

# 南京师大学报

(自然科学版)

第 42 卷 第 3 期(总第 159 期)

2019 年 9 月

## 目 次

### · 全国机器学习会议论文专栏 ·

基于样本扩充的小样本车牌识别 .....	尤鸣宇, 韩 煜(1)
基于动态指导的深度学习模型稀疏化执行方法 .....	孙茹君, 张鲁飞(11)
基于深度网络和视觉特性的无参考图像质量评价方法 .....	高方远, 何立火(20)
注意力机制引导的多模态心脏图像分割 .....	杨琬琪, 周子奇, 郭心娜(27)
基于深度学习的 PM2.5 短期预测模型 .....	赵文芳, 林润生, 唐 伟, 周 勇(32)
基于决策树的乳腺癌病历文本的挖掘与决策 .....	龚乐君, 张立鹏, 李宇茜, 吴向辉, 高志宏, 潘传迪, 杨 庚(42)
周界防护的最优替换调度 .....	梁星星, 黄魁华, 马 扬, 陈 超, 孙博良, 马 豪, 张广平, 黄红蓝(52)
基于双向 LSTM 的手写文字识别技术研究 .....	张新峰, 闫昆鹏, 赵 瑲(58)
基于精英反向学习的逐维改进蜻蜓算法 .....	何 庆, 黄闽茗, 王 旭(65)
基于快速二层解修补策略的区间离散遗传算法 .....	李二超, 马玉泉(73)
基于树结构的层次性多示例多标记学习 .....	袁京洲, 高 昊, 周家特, 冯巧遇, 吴建盛(80)

使用条件生成对抗网络的自然图像增强方法 ..... 贾玉福,胡胜红,刘文平,王超,向书成(88)

### 交互式电力数据可视化与分析

..... 方思桐,汪秉鳌,高敏,钱荣涛,陈雪羿,申丽铭,张力丹,刘日晨,王琼(96)

基于手牌拆分的“斗地主”蒙特卡洛树搜索 ..... 彭啟文,王以松,于小民,刘满义,徐方婧(107)

基于改进的深度残差网络的图像识别 ..... 汤凯,何庆,赵群,王旭(115)

用于图像分割的非局部空间约束的核 FCM 算法 ..... 康家银,张文娟(122)

基于改进 SVM 的城市道路短时交通状态预测 ..... 闫贺,朱丽,戚湧(129)

电网故障智能诊断技术研究综述 ..... 刘仲民,呼彦喆,张鑫(138)

基于聚类核的核极速学习机 ..... 王丽娟,丁世飞(145)

### · 数学 ·

切模丛的构造及其性质研究 ..... 张飞军(151)

求解不可压 Navier-Stokes 方程的一种高效两水平方法 ..... 杜彬彬,黄建国(157)

### · 研究快报 ·

金沙江、雅鲁藏布江发现史前巨大洪水事件 ..... 吴庆龙(163)

---

[期刊基本参数]CN 32-1239/N \* 1955 \* q \* A4 \* 168 \* zh \* P \* ¥ 8.00 \* 950 \* 22 \* 2019-09

---

**JOURNAL OF NANJING NORMAL UNIVERSITY**  
**(Natural Science Edition)**

**Vol. 42 No. 3 (Sum. 159)**

**Sept, 2019**

**CONTENTS**

Small Sample License Plate Recognition Based on Sample Expansion .....	You Mingyu, Han Xuan(1)
Dynamic Sparse Method for Deep Learning Execution .....	Sun Ruijun, Zhang Lufei(11)
No-reference Image Quality Assessment Based on Deep Network and Visual Characteristics .....	Gao Fangyuan, He Lihuo(20)
Attention-Guided Multimodal Cardiac Segmentation .....	Yang Wanqi, Zhou Ziqi, Guo Xinna(27)
Forecasting Model of Short-Term PM2.5 Concentration Based on Deep Learning .....	Zhao Wenfang, Lin Runsheng, Tang Wei, Zhou Yong(32)
Mining and Decision-Making of Breast Cancer Medical Record Text Based on Decision Tree .....	Gong Lejun, Zhang Lipeng, Li Yuxi, Wu Xianghui, Gao Zhihong, Pan Chuandi, Yang Geng(42)
Optimal Replacement Scheduling for Perimeter Guarding .....	Liang Xingxing, Huang Kuihua, Ma Yang, Chen Chao, Sun Boliang, Ma Hao, Zhang Guangping, Huang Honglan(52)
Handwriting Chinese Text Recognition Using BiLSTM Network .....	Zhang Xinfeng, Yan Kunpeng, Zhao Xun(58)
Elite Opposition Learning-Based Dimension by Dimension Improved Dragonfly Algorithm .....	He Qing, Huang Minming, Wang Xu(65)
Interval Discrete Genetic Algorithms Based on Fast Two-Level Solution Repair Strategy .....	Li Erchao, Ma Yuquan(73)
A Hierarchical Multi-Instance Multi-Label Learning for Tree Structure Among Labels .....	Yuan Jingzhou, Gao Hao, Zhou Jiate, Feng Qiaoyu, Wu Jiansheng(80)
Wild Image Enhancement with Conditional Generative Adversarial Network .....	Jia Yufu, Hu Shenghong, Liu Wenping, Wang Chao, Xiang Shucheng(88)
Interactive Power Data Visualization and Analytics .....	Fang Sitong, Wang Lijun, Gao Min, Qian Rongtao, Chen Xueyi, Shen Liming, Zhang Lidan, Liu Richeng, Wang Qiong(96)
Monte Carlo Tree Search for “Dou Di Zhu” Based on Splitting .....	Peng Qiwen, Wang Yisong, Yu Xiaoming, Liu Manyi, Xu Fangjing(107)
Image Recognition Based on Improved Deep Neural Network .....	Tang Kai, He Qing, Zhao Qun, Wang Xu(115)
Kernelized FCM Algorithm with Non-Local Spatial Constraint for Image Segmentation .....	Kang Jiayin, Zhang Wenjuan(122)
Short-term Traffic Condition Prediction of Urban Road Based on Improved SVM .....	Yan He, Zhu Li, Qi Yong(129)
Research Review on Intelligent Fault Diagnosis Technology of Power Grid .....	Liu Zhongmin, Hu Yanzhe, Zhang Xin(138)
A Novel Extreme Learning Machine Based on Bagged Kernel .....	Wang Lijuan, Ding Shifei(145)
Study on Constructions and Properties of Tangent Module Bundles .....	Zhang Feijun(151)
An Efficient Two-Level Method for Solving Incompressible Navier-Stokes Equations .....	Du Binbin, Huang Jianguo(157)
Prehistoric Megafloods Discovered in Valleys of Yangtze River and Yarlung Zangbo River in China .....	Wu Qinglong(163)