

2018

第2期

Vol. 39 No. 2

第39卷 第2期

Journal of
Graphics

图学学报



中国图学学会会刊

《中文核心期刊要目总览》（第七版）科技类核心期刊

中国科技核心期刊（中国科技论文统计源期刊）

中国科学引文数据库（CSCD）核心期刊

中国学术期刊综合评价数据库来源期刊

日本科学技术振兴机构中国文献数据库（JSTChina）收录期刊

目 次

图像与视频处理

- 基于纹理的三维书籍模型单侧页面提取方法 童立靖, 王凤鹤, 李 斌 (179)
- 基于各向异性全变分的迭代滤波算法 芦碧波, 王乐蓉, 郑艳梅, 王永茂, 李晓莹, 秦钰翔 (186)
- 一种新的图像去模糊清晰化方法 王文豪, 严云洋, 姜明新, 于永涛, 赵文东 (193)
- 基于 NSST-IHS 变换稀疏表示的 SAR 与可见光图像融合 盛佳佳, 杨学志, 董张玉, 焦 玮 (201)
- 一种改进的 SAR 与可见光图像的快速配准算法 张皖南, 杨学志, 董张玉 (209)
- 国际音标图像字符细化方法 孙孝坤, 黄继风 (214)

计算机视觉

- 基于空间组合式单元模型的表面求交算法 汪基伟, 付 宇, 王亚奖 (221)
- 基于体素模型的 3D 打印支撑算法 徐文鹏, 苗龙涛, 侯守明, 强晓焕, 曾艳阳 (228)
- 基于低分辨率彩色指导图像的深度图像超分辨率重建 武玉龙, 赵 洋, 曹明伟, 刘晓平 (235)
- 一种数据增强和多模型集成的细粒度分类算法 蒋 杰, 熊昌镇 (244)
- 广义重心坐标的递推关系 钱毅加, 唐 烁, 王旭辉 (251)

计算机图形学

- 面轨道特征的矩形排样与加工路径优化方法研究 周佳立, 郭 奇, 吴 超, 武 敏 (256)
- 改进的流体模拟固体边界处理算法 朱晓临, 殷竞存, 汪欢欢 (263)
- 基于视觉物理模型的去雾算法 马时平, 李权合, 马红强, 毕笃彦 (269)
- 结合 Delaunay 三角面分离法与搜索球策略的三维曲面重建算法 袁清浏, 吴学群 (278)
- 基于正则渐进迭代逼近的自适应 B 样条曲线拟合 刘明增, 郭庆杰, 王思奇 (287)
- 一类代数-三角函数表示的空间 PH 曲线及其应用 吴伟栋, 杨勋年 (295)

虚拟现实/增强现实

- 基于 Unity3D 的减速器虚拟拆装实验 冯桂珍, 池建斌, 邢海军, 张增强, 贾 双 (304)
- 基于移动平台的三维虚拟试发型系统实现及应用 邹 晓, 陈正鸣, 朱红强, 童 晶 (309)
- VR 系统信息可视化模型 孙 辉, 吕 健, 寸文哲 (317)
- 脑电技术在文化创意产品情感化设计中的应用 邓 丽, 陈 波, 庞茜月, 文 荣, 谢冰玉 (327)

智能设计与数字化设计

- 中国古典建筑构件 BIM 参数化建模方法研究 高 岱, 王宏扬, 杜嘉赫, 蔡子昂, 洛桑次仁 (333)
- 无人机 LiDAR 场地勘测及 BIM 规划设计研究与实践
..... 田先斌, 张永利, 吴建文, 蔡 振, 于 悦 (339)
- 基于达索平台 CAA 架构的混凝土连续梁桥主体结构 BIM 建模工具开发 齐成龙 (346)
- 基于网格模型的三维人体自动化测量方法 于 英, 陈继华, 卢学良 (352)
- 区域填充算法在多重嵌套多边形图形中的应用 邱国清 (357)

工程图学

- 以学生为中心的机械制图混合式教学模式研究与实践
..... 丁 乔, 张孟玫, 李茂盛, 孙轶红, 韩丽艳 (362)
- 融合云课堂的“机械 CAD 基础”课程教学改革研究 王 珉, 张宗波, 牛文杰, 曹清园 (367)
- 多属性多关联的工程图学试题库与多路径智能组卷系统研究
..... 李瑞森, 张树有, 伊国栋, 薛立华, 谭建荣 (373)

