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目 次

科研论文

- 变分贝叶斯框架中的多帧图像盲超分辨
..... 闵 雷, 杨 平, 许 冰, 刘 永 180149
- OAM 光束短距离自由空间传输特性的实验研究
..... 席 瑞, 朱 冰 180386
- 基于深度迁移学习的微型细粒度图像分类
..... 汪荣贵, 姚旭晨, 杨 娟, 薛丽霞 180416
- 基于和表的互相关计算方法在超声弹性成像中
的性能分析
..... 彭 博, 罗莎莎, 杨 烽, 姜劲枫 180437
- 基于自适应阈值的干涉高光谱图像稀疏重建
..... 温 佳, 刘明威, 崔 军, 闫淑霞 180443
- 日盲型光电倍增管的制备及性能研究
..... 党向瑜 180460
- 结合多尺度分解和梯度绝对值算子的显微图像
清晰度评价方法
..... 崔光茫, 张克奇, 毛 磊, 徐之海, 冯华君 180531
- 基于字典算法的 OCT 图像散斑稀疏降噪
..... 王 帆, 陈明惠, 高乃珺, 张晨曦, 郑 刚 180572
- 基于 SLIC 与分水岭算法的彩色图像分割
..... 侯志强, 赵梦琦, 余旺盛, 李宥谋, 马素刚 180589
- 电润湿电子纸的实时动态显示驱动系统实现
..... 钱明勇, 林珊玲, 曾素云,
林志贤, 郭太良, 唐 彪 180623

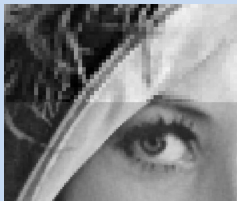
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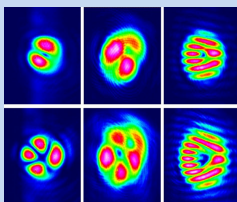
Contents

Article



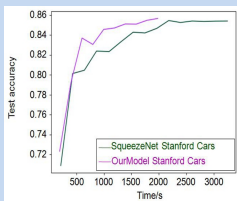
- Multi-image blind super-resolution in variational Bayesian framework** 180149
Min Lei, Yang Ping, Xu Bing, Liu Yong

The super-resolution method based on the variational Bayesian method was acquired. The high-resolution image, the blur kernel and the model parameters were estimated simultaneously and automatically in the optimal stochastic sense.



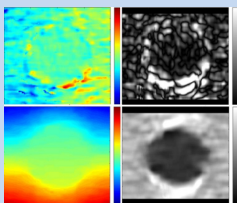
- Experimental study on short-distance free-space transmission characteristics of OAM beam** 180386
Xi Rui, Zhu Bing

A digital micromirror device (DMD) was used in the experimental setup to generate the OAM beam, and a spatial beam analyzer was used to measure the intensity pattern of the OAM beam. The beam broadening effect of the OAM beam at different transmission distances was studied.



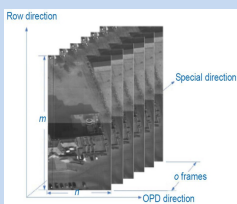
- Deep transfer learning for fine-grained categorization on micro datasets** 180416
Wang Ronggui, Yao Xuchen, Yang Juan, Xue Lixia

A novel deep transfer learning model was proposed, which transfers the learned representations from large-scale labelled fine-grained datasets to micro fine-grained datasets. The experiments showed that our model not only achieves high categorization accuracy but also economizes training time effectively.



- Performance analysis of a sum-table-based method for computing cross-correlation in GPU-accelerated ultrasound strain elastography** 180437
Peng Bo, Luo Shasha, Yang Feng, Jiang Jinfeng

The published ST-NCC method was implemented into GPU and its performance was evaluated for speckle tracking. Particularly, the performance of the ST-NCC method was compared to the classic method of computing NCC using simulated ultrasound data.



- Sparse reconstruction of interferometric hyperspectral image based on adaptive threshold** 180443
Wen Jia, Liu Mingwei, Cui Jun, Yan Shuxia

Based on the original algorithm of compressed sensing, an adaptive threshold-based orthogonal matching pursuit algorithm which is more suitable for interfering hyperspectral images was proposed.

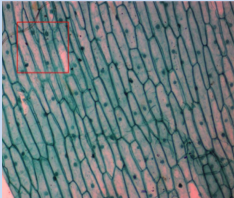


Preparation and properties of solar-blind photomultiplier tube

Dang Xiangyu

180460

The photocathode of solar-blind photomultiplier tube was Te-Cs, and the glass tube was synthetic quartz. The special oven with two lights was used to prepare solar-blind photomultiplier tube. The performance of solar-blind photomultiplier tubes was tested.

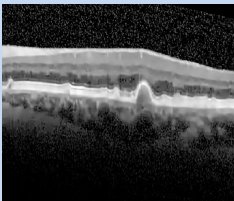


Micro-image definition evaluation using multi-scale decomposition and gradient absolute value

Cui Guangmang, Zhang Keqi, Mao Lei, Xu Zhihai, Feng Huajun

180531

Aimed at the problem of automatic focus and image system quality evaluation in microscopy imaging, a micro-image definition evaluation method was presented by combining multi-scale decomposition tools and absolute gradient operators.



OCT image speckle sparse noise reduction based on dictionary algorithm

Wang Fan, Chen Minghui, Gao Naijun, Zhang Chenxi, Zheng Gang

180572

Two original dictionary noise reduction algorithms were improved for multiplicative speckle noise in OCT. Compared with the traditional filtering algorithms, the noise reduction effect of the two improved dictionary algorithms was better than that of other algorithms, and the improved adaptive dictionary algorithm performs better.

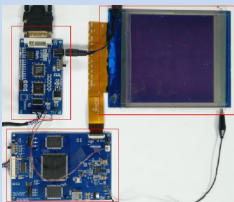


Color image segmentation based on SLIC and watershed algorithm

Hou Zhiqiang, Zhao Mengqi, Yu Wangsheng, Li Youmou, Ma Sugang

180589

In order to overcome the problem of over-segmentation caused by traditional watershed algorithm, a color image segmentation algorithm based on simple linear iterative clustering (SLIC) and watershed algorithm was proposed to achieve an ideal segmentation effect.



Real-time dynamic driving system implementation of electrowetting display

Qian Mingyong, Lin Shanling, Zeng Suyun, Lin Zhixian, Guo Tailiang, Tang Biao

180623

In order to achieve electrowetting real-time display, a display driving system is designed, and an improved multi-grayscale dynamic symmetrical driving waveform was proposed, which improves the ink-splitting phenomenon and suppresses the charge-trapping phenomenon while increasing the gray level.