

ISSN 1001-7119

全国中文核心期刊

中国科技核心期刊

科技通报



BULLETIN OF SCIENCE AND TECHNOLOGY

2012年10月第28卷 第10期
Vol.28 No.10 Oct. 2012

浙江省科学技术协会主办

Sponsored by Zhejiang Association for Science and Technology

ISSN 1001-7119



万方数据

中国·杭州

HANGZHOU CHINA

目 次

·数理科学和化学·

极值定理在复对称矩阵中的应用 陈云坤(1)
用纤毛束和膜电位耦合模型研究听觉毛细胞的非线性放大机制 韩丽娟(4)

·地球科学·

成都地区主要粘性土壤的矿物学特征 徐 速,徐冠立,孙传敏,孙 遥(7)
CO₂地质封存和提高天然气采收率 孙晓岭,曾凡桂,刘贺娟(11)
复杂地质条件下矿山地压控制研究 周盛全(14)

·工业技术·

基于 PIC18F4550 的环境监测数据采集系统设计 胡 刚,刘建鑫,郭 炜(17)
云计算科技服务系统平台设计研究 刘捡平,黄 勇,周西柳(19)
汽车钣金模具 CAD 技术研究 李柏青,赵文崇(22)
基于 EAP-TLS 的 WLAN 安全认证 齐惠英(25)
SOA 技术在高校采购管理系统中的应用 陈 聪(28)
小波神经网络改进算法在故障诊断中的应用 陈春燕(31)
基于空间插值算法在城市用水量预测中应用分析 赵海发,李小伟(34)
语义分析方法在 web 信息过滤中的应用 赵晓丽(37)
基于 IPSec 和 XML 的电子政务数据交换系统的设计 谷宁静(40)
一种区间可变的改进直方图均衡化算法研究 章 怡,王海峰(43)
基于流形学习的视频中文文本检测算法 王文震(46)
风向采集器软硬件设计 王仕平,樊昌元(49)
基于佩戴眼镜人脸图像识别方法研究与仿真 汪维东(52)
一种网络多次变异信息入侵检测算法 梁 力(55)

B/S 结构中的 MSSQL 与 XML 数据交换技术研究 曹帮琴,徐 昊(58)

基于邻域梯度图像拼接算法研究 张芳芳(61)

基于动态运动粒子模型的复杂织物三维模拟技术研究 冯朝荣(64)

基于 Petri 网的表空间备份算法仿真优化研究 丁豪杰,刘亚彬(67)

无线传感器网络簇头节点分配固定聚簇算法研究 刘 涛(70)

基于 Isomap 的人脸图像特征融合识别算法 刘 倩,张 洁,刘立波,唐晓芬(73)

表面设置防火涂料的 RC 柱抗火性能分析研究及应用 欧蔓丽,曹伟军,蒋隆敏,曹 晖(76)

基于 Huffman 染色体编码的抗早熟遗传算法研究 张 婵(81)

硬盘数据恢复的研究 林淑玲,李 存(85)

初馏塔设备负载安全仪表技术研究 胡晓峰,齐志辉,张 军,秦攀峰(88)

浅谈 ERP 系统中投资管理及项目系统模块(PS)的应用 冯媛媛(91)

混合 Forstner 算法和 SIFT 灰度图像特征点提取 张 艳,张志成(94)

HXD3 电力机车电气故障诊断专家系统的设计 吴海超,张安全(96)

基于能耗节约的异构无线传感器网络目标点覆盖算法 王富荣,张 宏(99)

智能服装机器自动加工中的不规则路径优化 安 哲(102)

基于改进椭圆加密算法的网络加密技术 邵明珠,李保华(104)

基于小波变换的变频器异常定位检测技术 彭小军(107)

强干扰情况下井下受困人员精确定位系统设计 朱学才(110)

智能电网漏电区域优化检测方法研究 刘兆瑜(113)

基于分层协作的垃圾短信过滤模型 甘金明,万 励,吴洁明(116)

定量分析法研究棉织物的抗紫外性能 吴 玥(119)

从网络层到应用层的搜索引擎防攻击体系研究 陈锦花,李晓丽(122)

改进的傅里叶变换在红外图像降噪中应用研究 陈佳音(126)

一种改进的神经网络算法车牌识别算法研究 蔡勇智(128)

一种基于运动特征聚合的三维织物模拟算法 李剑峰(131)