CONTENTS

Image and Video Processing

- Single Side Page Extracting Method for 3D Book Model Based on Texture
..... TONG Lijing, WANG Fenghe, LI Bin (179)
- An Iterative Image Filter Based on Anisotropic Total Variation
..... LU Bibo, WANG Lerong, ZHENG Yanmei, WANG Yongmao, LI Xiaoying, QIN Yuxiang (186)
- A New Method for Image Deblurring and Clearness
..... WANG Wenhao, YAN Yongyang, JIANG Mingxin, YU Yongtao, ZHAO Wendong (193)
- Fusion of SAR and Visible Images Based on NSST-IHS and Sparse Representation
..... SHENG Jiajia, YANG Xuezhi, DONG Zhangyu, JIAO Wei (201)
- Registration Between SAR and Optical Images Based on an Improved Rapid Algorithm
..... ZHANG Wannan, YANG Xuezhi, DONG Zhangyu (209)
- A Thinning Method for International Phonetic Alphabet Characters..... SUN Xiaokun, HUANG Jifeng (214)

Computer Vision

- Surface Intersection Algorithm Based on Spatial Embedded Finite Element Model
..... WANG Jiwei, FU Yu, WANG Yajiang (221)
- Construction of Support Structure Based on Voxelization Models for 3D Printing
..... XU Wenpeng, MIAO Longtao, HOU Shouming, QIANG Xiaohuan, ZENG Yanyang (228)
- Low-Resolution RGB Image Guided Depth Image Super-Resolution
..... WU Yulong, ZHAO Yang, CAO Mingwei, LIU Xiaoping (235)
- Data Augmentation with Multi-Model Ensemble for Fine-Grained Category Classification
..... JIANG Jie, XIONG Changzhen (244)
- Recursion on Generalized Barycentric Coordinates..... QIAN Yijia, TANG Shuo, WANG Xuhui (251)

Computer Graphics

- Research on Packing Problem and Cutting Path Optimization of Rectangle with Surface Orbit Characteristics
..... ZHOU Jiali, GUO Qi, WU Chao, WU Min (256)
- An Improved Solid Boundary Treatment Algorithm of Fluid Simulation
..... ZHU Xiaolin, YIN Jingcun, WANG Huanhuan (263)
- The Dehazing Algorithm Based on Visual-Physical Model
..... MA Shiping, LI Quanhe, MA Hongqiang, BI Duyan (269)
- 3D Surfaces Reconstruction Algorithm Via Detaching Delaunay Triangular Mesh and Search-Ball Approach
..... YUAN Qinglie, WU Xuequn (278)
- Adaptive B-spline Curve Fitting Based on Regularized Progressive Iterative Approximation
..... LIU Mingzeng, GUO Qingjie, WANG Siqi (287)
- A Family of Spacial PH Curves Represented by Algebraic-Trigonometric Functions and Their Applications
..... WU Weidong, YANG Xunnian (295)

Virtual Reality / Augmented Reality

- Reducer Virtual Disassembly and Assembly Experiment Based on Unity3D
..... FENG Guizhen, CHI Jianbin, XING Haijun, ZHANG Zengqiang, JIA Shuang (304)
- Implementation and Application of 3D Virtual Hairstyle Try-on System Based on Mobile Platform
..... ZOU Xiao, CHEN Zhengming, ZHU Hongqiang, TONG Jing (309)
- VR System Information Visualization Model Cognition..... SUN Hui, LV Jian, CUN Wenzhe (317)
- Application of EEG Technology in Emotional Design of Cultural and Creative Products
..... DENG Li, CHEN Bo, PANG Qianyu, WEN Rong, XIE Bingyu (327)

Intelligent Design and Digital Design

- Research on BIM Parametric Modeling Method of Chinese Classical Architectures
..... GAO Dai, WANG Hongyang, DU Jiahe, CAI Ziang, LOBSANG Tstring (333)
- Research and Practice of Site Surveying by UAV LiDAR and BIM Planning Design
..... TIAN Xianbin, ZHANG Yongli, WU Jianwen, CAI Zhen, YU Yue (339)
- BIM Modeling Tool Development for Main Structure of Concrete Continuous Girder Based on Dassault CAA
Architecture QI Chenglong (346)
- The Method of 3D Anthropometry Automatically Extracted Based on Mesh Model
..... YU Ying, CHEN Jihua, LU Xueliang (352)
- Application of Region Filling Algorithm in Multi Nested Polygon Graph..... QIU Guoqing (357)

Engineering Graphics

- Research and Practice on Student-Centered Mixed Teaching Mode in Mechanical Engineering Graphics
..... DING Qiao, ZHANG Mengmei, LI Maosheng, SUN Yihong, HAN Liyan (362)
- Research on Teaching Reform of "Mechanical CAD Foundation" Course Combine with Cloud Classroom
..... WANG Min, ZHANG Zongbo, NIU Wenjie, CAO Qingyuan (367)
- Research on the Multiple Associated Engineering Graphics Test Database with Multi Attribute and the Multi-Mode
Intelligent Test Paper Generating System
..... LI Ruisen, ZHANG Shuyou, YI Guodong, XUE Lihua, TAN Jianrong (373)