

## 目 次

### 工程数值仿真与 CAE 算法

- LNG 用截止阀超低温实验填料温度影响因素分析 ..... 范成裕, 刘洋, 滕媛媛, 张高源(1)  
基于 FLUENT 的船用铝合金板激光焊接数值仿真分析 ..... 吕成(7)  
燃气轮机转子分布式拉杆螺栓螺纹受载和松动特性 ..... 余沛炯, 邓皓, 魏佳明, 詹长庚, 祝华云(13)  
轮毂电机驱动车轮不平衡电磁力分析 ..... 祁诗茵, 单颖春, 刘献栋(18)  
汽车尾喉声学性能分析及改进 ..... 程春, 张轶涵(24)  
某车型千斤顶固定座处车身钣金撕裂破坏问题与解决  
..... 王旭, 谢浩森, 周文超, 韩超, 王涛, 孙佳兴, 石利敏(28)  
基于拓扑优化的动集车小排障器安装座疲劳设计 ..... 于德壮, 柳占宇, 张威, 张昭(34)  
仿真驱动的机动生物安全舱通风空调系统设计 ..... 章鑫昌, 靳春宁, 马俊, 宋明亮, 李宝军(39)  
基于数字孪生的加速器机组三维可视化与故障诊断方法 ..... 杨胜, 梁立振, 刘少清, 张小丹(44)  
气肋式充气帐篷结构承载能力仿真分析 ..... 田宇, 常亮, 万春华, 聂小华(52)  
碟簧式自复位防屈曲支撑滞回性能数值模拟 ..... 张城, 王敦强(57)  
管漏产生的渗流水受挡水效应后对产生渗蚀的影响 ..... 钟世英, 刘伟, 丛波日(62)  
弹簧-梁模型计算浆锚连接节点受拉研究 ..... 李蕊希, 夏志强, 周文君(70)

### 应用技术与技巧

- CAE 软件操作小百科(67) ..... 孟瑞(76)

### 行业动态与访谈

- 第 20 届中国 CAE 工程分析技术年会暨第 6 届中国数字仿真论坛在北京顺利召开 ..... (78)  
Ansys 2024 全球仿真大会成功举办 ..... (80)

信息：上海海事大学杂志社联合订户（封三）

广告：Ansys 公司（封一、封四） 公益广告（封二）

[期刊基本参数] CN 31-1679/TP \* 1992 \* q \* A4 \* 84 \* zh \* P \* ¥25.00 \* 600 \* 14 \* 2024-09

## Contents

### Numerical Simulation of Engineering and CAE Algorithm

Analysis of factors influencing packing temperature in cryogenic test of shut-off valves for LNG	<i>FAN Chengyu, LIU Yang, TENG Yuanyuan, ZHANG Gaoyuan</i> (1)
Numerical simulation analysis of laser welding of marine aluminum alloy plate based on FLUENT	<i>LYU Cheng</i> (7)
Load and loosening characteristics of distributed tension rod bolt thread in gas turbine rotor	<i>YU Peijiong, DENG Zhe, WEI Jiaming, ZHAN Changgeng, ZHU Huayun</i> (13)
Analysis of electromagnetic force causing wheel imbalance in hub motor drive	<i>QI Shiyin, SHAN Yingchun, LIU Xiandong</i> (18)
Analysis and improvement on acoustic performance of automotive tailpipe	<i>CHENG Chun, ZHANG Yihan</i> (24)
Tearing failure of body sheet metal at fixed seat of certain vehicle jack and its solution	<i>WANG Xu, XIE Haosen, ZHOU Wenchao, HAN Chao, WANG Tao, SUN Jiaxing, SHI Limin</i> (28)
Fatigue design of mounting seat in cowcatcher of power concentrated EMU based on topology optimization	<i>YU Dezhuang, LIU Zhanyu, ZHANG Wei, ZHANG Zhao</i> (34)
Simulation driven design of ventilation and air conditioning system for mobile bio-safety shelter	<i>ZHANG Xinchang, JIN Chunling, MA Jun, SONG Mingliang, LI Baojun</i> (39)
Fault diagnosis method and 3D visualization of accelerator device based on digital twin	<i>YANG Sheng, LIANG Lizhen, LIU Shaoqing, ZHANG Xiaodan</i> (44)
Simulation analysis of structural bearing capacity of gas-ribbed inflatable tent	<i>TIAN Yu, CHANG Liang, WAN Chunhua, NIE Xiaohua</i> (52)
Numerical simulation of hysteretic performance of disc spring self-centering system buckling-restrained brace	<i>ZHANG Cheng, WANG Dunqiang</i> (57)
Influence of water retaining effect on the erosion caused by pipe leakage	<i>ZHONG Shiyi, LIU Wei, CONG Bori</i> (62)
Research on the tension calculationproblem of slurry anchors connect	<i>LI Ruixi, XIA Zhiqiang, ZHOU Wenjun</i> (70)

### Application Technique and Skills

CAE software operation tips (67)	<i>MENG Rui</i> (76)
----------------------------------	----------------------