

目 次

· 综述 ·

带 SBS 相位共轭镜的高重复频率高功率激光系统研究进展	王昊成 樊仲维 余 锦 等	040001
滚转角测量方法综述	翟玉生 张志峰 苏玉玲 等	040002
手性耦合纤芯光纤简介及研究进展	赵 楠 李进廷	040003
美国月球激光通信演示验证——实验设计和后续发展	宋婷婷 马 晶 谭立英 等	040004

· 大气光学与海洋光学 ·

直接斜率法畸变波前校正的研究	许泽帅 羊 毅 兰卫华 等	040101
----------------------	---------------	--------

· 探测器 ·

具有两级放大的平衡零拍光电探测器	郑公爵 戴大鹏 方银飞 等	040401
------------------------	---------------	--------

· 光纤光学与光通信 ·

6 mm 碳钢板的激光切割性能	徐国建 李宏利 杭争翔 等	040601
光突发交换网络中基于突发包分段的联合冲突解决方法研究	管爱红 张海芳 李青海	040602
基于高双折射光子晶体光纤的 Sagnac 环级联滤波器	吉正继 武向农 殷 业 等	040603
求解非线性薛定谔方程的几种方法	员保云 庞 晶	040604
分布式侧面耦合包层抽运光纤激光器数值模拟	黄值河 曹润秋 郭少锋 等	040605
光通信中卫星振动抑制的自适应复合控制	覃 浩 付承毓 黄永梅	040606

· 全 息 ·

多三维物体非涅耳变换数字实现方法	陈家祯 郑子华 连桂仁	040901
数字成像时间平均全息振动分析	盛 伟 李季平	040902

· 图像处理 ·

基于 TMS320C6678 的 KLT 跟踪算法的改进与实现	胡 楷 钱惟贤 陈 钱 等	041001
基于改进正态分布变换算法的点云配准	张 晓 张爱武 王致华	041002
红外与可见光图像的变分增强融合算法研究	陈 磊 杨风暴 王志社 等	041003
基于小波边缘提取的目标光学相关识别	洪雪婷 石晓卫 钱义先	041004
一种基于线结构光的焊缝三维重建方法	郑鹭斌 王晓栋 严 菲	041005
基于激光雷达数据阴影处理和图像融合的地物分类方法	梁小伟 杨风暴 卫 红 等	041006

· 成像系统 ·

基于不同调制方法产生赝热光源的性能比较	范晓磊 张二峰 徐耀坤 等	041101
人眼像差校正线性二次高斯优化控制研究	王 波 钮赛赛 吴卫明	041102

· 仪器, 测量与计量 ·

基于 Matlab 和 VC 混合编程的三面互检程序设计	周 游 刘世杰	041201
圆柱型高精度零件表面缺陷检测及形貌分析	苏俊宏 刘胜利	041202

· 激光器与激光光学 ·

厄米-余弦-高斯光束通过负折射率平板材料的传输特性	霍雅洁 张廷蓉 包建勤	041401
姿态误差对机载激光多普勒三维速度测量精度的影响	张月新 牛燕雄 韩凤山 等	041402

· 医用光学与生物技术 ·

三层介质中激光扫描共聚焦显微镜的模型	肖 昀 张运海 武晓东 等	041701
--------------------------	---------------	--------

· 光学器件 ·

抽运光频率对全光 Cs 原子磁力仪灵敏度的影响	刘 强 卓艳男 孙宇丹 等	042301
基于数值模拟技术的光子晶体点缺陷透射特性分析	赵年顺 官骏鸣	042302
舰载光电跟踪系统视场消旋方法研究	吕 舒 张涯辉 包启亮 等	042303

· 光谱学 ·

三维荧光光谱技术结合 PLSR 在鸭肉中西维因残留检测的应用	肖海斌 赵进辉 刘木华 等	043001
紫外-可见吸收光谱法水质检测系统的噪声分析与处理研究	汤 斌 魏 彪 毛本将 等	043002

CONTENTS

• General •

Research Progress of High Repetition Rate and High Power Laser with SBS-Phase Conjugate Mirror	040001
..... Wang Haocheng Fan Zhongwei Yu Jin et al.	
Survey of Rolling Angle Measurement Methods	040002
..... Zhai Yusheng Zhang Zhifeng Su Yuling et al.	
Introduction and Progress of Chirally-Coupled Core Fiber	040003
..... Zhao Nan Li Jinyan	
Experiment Design and Development of the Lunar Laser Communication Demonstration in USA	040004
..... Song Tingting Ma Jing Tan Liying et al.	

• Atmospheric and Ocean Optics •

Correction of Distorted Wavefront Based on Direct Wavefront Gradient Algorithm	040101
..... Xu Zeshuai Yang Yi Lan Weihua et al.	

