

激光与光电子学进展

Laser & Optoelectronics Progress

[总第687期]

第 58 卷
第 4 期

2021.2(下)



ISSN 1006-4125



9 771006 412210

万方数据

DOI: 10.3788/LOP202158.0400001

中国科学院上海光学精密机械研究所 主办

激光与光电子学进展

—— 先进成像 ——

第 58 卷 第 4 期 2021 年 2 月

(总第 687 期)

目 次

• 综述 •

多光谱成像技术及其在生物医学中的应用(封面文章,特邀综述)	陈键伟, 龚辉, 袁菁	0400001
数码显微镜自动对焦算法	夏浩盛, 余飞鸿	0400002
面向视频图像的烟雾检测算法综述	陈长友, 杨健晟	0400003
基于特征融合方法的高光谱图像分类综述	刘玉珍, 朱珍珍, 马飞	0400004
基于深度学习的 SAR 图像舰船目标检测综述	侯笑晗, 金国栋, 谭力宁	0400005

• 探测器 •

基于改进 SSD 的 X 光图像管制刀具检测与识别	郭瑞鸿, 张莉, 杨莹, 等	0404001
---------------------------------	----------------	---------

• 傅里叶光学与信号处理 •

深度学习在卫星激光测距数据处理中的应用	冯凯斌, 汤儒峰, 李荣旺, 等	0407001
用于光谱重叠峰和太赫兹波时域曲线的高斯拟合算法	杨家懿, 熊永前	0407002

• 全息 •

线偏光全息的正交再现	吴晨灏, 陈宇昕, 黄志云, 等	0409001
------------------	------------------	---------

• 图像处理 •

基于亮度通道细节增强的低照度图像处理	蒋一纯, 詹伟达, 朱德鹏	0410001
基于灰度共生矩阵的多尺度分块压缩感知算法	李金凤, 赵雨童, 黄纬然, 等	0410002
Self-Att-BiLSTM: 一种面向业务流程活动与时间的多任务预测方法	贺琪, 杨巧青, 黄冬梅, 等	0410003
基于多尺度 Retinex 和暗通道的自适应图像去雾算法	彭静, 薛奉金, 苑玉彬	0410004
基于改进光线投射算法的室内烟雾可视化研究	刘颖, 陆后军, 裴道方	0410005
基于改进 GMM 和多特征融合的视频火焰检测算法	张驰, 孟庆浩, 井涛	0410006
基于注意力机制与迁移学习的乳腺钼靶肿块分类	许文慧, 裴以建, 郜冬林, 等	0410007
基于粗糙度测量和颜色距离的织物缺陷检测方法	任梦凡, 朱磊, 马晓敏, 等	0410008
融合 GMS 检测和置信度判别的 TLD 目标跟踪	郭伟, 杨琛, 曲海成, 等	0410009
基于掩模搜索的快速尺度不变特征变换图像匹配算法	王昱皓, 唐泽恬, 钟岷哲, 等	0410010
基于目标检测网络的摄影测量编码点定位	秦大辉, 程栋, 苏铭著, 等	0410011
结合场景描述的文本生成图像方法	黄友文, 周斌, 唐欣	0410012
基于自注意力深度网络的图像超分辨率重建方法	陈子涵, 吴浩博, 裴浩东, 等	0410013

Laser & Optoelectronics Progress

— Advanced Imaging —

Vol. 58, No. 4 (Series No. 687) February 2021

CONTENTS

• Reviews •

Multispectral Imaging Technology and Its Applications in Biomedicine(Cover Paper,Invited)

..... Chen Jianwei , Gong Hui , Yuan Jing 0400001

Auto Focusing Algorithm of Digital Microscope Xia Haosheng , Yu Feihong 0400002

Review on Smoke Detection Algorithms for Video Images Chen Changyou , Yang Jiansheng 0400003

Review of Hyperspectral Image Classification Based on Feature Fusion Method

..... Liu Yuzhen , Zhu Zhenzhen , Ma Fei 0400004

Survey of Ship Detection in SAR Images Based on Deep Learning Hou Xiaohan , Jin Guodong , Tan Lining 0400005

