

# 计算力学学报

第 39 卷 第 6 期 2022 年 12 月

## 目 次

### 研究论文

- 弹性地基加肋功能梯度板自由振动分析的无网格法 ..... 陈思亚,陈卫,黄钟民,等 (691-698)
- 基于参变量变分原理的直升机系留载荷高性能计算方法 ..... 张燕辉,高强 (699-705)
- 基于应变梯度理论的微尺度蜂窝等效模量计算方法 ..... 贺丹,刘圣乔,冯佳月 (706-711)
- 新型外包加强型混合节点非线性数值模拟及参数分析  
..... 潘秀珍,高欢,阿卜来则孜·奥斯曼江,等 (712-721)
- 四边简支功能梯度圆锥壳的非线性振动分析 ..... 张宇航,刘文光,刘超,等 (722-728)
- 设置连接阻尼器的相邻结构随机地震动响应的简明封闭解 ..... 李创第,杨雪峰,李宇翔,等 (729-736)
- 基于修正 Park-Ang 模型的圆钢管构件地震损伤评估 ..... 刘翔,朱南海,陈禄军 (737-745)
- 侧向受拉脆性岩石压缩本构及蠕变失效研究 ..... 李晓照,车行,邵珠山,等 (746-753)
- 压电磁材料中正  $n$  边形孔边裂纹分析 ..... 徐燕,杨娟 (754-760)
- 不同壁面条件下液滴撞击铺展特性的模拟研究 ..... 周鑫,马小晶,胡丽娜,等 (761-767)
- 台阶式溢洪道的  $\delta$ -LES-SPH 数值模拟 ..... 高仁祖,吴海涛,顾声龙,等 (768-777)
- HLLE++ 格式在高马赫数空腔流动模拟中的应用 ..... 张培红,罗磊,贾洪印,等 (778-785)
- 气泡夹带对壁面油膜流动特性的影响 ..... 童宝宏,陈武,张国涛,等 (786-794)
- 混凝土搅拌车搅拌筒磨损数值分析 ..... 姜胜强,胡铎翔,曹国栋,等 (795-802)
- 一种简单的精确捕捉接触间断的黎曼求解器 ..... 胡立军,杜玉龙 (803-811)
- 温度效应对覆冰导线舞动特征的影响研究 ..... 沈祺航,刘小会,闵光云,等 (812-817)
- 变宽截面箱梁剪力滞效应研究 ..... 卢敏锋,丁南宏 (818-823)

### 研究简报

- 基于 ALE,CEL 和 SPH 方法的球形破片高速冲击充液结构对比研究 ... 张宇,王彬文,刘小川 (824-831)
- 矩形基础地基临塑荷载公式 ..... 许年春,郑瑞,吴同情,等 (832-837)
- 基于离散元的杆件断裂全过程数值模拟 ..... 齐念,郑开启 (838-844)
- 集中载荷作用下不同边界条件的弯曲厚矩形板的受迫振动 ..... 陈英杰,岳星宇(英) (845-851)
- 任意边界条件下双模量矩形薄板的弯曲 ..... 曹彩芹,宋永超 (852-856)

封面题字:钱令希 责任编辑:冯颖 刘燕

期刊基本参数:CN21-1373/O3 \* 1984 \* b \* A4 \* 166 \* zh+en \* P \* ¥50.00 \* 1000 \* 22 \* 2022-12

# Chinese Journal of Computational Mechanics

Vol. 39 No. 6 December 2022

## CONTENTS

### Research Papers

- Meshless method for free vibration analysis of stiffened functionally graded plates  
resting on elastic foundation ..... CHEN Si-ya, CHEN Wei, HUANG Zhong-min, et al (691-698)
- High-performance method for mooring load computation of helicopter based on  
parametric variational principle ..... ZHANG Yan-hui, GAO Qiang (699-705)
- Methodology for calculating the in-plane equivalent modulus of micro-honeycomb  
core using the strain gradient theory ..... HE Dan, LIU Sheng-qiao, FENG Jia-yue (706-711)
- Nonlinear numerical simulation and parameter analysis of a new type of outsourcing  
enhanced hybrid joint ..... PAN Xiu-zhen, GAO Huan, Abolaizezi • Aosimanjiang, et al (712-721)
- Analysis of nonlinear vibration of a functionally graded conical shell with simply  
support at four edges ..... ZHANG Yu-hang, LIU Wen-guang, LIU Chao, et al (722-728)
- Concise closed-form solution for the random ground vibration response of two adjacent  
structures with connected dampers ..... LI Chuang-di, YANG Xue-feng, LI Yu-xiang, et al (729-736)
- Research on seismic damage assessment of circular steel tube members based on  
modified Park-Ang model ..... LIU Xiang, ZHU Nan-hai, CHEN Lu-jun (737-745)
- Research into the compressive constitutive and creep failure properties of brittle  
rocks under the lateral tension ..... LI Xiao-zhao, CHE Xing, SHAO Zhu-shan, et al (746-753)
- Analysis of regular  $n$ -polygon hole with radial edge cracks in  
magneto-electro-elastic composites ..... XU Yan, YANG Juan (754-760)
- Simulation study on spreading characteristics of droplet impinging under different  
wall conditions ..... ZHOU Xin, MA Xiao-jing, HU Li-na, et al (761-767)
- Based on  $\delta$ -LES-SPH for simulating turbulence over stepped spillway  
..... GAO Ren-zu, WU Hai-tao, GU Sheng-long, et al (768-777)
- Application of HLLC++ scheme in the simulation of high Mach number  
cavity flow ..... ZHANG Pei-hong, LUO Lei, JIA Hong-yin, et al (778-785)
- The effect of bubble entrainment on the flow characteristics of the oil film on  
the wall ..... TONG Bao-hong, CHEN Wu, ZHANG Guo-tao, et al (786-794)
- Numerical analysis of abrasion of concrete mixer drum  
..... JIANG Sheng-qiang, HU Duo-xiang, CAO Guo-dong, et al (795-802)
- A simple Riemann solver accurate for contact discontinuity ..... HU Li-jun, DU Yu-long (803-811)
- Influences of temperature on the galloping characteristics of iced conductor  
..... SHEN Qi-hang, LIU Xiao-hui, MIN Guang-yun, et al (812-817)
- Research on shear lag effect of box girder with variable width section  
..... LU Min-feng, DING Nan-hong (818-823)

### Research Notes

- Comparative study of fluid-filled structure impacted by high-speed spherical fragments  
based on ALE, CEL and SPH ..... ZHANG Yu, WANG Bin-wen, LIU Xiao-chuan (824-831)
- The formula of subgrade's approaching plasticity load for rectangular footings  
..... XU Nian-chun, ZHENG Rui, WU Tong-qing, et al (832-837)
- Numerical simulation on entire-process of member fracture by discrete  
element method ..... QI Nian, ZHENG Kai-qi (838-844)
- Forced vibration of bending thick rectangular plates with different boundary  
conditions under concentrated load ..... CHEN Ying-jie, YUE Xing-yu (845-851)
- Bending of double modulus rectangular thin plates under arbitrary boundary  
conditions ..... CAO Cai-qin, SONG Yong-chao (852-856)