• Detectors •

Balanced Homodyne Detector Based on Two-Stage Amplification	040401
..... Zheng Gongjue Dai Dapeng Fang Yinfei et al.	

• Fiber Optics and Optical Communications •

Performance of 6 mm Mild Steel Sheet Laser Cutting	040601
..... Xu Guojian Li Hongli Hang Zhengxiang et al.	
Composite Contention Resolution Mechanism Based on Burst Segmentation in Optical Burst Switching Networks	040602
..... Guan Aihong Zhang Haifang Li Qinghai	
Sagnac Loop Cascaded Filter Based on Highly Birefringent Photonic Crystal Fiber	040603
..... Ji Zhengji Wu Xiangnong Yin Ye et al.	
Several Methods for Solving Nonlinear Schrödinger Equation	040604
..... Yuan Baoyun Pang Jing	
Simulation of the Distributed Side-Coupled Cladding-Pumped Fiber Lasers	040605
..... Huang Zhihe Cao Jianqiu Guo Shaofeng et al.	
Adaptive Composite Control for Jitter Rejection of Satellite in Optical Communications	040606
..... Qin Hao Fu Chengyu Huang Yongmei	

• Holography •

Digital Realization Method for Fresnel Transform of Multiple Three-Dimensional Objects	040901
..... Chen Jiazhen Zheng Zihua Lian Guiren	
A Vibration Analysis by Digital Imaging Time-Average Holography	040902
..... Sheng Wei Li Jiping	

• Image Processing •

Improvement and Implementation of KLT Tracking Algorithm Based on TMS320C6678	041001
..... Hu Kai Qian Weixian Chen Qian et al.	
Point Cloud Registration Based on Improved Normal Distribution Transform Algorithm	041002
..... Zhang Xiao Zhang Aiwu Wang Zhihua	
Research on Fusion Algorithm of Infrared and Visible Imagery Based on Variational Enhanced Model	041003
..... Chen Lei Yang Fengbao Wang Zhishe et al.	
Optical Correlation Recognition Based on Edge Detection of Wavelet Transform	041004
..... Hong Xueting Shi Xiaowei Qian Yixian	
3D Reconstruction Method Based on Linear-Structured Light Stripe for Welding Seam	041005
..... Zheng Lubin Wang Xiaodong Yan Fei	
Land-Cover Classification Based on Dealing with Shadows and Fusing Lidar Data	041006
..... Liang Xiaowei Yang Fengbao Wei Hong et al.	

• Imaging Systems •

Comparison of Pseudo-Thermal Light Source Based on Different Method of Modulation	041101
..... Fan Xiaolei Zhang Erfeng Xu Yaokun et al.	
Linear Quadratic Gaussian Optimal Control for Human Eye Aberration Correction	041102
..... Wang Bo Niu Saisai Wu Weiming	

• Instrumentation, Measurement and Metrology •

Three-Flat Testing Program Design Based on Matlab and VC Mixed Programming	041201
..... Zhou You Liu Shijie	
Measure System of Surface Flaw and Morphology Analysis of Cylindrical High Precision Parts	041202
..... Su Junhong Liu Shengli	

• Lasers and Laser Optics •

Propagation Properties of Hermite-Cosine-Gaussian Beam Through a Negative Refractive Index Materials Slab	041401
..... Huo Yajie Zhang Tingrong Bao Jianqin	
Impact of Attitude Errors on Three-Dimensional Velocity Measurement Accuracy of Airborne Laser Doppler	041402
..... Zhang Yuexin Niu Yanxiang Han Fengshan et al.	

• Medical Optics and Biotechnology •

Model of Laser Scanning Confocal Microscopy for Three Media	041701
..... Xiao Yun Zhang Yunhai Wu Xiaodong et al.	

• Optical Devices •

Influence of Pump Light Frequency on the Sensitivity of All-Optical Cs Atomic Magnetometer	042301
..... Liu Qiang Zhuo Yannan Sun Yudan et al.	
Analysis of Transmission Characteristics in Photonic Crystal Point Defects Based on Numerical Simulation Technology	042302
..... Zhao Nianshun Guan Junming	
Despinning Scheme of Shipboard Electro-Optical Tracking System	042303
..... Lü Shu Zhang Yahui Bao Qiliang et al.	

• Spectroscopy •

Application Study of Three-dimensional Fluorescence Spectroscopy Combined with PLSR for Carbaryl Residues in Duck Meat	043001
..... Xiao Haibin Zhao Jinhui Liu Muhua et al.	
Noise Analysis and Denoising Research on the UV-Visible Absorption Spectroscopy Water Quality Detection System	043002
..... Tang Bin Wei Biao Mao Benjiang et al.	