

目 次

观点与争鸣

人工智能的 10 个重大数理基础问题.....1967
徐宗本

评述

智能视频监控关键技术：行人再识别研究综述.....1979
赵才荣，齐鼎，窦曙光，涂远鹏，孙添力，柏松，蒋忻洋，白翔，苗夺谦
宏观尺度下的分子通信原型机综述.....2016
黄煜，季飞，温淼文，陈绚，唐元锐，郑倍雄

论文

基于单簇聚类的非对齐多视图异常检测算法.....2037
史小艳，陈松灿
基于多头注意力网络的无监督跨媒体哈希检索.....2053
李志欣，凌锋，唐振军，马慧芳，施智平
融合梯度信息和邻域点云分布的 3D 线特征提取与配准.....2069
缪永伟，戴颖婷，王海鹏，刘复昌，王金荣
基于三维深度神经网络的大规模神经元形态表征与检索方法.....2089
常令琛，李钟毓，樊夏玥，高增谊，景海婷
面向预防性保护的文物本体智能原位监测系统.....2102
冯伟，张乾，田飞鹏，王小伟，柴勃隆，孙济洲，苏伯民
抗泄露的无证书密钥封装机制及应用.....2119
周彦伟，杨波，乔子芮，夏喆，张明武
频谱拥挤环境下雷达扩展目标探测极小极大波形设计.....2134
徐舟，朱家华，范崇祯，黄晓涛

Contents

CRITIQUES & DEBATES

- Ten fundamental problems for artificial intelligence: mathematical and physical aspects 1967
Zongben XU

REVIEW

- Key technology for intelligent video surveillance: a review of person re-identification 1979
Cairong ZHAO, Ding QI, Shuguang DOU, Yuanpeng TU, Tianli SUN, Song BAI, Xinyang JIANG,
Xiang BAI & Duoqian MIAO
- Survey on macro-scale molecular communication prototypes 2016
Yu HUANG, Fei JI, Miaowen WEN, Xuan CHEN, Yuankun TANG & Beixiong ZHENG

RESEARCH PAPER

- Non-aligned multi-view anomaly detection algorithms based on one-cluster clustering 2037
Xiaoyan SHI & Songcan CHEN
- Unsupervised cross-media Hashing retrieval based on a multi-head attention network 2053
Zhixin LI, Feng LING, Zhenjun TANG, Huifang MA & Zhiping SHI
- Extraction and registration of 3D lines by fusing gradient information and neighboring point cloud
distribution 2069
Yongwei MIAO, Yingting DAI, Haipeng WANG, Fuchang LIU & Jinrong WANG
- Large-scale neuron morphological representation and retrieval based on a three-dimensional deep neural
network 2089
Lingchen CHANG, Zhongyu LI, Xiayue FAN, Zengyi SHANG & Haiting JING
- An intelligent in-situ visual inspection system for preventive conservation of cultural heritages 2102
Wei FENG, Qian ZHANG, Fei-Peng TIAN, Xiaowei WANG, Bolong CHAI, Jizhou SUN & Bomin SU
- Leakage-resilient certificateless key-encapsulation mechanism and application 2119
Yanwei ZHOU, Bo YANG, Zirui QIAO, Zhe XIA & Mingwu ZHANG
- Radar minimax waveform design for extended target detection in the presence of spectrally crowded
environment 2134
Zhou XU, Jiahua ZHU, Chongyi FAN & Xiaotao HUANG