

2013

第 5 期

Vol. 34 No. 5

第34卷 第5期

Journal of
Graphics

图学学报



中国图学学会会刊
中国中文核心期刊
全国科技论文统计用刊

目次

庆祝湖北省工程图学学会成立50周年专栏

三维模型数字水印技术研究进展·····	崔汉国, 刘健鑫, 代星, 周智兴 (1)
基于物联网的桥梁健康监控系统设计与实现·····	祖巧红, 张海峰, 徐兴玉, 尹莹 (7)
Delaunay三角网生长算法改进与实现·····	周婷, 彭正洪, 密新武 (12)
储罐底板漏磁检测缺陷整体分布图自动生成方法·····	宋小春, 文海燕, 许正望 (16)
平面连杆机构曲柄调速结构设计·····	杜力, 任亨斌, 黄勇刚, 康华领, 付婷 (20)
武汉城市住宅小区风环境计算机模拟分析·····	钱义, 尚涛, 詹平 (25)
鄂州体育中心规划设计的计算机三维仿真·····	陈永红, 詹平, 密新武 (30)
循序渐进掌握CAD/CAE/CAM技术·····	安萍, 吴树森, 叶升平 (35)
海军院校工程制图课程中舰船工程图的体现与融合·····	欧阳清, 施冠羽, 莫登沅 (40)

图形学与可视化

流程工厂设计软件的关键技术研究及展望·····	张士庆 (46)
基于最大相似类别和位置熵的三维模型融合检索方法·····	陈俊英, 孟月波, 王美慧, 刘四妹 (51)
一种任意次非均匀B样条的细分算法·····	韩力文, 杨玉婷, 邱志宇 (56)

几何设计与计算

射影线束形成的抛物线与椭圆抛物面的相似断层表示·····	刘阜平, 丁勇 (62)
基于加权渐近插值的Loop细分曲面等距逼近·····	陈甜甜, 赵昱 (66)
二/三阶三角Bézier曲线·····	严兰兰, 韩旭里, 邹国根, 黄国辉 (71)

数字化设计

流程工厂设计软件的关键技术研究及展望·····	李士才, 唐卫清 (76)
基于功率键合图装载机转向系统建模与仿真·····	卞向娟, 龚友平, 李志华 (82)

工业设计

产学研结合的产品设计课程实践教学研究·····	刘永瞻, 刘静华 (88)
面向用户认知的汽车产品族前脸造型设计方法·····	张悦, 卢兆麟 (93)
双壳铝合金车体一次弯曲固有频率的计算方法·····	赵水, 贺鑫, 原欣 (99)

视觉与图像

基于冠脉造影和血管内超声图像融合的虚拟血管镜系统·····	孙正, 韩少勤 (103)
改进BP网络在超光谱图像压缩中的应用·····	闫红梅, 吴冬梅 (110)
变量喷雾系统中果树冠幅检测方法研究·····	沈明明, 张富贵, 吴雪梅, 刘国志, 陈宇熠 (115)

交互技术与虚拟现实

机械产品三维互动选型与定制系统·····	叶建华, 高诚辉, 江吉彬 (121)
基于光学运动捕捉的虚拟人体标定技术·····	侯永隆, 宁涛, 王可 (126)

应用与交流

图解工程静力学研究·····	林大钧 (132)
基于GB/T 24734的三维尺寸快速标注技术·····	许璟琳, 郑国磊, 王勃 (138)
机械装备金属结构有限元建模策略研究与应用·····	朱会文, 黄启良, 王宗彦, 屈小章 (143)
视图中呈类似性同一平面的可构性研究·····	董萍 (148)