基于转换的错误驱动与决策树算法的句子边界自动识别 李康熙,李为山(134)

一种优化的无线资源分配架构和算法 李军政(137)

一种基于随机图像序列的三维人脸识别算法 温 雪(140)

基于约束校验的大型网络数据库查询方法研究 徐新爱(144)

一种减小误差传递的 WIFI 无线局域网中分层空时码检测算法 赵 菲(147)

计算机数字化技术在贵州民族非物质文化遗产保护中的应用探讨 袁 军(150)

基于 Web 的远程内容调用技术-Web JS 胡 飞(153)

云进化机器人路径规划算法 马占春,宁小美(155)

一种改进的基于 SVM 的网络入侵检测算法 阎 巍,南 洋(158)

颜色差值分类算法在草莓成熟程度检测中的应用 许丽建(160)

基于遗传优化 SVM 文本图像识别算法研究 杨春蓉,刘捡平(163)

混沌同步理论视频加密技术研究 曾凡培(165)

基于 SVM 的高校微机室入侵检测技术研究 李 新(168)

基于代理盲签名的车载自组网认证技术研究 徐 甜,宋 强(170)

基于兴趣的 Kademlia 网络资源搜索算法 付 雯,李 响(174)

基于概念格非功能属性的语义网络服务匹配方法 陈 林,石鲁生(176)

基于云-神经网络的故障诊断算法及其应用 郑志勇(180)

基于弱关联数据修补技术的数据库优化查询算法 陈良海(182)

加权模糊聚类彩色图像分割技术仿真研究 张新颜,白桂梅(186)

基于矢量量化的颜色量化方法 熊于菽,冉晟伊(188)

一种快速角点检测的远程图像快速拼接算法 刘 莹(191)

基于 Open Core 核心的 Android 平台视频监控系统设计 李元元(193)

高灵敏吸气式感烟火灾探测报警技术的应用研究 刘 伟,杨旭坤(196)

输油管道漏磁检测技术的研究与设计 王学力,马 蕾(199)

基于改进跟随蜂搜索过程的 ABC 算法 韦新丹(203)

基于网络的云存储模式的分析探讨 刘思得(206)

校园卡数据分析与综合预警管理系统研究 肖晓梅(210)

· 交通运输 ·

相关运行条件下的双跑道容量评估 武丁杰(213)

适应远洋航海职业教育的主机遥控系统的实现 朱永祥,张记超(217)

· 科学、教育 ·

运动处方教学对中高职贯通学生生理机能的影响 徐忠鸣,傅炜昶(220)

基于改进的遗传算法的学生成绩预测模型 罗永国(223)

基于信息孤岛消除的资源优化模型研究 李晓蕾(226)

企业科技人才继续教育与培养的思考 陈 岚,陈 洁(230)

CONTENTS

The Application of the Extremum Theorem in Complex Symmetric Matrix Chen Yunkun(1)

Enhancement of Sensitivity Gain and Frequency Tuning by the Mutual Coupling of Hair Bundle

 Motion and Membrane Voltage Change Han Lijuan(4)

Mineralogical Character of Main Clay Soils in Chengdu Xu Su, Xu Guanli, Sun Chuanmin, Sun Yao(7)

Geological Storage of CO₂ and Enhanced Gas Recovery Sun Xiaoling, Zeng Fangui, Liu Hejuan(11)

Research of the Distribution Mining Geostatic Pressure in Complicated Geological Conditions Control

..... Zhou Chengquan(14)

Design of A USB Data Acquisition System for Environment Monitoring Based on PIC18F4550 MCU

..... Hu Gang, Liu Jianxin, Guo Wei(17)

Cloud Computing Science and Technology Information Service System Platform Design

..... Liu Jianping ,Huang Yong ,Zhou Xiliu(19)

Automotive Sheet Metal Design Via CAD Technology Li Baiqing , Zhao Wenchong(22)

WLAN Security Authentication Based on EAP-TLS Qi Huiying(25)

The Application of College Purchase Management System Based on SOA Technology Chen Cong(28)

Application of Improved Wavelet Neural Network in Fault Diagnosis of Transformer Chen ChunYan(31)

Based on the Spatial Interpolation Algorithm in Forecasting City Water Application Analysis

..... Zhao Haifa ,Li Xiaowei(34)

The Application Research of Semantic Analysis Method in the Web Information Filtering Zhao Xiaoli(37)