• Detectors •

X-Ray Image Controlled Knife Detection and Recognition Based on Improved SSD

..... Guo Ruihong , Zhang Li , Yang Ying , et al . 0404001

• Fourier Optics and Signal Processing •

Application of Deep Learning in Data Processing of Satellite Laser Ranging

..... Feng Kaibin , Tang Rufeng , Li Rongwang , et al . 0407001

Gaussian Fitting Algorithm for Spectral Overlapping Peaks and Terahertz Time-Domain Curves

..... Yang Jiayi , Xiong Yongqian 0407002

• Holography •

Orthogonal Reconstruction in Linear Polarization Holography

..... Wu Chenhao , Chen Yuxin , Huang Zhiyun , et al . 0409001

• Image Processing •

Low-Illuminance Image Processing Based on Brightness Channel Detail Enhancement

..... Jiang Yichun , Zhan Weida , Zhu Depeng 0410001

Multi-Scale Block Compressed Sensing Algorithm Based on Gray-Level Co-Occurrence Matrix

..... Li Jinfeng , Zhao Yutong , Huang Weiran et al . 0410002

Self-Att-BiLSTM: A Multitask Prediction Method for Business Process Activities and Time

..... He Qi , Yang Qiaoping , Huang Dongmei , et al . 0410003

Adaptive Image Defogging Algorithm Combining Multi-Scale Retinex and Dark Channel

..... Peng Jing , Xue Fengjin , Yuan Yubin 0410004

Indoor Smoke Visualization Based on the Improved Ray-Casting Algorithm

..... Liu Ying , Lu Houjun , Chang Daofang 0410005

Video Flame Detection Algorithm Based on Improved GMM and Multi-Feature Fusion

..... Zhang Chi , Meng Qinghao , Jing Tao 0410006

Mass Classification of Breast Mammogram Based on Attention Mechanism and Transfer Learning

..... Xu Wenhui , Pei Yijian , Gao Donglin , et al . 0410007

Fabric Defect Detection Method Based on Coarseness Measurement and Color Distance

..... Ren Mengfan , Zhu Lei , Ma Xiaomin , et al . 0410008

TLD Target Tracking Fused with GMS Detection and Confidence Discrimination

..... Guo Wei , Yang Chen , Qu Haicheng , et al . 0410009

Image Matching Algorithm for Fast Scale-Invariant Feature Transformation Based on Mask Search

..... Wang Yuhao , Tang Zetian , Zhong Minzhe , et al . 0410010

Photogrammetric Coded Point Localization Based on Target Detection Network

..... Qin Dahui , Cheng Dong , Su Mingzhu , et al . 0410011

Text Image Generation Method with Scene Description Huang Youwen , Zhou Bin , Tang Xin 0410012

Image Super-Resolution Reconstruction Method Based on Self-Attention Deep Network

