



力学学报 (双月刊)

Chinese Journal of Theoretical and
Applied Mechanics

1957年 创刊

2017年

第49卷 第6期

目 次

创刊 60 周年专栏

- 飞机尾涡演变及快速预测的大涡模拟研究 林孟达 崔桂香 张兆顺 许春晓 黄伟希 (1185)
- 沟槽方向对湍流边界层流动结构影响的实验研究 崔光耀 潘 翀 高 琪 李鹿辉 王晋军 (1201)
- 金属/环氧/金属粘结体系的强韧和失效机制实验研究 李景传 梁立红 刘小明 马寒松 宋晶如 魏悦广 (1213)
- 固体结构大规模矩阵正定性判定的快速算法 徐 辉 刘 彬 (1223)
- 基于分层分压结构的新型潜水器耐压壳结构设计 张 吟 刘小明 雷现奇 孙成奇 方 新 魏宇杰 (1231)

流体力学

- 低密度风洞瑞利散射测速实验中纳米粒子跟随性数值分析 李中华 李志辉 陈爱国 吴俊林 (1243)
- 矩形疏水沟槽表面水滴振荡特性 董琪琪 胡海豹 陈立斌 余思潇 (1252)
- 过山脊内孤立波演变及其对细长潜体的作用力特性 谷梦梦 魏 岗 邓 冰 杜 辉 武军林 (1260)
- 锥射流模式下乙醇静电喷雾液滴速度特性分析 甘云华 江经纬 李海鸽 (1272)
- 液桥内热质耦合对流不稳定性及旋转磁场法控制 邹 勇 朱桂平 李 来 黄护林 (1280)
- 一种基于双界面函数的界面捕捉方法 李 康 刘 娜 何志伟 骆龙山 田保林 (1290)

固体力学

- 轻敲模式下原子力显微镜的能量耗散 魏 征 孙 岩 王冉冉 王克俭 许向红 (1301)
- 基于构型力断裂准则的裂纹与夹杂干涉问题 古 斌 郭宇立 李 群 (1312)
- 三剪应力统一强度理论研究 高江平 杨 华 蒋宇飞 吴鹏阁 孙世界 (1322)
- 比例边界有限元法求解裂纹面接触问题 章 鹏 杜成斌 江守燕 (1335)
- 黏弹性层状周期板动力计算的近似理论与解答 徐司慧 王炳龙 周顺华 杨新文 李尧臣 (1348)
- 梯度波阻板的地基振动控制研究 马 强 周凤玺 刘 杰 (1360)

动力学与控制

- 浮放物体平面多刚体动力学建模与算法研究 张润森 王 琪 (1370)
- 离散达芬映射中由边界激变所诱发的复杂的张弛振荡 陈振阳 韩修静 毕勤胜 (1380)
- 轴向移动悬臂梁高效动力学建模及频率响应分析 华洪良 廖振强 张相炎 (1390)

生物、工程及交叉力学

- 猪肝动态力学性能及本构模型研究 王宝珍 胡时胜 (1399)
- 可降解聚合物血管支架结构优化设计 赵丹阳 刘 韬 李红霞 王敏杰 (1409)
- 波动问题中流体介质的动力人工边界 刘晶波 宝 鑫 谭 辉 王建平 郭 东 (1418)

科学基金

- 第十届全国流体力学青年研讨会简介 黄章峰 张攀峰 詹世革 (1428)

《力学学报》2017 年分类目录 (i)

Chinese Journal of Theoretical and Applied Mechanics

(Bimonthly)

Vol. 49, No. 6, 2017

CONTENTS

The 60th Anniversary Column

- Large eddy simulation on the evolution and the fast-time prediction of aircraft wake vortices Lin Mengda Cui Guixiang Zhang Zhaoshun Xu Chunxiao Huang Weixi (1185)
- Flow structure in the turbulent boundary layer over directional riblets surfaces Cui Guangyao Pan Chong Gao Qi Akira Rinoshika Wang Jinjun (1201)
- Experimental investigations of strength, toughness and failure mechanism of the metal/epoxy/metal adhesive system Li Jingchuan Liang Lihong Liu Xiaoming Ma Hansong Song Jingru Wei Yueguang (1213)
- Fast algorithms for determining positive definiteness of large scale matrices in solid structure analysis Xu Hui Liu Bin (1223)
- New structural design of spherical pressure hull for deep-sea submersibles: A multilayer and pressure redistribution approach Zhang Yin Liu Xiaoming Lei Xianqi Sun Chengqi Fang Xin Wei Yujie (1231)

Fluid Mechanics

- Numerical analyzition of nano-particle following features for Rayleigh scattering velocity measurement test in low density wind tunnel Li Zhonghua Li Zhihui Chen Aiguo Wu Junlin (1243)
- Characteristic of droplet oscillation on the surface of rectangular hydrophobic grooves Dong Qiqi Hu Haibao Chen Libin Yu Sixiao (1252)
- Experimental investigation on the evolution of internal solitary wave over a ridge and its acting forces on a submerged slender body Gu Mengmeng Wei Gang Deng Bing Du Hui Wu Junlin (1260)
- A study on droplet velocity of ethanol during electro spraying process at cone-jet mode Gan Yunhua Jiang Zhengwei Li Haige (1272)
- Instability of coupled thermo-solute capillary convection in liquid bridge and control by rotating magnetic field Zou Yong Zhu Guiping Li Lai Huang Hulin (1280)
- A new interface capturing method based on double interface functions Li Kang Liu Na He Zhiwei Luo Longshan Tian Baolin (1290)

Solid Mechanics

- Energy dissipation in tapping mode atomic force microscopy Wei Zheng Sun Yan Wang Zairan Wang Kejian Xu Xianghong (1301)
- Crack interacting with an individual inclusion by the fracture criterion of configurational force Gu Bin Guo Yuli Li Qun (1312)
- Study of three-shear stress unified strength theory Gao Jiangping Yang Hua Jiang Yufei Wu Pengge Sun Shijie (1322)
- Crack face contact problem analysis using the scaled boundary finite element method Zhang Peng Du Chengbin Jiang Shouyan (1335)
- Approximate theory and analytical solution for dynamic calculation of viscoelastic layered periodic plate Xu Sihui Wang Binglong Zhou Shunhua Yang Xinwen Li Yaochen (1348)
- Analysis of ground vibration control by graded wave impeding block Ma Qiang Zhou Fengxi Liu Jie (1360)

Dynamics, Vibration and Control

- Research on modeling and numerical method of free standing body on planar rigid multibody dynamics Zhang Runsen Wang Qi (1370)
- Complex relaxation oscillation triggered by boundary crisis in the discrete Duffing map Chen Zhenyang Han Xiuqing Bi Qinsheng (1380)
- An efficient dynamic modeling method of an axially moving cantilever beam and frequency response analysis Hua Hongliang Liao Zhenqiang Zhang Xiangyan (1390)

Biomechanics, Engineering and Interdisciplinary Mechanics

- Research on dynamic mechanical response and constitutive model of porcine liver Wang Baozhen Hu Shisheng (1399)
- Optimization design of degradable polymer vascular stent structure Zhao Danyang Liu Tao Li Hongxia Wang Minjie (1409)
- Dynamical artificial boundary for fluid medium in wave motion problems Liu Jingbo Bao Xin Tan Hui Wang Jianping Guo Dong (1418)

Science Foundation

- Review of the tenth national symposium on fluid mechanics for young scholars Huang Zhangfeng Zhang Panfeng Zhan Shige (1428)

- Chinese Journal of Theoretical and Applied Mechanics 2017 analytic subject index (v)