CONTENTS

Special Column for the 50th Anniversary of Hubei Engineering Graphics Society

- Progress of Digital Watermarking Technology for 3D Model ... Cui Hanguo, Liu Jianxin, Dai Xing, Zhou Zhixing (1)
- The Design and Implement of Bridge Health Monitoring System Based on Internet of Things
... Zu Qiaohong, Zhang Haifeng, Xu Xingyu, Yin Ying (7)
- An Improved Delaunay Triangle Network Growth Algorithm and its Implementation
... Zhao Ting, Peng Zhenghong, Mi Xinwu (12)
- An Auto-generating Method of Defect Distribution Mapping for Tank Floor Inspection Based on Magnetic Flux Leakage
... Song Xiaochun, Wen Haiyan, Xu Zhengwang (16)
- Crank Speed Structure Design of Planar Linkage
... Du Li, Ren Hengbin, Huang Yonggang, Kang hualing, Fu Ting (20)
- Computer Simulation and Analysis of Wind Environment in Wuhan Urban Residential District
... Qian Yi, Shang Tao, Zhan Ping (25)
- Three-dimensional Computer Simulation of Sports Center Planning Design in Ezhou
... Chen Yonghong, Zhan Ping, Mi Xinwu (30)
- Learning of CAD/CAE/CAM Technology Step by Step ... An Ping, Wu Shusen, Ye Shenping (35)
- Embedding of Ship's Engineering Drawing in Graphics Course in Navy Academy
... Ouyang Qing, Shi Guanyu, Mo Dengyuan (40)

Graphics and Visualization

- Visualized Geometrical Demonstration of the Four Colors Problem and the Four Color Theorem of Simple Map
... Zhang Shiqing, Zhang Hao (46)
- 3D Model Retrieval Based on Maximum Similar Category and Location Entropy
... Chen Junying, Meng Yuebo, Wang Xianhui, Liu Simei (51)
- A Subdivision Algorithm for Non-uniform B-Splines of Arbitrary Degree ... Han Liwen, Yang Yuting, Qiu Zhiyu (56)

Geometric Design and Computing

- The Similar Cutting Layers of Parabola and Elliptic Paraboloid Formed by two Projective Line Pencil
... Liu Fuping, Ding Yong (62)
- Offset Approximation of Loop Subdivision Surface Based on Weighted Progressive Interpolation
... Chen Tiantian, Zhao Gang (66)
- Triangular Bézier Curve of Order Two/Three ... Yan Lanlan, Han Xuli, Wu Guogen, Huang Guohui (71)

Digitized Design

- Research of Key Technology in Process Plant Design Software ... Li Shicai, Tang Weiqing (76)
- Model Construction and Simulation of Loader Steering System Based on Power Bond Graph
... Bian Xiangjuan, Gong Youping, Li Zhihua (82)

Industrial Design

- Research on the Practice Instructing for the Product Design Curriculum Under the University-Industry Collaboration Mode
... Liu Yongzhan, Liu Jinghua (88)
- A Design Method of Automobile Front Face for Users' Cognizance ... Zhang Yue, Lu Zhaolin (93)
- The Calculation Methods for First Warp Model Frequency of Double-shell Aluminum Alloy Carbony
... Zhao Shui, He Xin, Yuan Xin (99)

Vision and Image

- Virtual Angioscope System Based on Fusion of Coronary Angiography and Intravascular Ultrasound Images
... Sun Zheng, Han Shaoqin (103)
- Application of Improved BP Neural Network in Hyper-spectral Image Compression
... Yan Hongmei, Wu Dongmei (110)
- A Method for Detecting Fruiter Crown Diameter in Variable-rate Spray System
... Shen Mingming, Zhang Fugui, Wu Xuemei, Liu Guozhi, Chen Yuyi (115)

Interactive Technology and Virtual Reality

- Product Selection and Customization System ... Ye Jianhua, Gao Chenghui, Jiang Jibin (121)
- A Technique for Virtual Human Calibration Based on Optical Motion Capture ... Hou Yonglong, Ning Tao, Wang Ke (126)

Application and Communication

- Research on Graphical Engineering Statics ... Lin Dajun (132)
- Rapid Three-Dimensional Annotation Based on GB/T 24734 ... Xu Jinglin, Zheng Guolei, Wang Bo (138)
- Research and Application of Finite Element Modeling Strategy for Mechanical Equipment Metal Structure
... Zhu Huiwen, Huang Qiliang, Wang Zongyan, Qu Xiaozhang (143)
- Structuralization of Similar Planes on the Views ... Dong Ping (148)