..... Chen Zihan , Wu Haobo , Pei Haodong , et al . 0410013

Yarn Defects Detection Algorithm Combined with Spatial Fuzzy C-Means Clustering

..... Zhao Yan , Zhang Huanhuan , Jing Junfeng , et al . 0410014

Construction of Semantic Segmentation Dataset of Camouflage Target Image	<i>Liang Xinyu, Lin Haokun, Yang Hui, et al.</i>	0410015
Strip Defect Classification Based on Improved Generative Adversarial Networks and MobileNetV3	<i>Chang Jiang, Guan Shengqi, Shi Hongyu, et al.</i>	0410016
Low Illumination Image Processing Based on Adaptive Threshold and Local Tone Mapping	<i>Cao Hongyan, Liu Changming, Shen Xiaolin, et al.</i>	0410017
Speckle Quality Evaluation Based on Gray Level Co-Occurrence Matrix	<i>Chu Lu, Liu Bin, Xu Liang, et al.</i>	0410019
Wheelset Tread Defect Detection Method Based on Target Detection Network	<i>Zhang Li, Huang Danping, Liao Shipeng, et al.</i>	0410020
Color Image Encryption Based on Symmetry of Fourier Transform and R-MRSVD	<i>Wang Xue, Shao Zhuhong, Wang Yunfei, et al.</i>	0410021
Magnetic Resonance Imaging Brain Tumor Image Segmentation Based on Improved U-Net	<i>Mu Haiwei, Guo Ying, Quan Xinghui, et al.</i>	0410022
TDFF: Strong Robust Algorithm for Smoke Image Detection	<i>Wang Weigang, Wang Bingwei, Zhang Yunwei</i>	0410023
Image Deraining Algorithm via Multiflow Expansion Residual Dense Network	<i>Wang Weiwei, Zhai Yayu, Chen Ping, et al.</i>	0410024
Pedestrian Attribute Recognition Algorithm Based on Multi-Scale Attention Network	<i>Li Na, Wu Yangyang, Liu Ying, et al.</i>	0410025
• Imaging Systems •		
Modal Identification Method of Blade Based on Photogrammetry and Improved ERA	<i>Quan Weiming, Guo Yingfu, Wang Wenyun, et al.</i>	0411001
Depth Detection of Material Surface Defects Based on Laser Thermography	<i>Liu Jiaqi, Zhang Zhijie, Lin Zhenyu, et al.</i>	0411002
Loop-Closure Detection Using Image Sequencing Based on ResNet	<i>Zhan Hao, Zhu Zhencai, Zhang Yonghe, et al.</i>	0411003
• Machine Vision •		
Visual Odometry Algorithm Based on Deep Learning	<i>Zhang Zaiteng, Zhang Rongfen, Liu Yuhong</i>	0415001
Multi-Moving Object Detection Based on Edge Multi-Channel Gradient Model	<i>Chen Jieyu, Xi Zhenghao, Lu Junxin</i>	0415002
Fast Reconstruction Algorithm of Point Cloud Implicit Surface	<i>Wang Lianzhe, Han Jungang, Lu Sheng, et al.</i>	0415003
Multimodel Integrated Siamese Network Visual Tracking	<i>Che Manqiang, Li Shubin, Ge Jinpeng</i>	0415004
Ship Target Detection in Optical Remote Sensing Images Based on Spatial and Frequency Features	<i>Li Jingyuan, Li Xiaorun, Zhao Liaoying</i>	0415005
Dual-Band Scene Classification Based on Convolutional Features and Bayesian Decision	<i>Qiu Xiaohua, Li Min, Zhang Liqiong, et al.</i>	0415006
Registration and Optimization Algorithm of Key Points in Three-Dimensional Point Cloud	<i>Song Tao, Cao Libo, Zhao Mingfu, et al.</i>	0415008
Classification Method of Crossing Vehicle Based on Improved Residual Network	<i>Li Yuxin, Yang Fan, Liu Zhao, et al.</i>	0415009
Algorithm for Stereo Matching Based on Multi-Task Learning	<i>Wang Yufeng, Wang Hongwei, Liu Yu, et al.</i>	0415010
Three-Dimension Face Acquisition with Rotating Speckle Structured Light Projection	<i>Zhou Pei, Zhu Jiangping, Kong Lingyin, et al.</i>	0415019
• Optics in Computing •		
Improved Fruit Fly Algorithm to Optimize Generalized Regression Neural Network of Double Notch Ultra-Wideband Antenna Modeling	<i>Nan Jingchang, Cao Xinyuan, Gao Mingming, et al.</i>	0420001
• Remote Sensing and Sensors •		
Lidar Ground Segmentation Method Based on Point Cloud Cluster Combination Feature	<i>Shao Jingtao, Du Changqing, Zou Bin</i>	0428001
Ground Experimental System for Satellite Dynamic Imaging Mode	<i>Yang Mu, Cheng Shaoyuan, Cui Chengguang, et al.</i>	0428002
Extraction Method of Urban Area From GF-6 Satellite	<i>Ji Changdong, Kang Zhonglin</i>	0428003
• Spectroscopy •		
Fluorescence Spectroscopy Characteristics of Radix <i>Salviae Miltiorrhizae</i> Powder Using Three-Dimensional Synchronous Fluorescence Combined with Parallel Factor Algorithm	<i>Li Lei, Wu Qingzhou, Wang Tao</i>	0430001

激光与光电子学进展

Laser & Optoelectronics Progress

特别专辑

“先进成像”封面文章

2020年



万方数据

中国科学院上海光学精密机械研究所 主