of bit error rate of 2FSK signal driven by Levy noise based on tristable stochastic resonance theory
..... *LING Lulu WANG Fuzhong XIN Yaxin ZHANG Yalin GUO Tianhao* (2224)
- Free vibration of functionally graded beams with arbitrary boundary conditions under thermal environment based on elasticity theory *YANG Shasha SHEN Cheng* (2230)
- Vibration response of a nonlinear beam with inertia excited by white noise
..... *XIE Nana GE Gen* (2236)
- A DVA-beam element and its function activation control method
..... *HUA Hongliang LIAO Zhenqiang* (2243)
- Identification of misaligned load of wind turbine rotor system by maximum likelihood method based on micro genetic algorithm *LI Jianhua MAO Wengui ZHOU Zhou* (2250)
- Experimental study on vibrations of honeycomb sandwich plates with different Poisson's ratios
..... *YAN Zhaochen ZHANG Junhua LIU Yanqi* (2256)

Solid Mechanics

- A transverse shear model of solid surface layer
..... *YAN Ge HUANG Zaixing* (2262)
- Application of buckling energy dissipating steel plate in the research and development of seismic isolation bearing
..... *SUN Jianpeng SUN Wenwu ZHANG Jiaju GAO Chang* (2268)
- The lightweight design of H-beam web section based on topology optimization
..... *LIU Jinlei ZHU Nanhai* (2275)
- The dynamic analysis of the rigid-plastic cantilever beam under the triangle impulse load
..... *CHEN Yuji GUO Haoyu LUO Qizhi* (2284)
- Collapse-resistant capacity of RC frame structure of nonlinear viscous damping dissipates energy subjected to mega earthquakes *ZHANG Min CHEN Yuxue* (2291)
- Hysteretic behavior and numerical analysis of thin-walled concrete-encapsulated steel tubular composite column with spiral ribs *WANG Zhenshan LI Yakun WEI Jun LI Qi SHEN Mingpei* (2298)
- Diffusion-induced stress analysis of a new composite electrode material with 3D sandwich-like frame microstructure
..... *ZHANG Jing FENG Lu QIU Wei ZHANG Pengfei* (2306)

- An improved design method for composite reinforced line pipes and analysis of design code
 *WANG Yanyu CHENG Zhiqiang ZHANG Yu LU Jianfeng XIE Yuxi* (2314)
- Bearing capacity analysis of space KT circular pipe considering real weld
 *GONG Sha GU Jinliang GONG Junjie CAI Zhihua* (2321)
- Effect of aggregate-interface crack interaction on cracking strength of concrete
 *LÜ Congcong LU Xiaochun XIONG Bobo YIN Yueming* (2329)
- Numerical simulation of wind-induced deformation of the full scale standing seam metal roof systems
 *XIA Yuchao CHEN Shuifu* (2338)
- Non-probabilistic equivalent planes method for reliability analysis of parallel structural systems
 *QIAO Xinzhou ZHAO Yue LIU Peng FANG Xiurong* (2346)
- A method for determining the critical state of slope based on angular tilt mutation
 *QU Xiaoying YUAN Wei TAN Hanhua LI Haibin WANG Wei PENG Shu* (2353)
- Cutting performance of shearer drum under different working conditions
 *ZHANG Qiang ZHANG Xiaoyu* (2360)
- Dynamic crushing behavior and energy absorption of hexagonal honeycomb material with layered density gradient
 *LI Jian MENG Weihua ZHANG Dahai AI Xing* (2369)
- Influence of bonding line treatments on the shear fatigue damage of the blade trailing-edge adhesive joint
 *NIU Muhua CHEN Cheng* (2376)

Fluid Mechanics

- Experimental investigation of drag reduction in turbulent boundary layer with polymer additives solution
 *WANG Chaowei YANG Shaoqiong JIANG Nan* (2384)
- Symmetrical counterpropagating waves of binary fluid mixture in a long rectangular cavity
 *NING Lizhong NING Bibo HAO Jianwu TIAN Weili* (2392)
- An improved format for SIMPLE algorithm
 *QIN Jian PAN Huachen TIAN Xiaoqing RAHMAN MM* (2398)
- Analysis of gas diffusion mechanism of gas leakage in buried gas pipeline
 *LUO Tao MA Haifeng HU Kun HAN Jiaqian DENG Rong* (2405)
- The stress analysis and wall thickness model establishment of elbow pipe based on TRESCA strength criterion
 *LI Bin HE Bei LI Ruiguang ZHAO Zhe WANG Meng GUO Xiaoyu* (2411)
- Inlet of air cooling system wind tunnel test with flow resistance simulation
 *YANG Chengfeng DUAN Zhuoyi ZHANG Hong* (2419)

Biomechanics

- Differences in proprioceptive mechanics and the intervention effect of balance training in functional ankle arthropods
 *FU Guangliang MENG Qinghua BAO Chunyu* (2426)
- Effects of two kinds of stretch training on lower limb kinetics and energy absorption pattern during cushioning period
 *JING Lanxiang YANG Guanghui* (2432)