

## 目次

### 综述与评论

氟化物光纤级联激光器技术进展 ..... 白冲冲 李永亮 王斯琦等(1327)

### 激光应用技术

激光打标机在音圈切线中的应用分析 ..... 付强 张纪平 马维金等(1333)

基于相干探测的激光超声检测系统设计与实现 ..... 骆湘红 何宁 王明鹏等(1339)

基于 RBF 神经网络的高精度在线激光测厚算法 ..... 韩振松 杨永立 吴树元(1343)

同步扫描水下激光成像的角分辨率极限 ..... 何大华 李亚鹏(1349)

基于四象限探测器的光斑中心高精度定位算法 ..... 郭小康 张彦梅 贺仕杰(1353)

线阵扫描三维成像激光雷达系统 ..... 唐铂 李振华 王春勇等(1358)

### 激光器技术

LD 单端泵浦变热导率 Nd:YAG 圆棒热容激光器温度场 ..... 李隆 潘晓瑞 耿鹰鸽(1365)

### 红外技术及应用

红外探测器测试系统噪声分析与抑制方法研究 ..... 贾天石 崔坤 薛玉龙等(1373)

飞机发动机尾流场数值模拟与红外特性计算 ..... 吴沿庆 廖守亿 张作宇等(1380)

### 红外材料与器件

面向 MEMS 红外光源的辐射增强结构设计 ..... 刘卫兵 明安杰 谭秋林等(1386)

### 光电技术与系统

基于陀螺稳定的机载光电转塔系统建模与仿真 ..... 余驰(1392)

### 光纤及光通讯技术

采用化学腐蚀法制备光纤 Fabry-Perot 应变传感器 ..... 上官春梅 何巍 娄小平等(1399)

基于 AMC 和 HARQ 的大气激光通信跨层系统性能研究 ..... 王磊 郝士琦 赵青松等(1405)

空间光通信视音频同步无线传输技术研究 ..... 王丹 李真 周文超等(1411)

### 光电对抗

岸海要地防空激光威胁环境及对抗方法 ..... 宗思光 曹水 邓银港(1416)

### 光学技术

大口径空间反射镜轻量化设计及其柔性支撑 ..... 李慎华 关英俊 辛宏伟等(1422)

被动消热差的大口径离轴光学系统 ..... 刘琳 李林(1428)

### 图像与信号处理

基于小波变换的结构光光条图像去噪方法 ..... 刘干 邵新杰(1433)

基于自适应补偿的电子稳像方法 ..... 尹丽华 李范鸣 刘士建(1438)

基于场景特殊区域的非均匀校正去鬼影算法 ..... 李成立 吕俊伟 任建存等(1446)

---

## CONTENTS

### Overview & Comment

- (1327) Technology progress of fluoride cascade fiber laser ..... BAI Chong-chong *et al*

### Laser Application Technology

- (1333) Application of laser marking machine in tangent line of voice coil ..... FU Qiang *et al*  
(1339) Design and implementation of laser ultrasonic testing system based on coherent detection ..... LUO Xiang-hong *et al*  
(1343) The online algorithm of high-accuracy laser thickness measurement based on RBF neural network ... HAN Zhen-song *et al*  
(1349) Angular resolution limitation of synchronous scanning underwater laser imaging system ..... HE Da-hua *et al*  
(1353) Study on high precision positioning algorithm of spot center based on the four-quadrant detector ..... GUO Xiao-kang *et al*  
(1358) 3D imaging laser radar based on laser array and APD array ..... TANG Bo *et al*

### Laser Technology

- (1365) Temperature field of variable thermal-conductivity Nd : YAG circle heat capacity laser single-end-pumped by LD ..... LI Long *et al*

### Infrared Technology & Application

- (1373) Research on noise analysis and suppression method of infrared detector test system ..... JIA Tian-shi *et al*  
(1380) Numeric simulation of flow field and calculation of IR characteristics for aircraft engine ..... WU Yan-qing *et al*

### Infrared Material & Device

- (1386) Design of radiation enhancement structure for MEMS infrared source ..... LIU Wei-bing *et al*

### O – E Technology & System

- (1392) Modeling and simulation of airborne optical-electronic turret system based on gyro stabilization ..... YU Chi

### Optical Fiber & Optical Communication

- (1399) Optical fiber Fabry-Perot strain sensor based on chemical etching method ..... SHANGGUAN Chun-mei *et al*  
(1405) Performance analysis of atmospheric laser communication based on AMC and HARQ ..... WANG Lei *et al*  
(1411) Research on video and audio synchronous wireless transmission in space optical communication system ..... WANG Dan *et al*

### O – E Countermeasure

- (1416) Laser threaten environment and countermeasure for the port wharf's air defense ..... ZONG Si-guang *et al*

### Optical Technology

- (1422) Lightweight design and flexible support of large diameter mirror in space camera ..... LI Shen-hua *et al*  
(1428) Large aperture off-axis optical system with passive athermalization ..... LIU Lin *et al*

### Image & Signal Processing

- (1433) Denoising of structured light stripe image based on wavelet transform ..... LIU Gan *et al*  
(1438) Electronic image stabilization method based on adaptive compensation ..... YIN Li-hua *et al*  
(1446) Nonuniformity correction deghosting algorithm based on special regions of scene ..... LI Cheng-li *et al*