Design of E-Government Data Exchange System Based on IPSec and XML Gu Ningjing(40)

Research of Improving Histogram Equalization Algorithm on Variable Section Zhang Yi, Wang Haifeng(43)

Automatic Chinese Text Detection in Video Frames Based on Manifold Learning Wang Wenzheng(46)

The Software And Hardware Design Of Wind Speed And Wind Dirrrction Collector

..... Wang Shiping ,Fan Changyuan(49)

Based on Wearing Glasses Face Image Recognition Method Research and Simulation Wang Weidong(52)

A Network Intrusion Detection Algorithm Information Many Variations Liang Li(55)

Research on Data Exchange Technology of MSSQL and XML Based on B/S Structure

..... Cao Bangqin, Xu Hao(58)

Research of Image Mosaic Algorithm Based on Neighborhood Gradient Zhang Fangfang(61)

Based on the Dynamic Movement Model of Complex Fabric Organization Three Dimensional Simulation

..... Feng Chaorong(64)

The Simulation Study on the Algorithm Optimization of the Backup of Table Space Based on the Petri Net

..... Ding Haojie ,Liu Yabin(67)

Fixed Clustering Algorithm for Determining the Cluster Heads in the Wireless Sensor Network Liu Tao(70)

Face Recognition Algorithm Based on Isomap Using Features Fusion

..... Liu Qian, Zhang Jie, Liu Libo, Tang Xiaofeng(73)

Analysis and Application of the Fire Resistance Performance of the RC Beam with Fire Retardant Coating Surface	Ou Manli, Cao Weijun , Jiang Longmin ,Cao Hui(76)
Huffman Coding Based on Chromosome Resistance of the Precocious Study Genetic Algorithm	Zhang chan(81)
The Research of Data Recovery for Hardware	Lin Shuiling,Li Cun(85)
The Primary Tower Equipment Load Safety Instrument Technology Research	Hu Xiaofeng ,Qi Zhihui ,Zhang Jun , Qin Panfeng(88)
A Brief Introduction of PS Module in ERP System	Feng Yuanyuan(91)
Hybrid Forstner Algorithm and SIFT Gray Image Feature Extraction	Zhang Yan , Zhang Zhicheng (94)
The Design of Electrical Fault Diagnosis Expert System for HXD3 Electric Locomotive	Wu Haichao ,Zhang Anquan(96)
Energy Saving Based Heterogeneous Wireless Sensor Networks Target Coverage Algorithm	Wang Furong,Zhang Hong(99)
From Clothing Machine to be Automatic Processing of Irregular Path Optimization	An Zhe(102)
Research of the Encryption Algorithm Based on Elliptic Network Encryption Technology	Shao Mingzhu,Li Baohua(104)
Accurate Location Detection Technology Based on Wavelet Transforms	Peng Xiaojun(107)
Accurate Location Situation Trapped Underground Staff Accurate Location System Design	Zhu Xuecai(110)
Power Grid Leakage Area Optimization Detecting Methods	Liu Zhaoyu(113)
Adaptive Short Message Filtering Model Based on Layers Cooperation	Gan Jinming ,Wan Li,Wu Jieming(116)
Quantitative Analysis Method for Anti-UV Ability of Cotton Fabric	Wu Yue(119)
Research on Search Engines Anti Attack System From Network Layer to Application Layer	Chen Jinhua,Li Xiaoli(122)
Research on the Improved FFT Algorithm in Image Denoising	Chen Jiajin(126)
License Plate Recognition Based on Improved Neural Network Algorithm	Cai Yongzhi(128)
Based on the Movement of Clustering 3 D Simulation Method Motion Estimation of Cloth	Li Jianfeng(131)
A Hybrid Algorithm for Sentence Boundary Detection Based on Transformation-based Error-driven Learning and Decision Tree	Li Kangxi, Li Weishan(134)
An Optimization of Resource Allocation Algorithm Framework and Wireless	Li Junzheng(137)
Based on a Random Image Sequence 3 D Face Recognition Algorithm	Wen Xue(140)
Based on the Constraints of the Large Network Database Query Calibration Method Research	Xu Xinai(144)
A Method of Suppress Interference Propagation for Layed Space Time Code Detection in WIFI Wireless LAN	Zhao Fei(147)
Computer Digital Technology 's Application Discussion in the GuiZhou Ethnic Non-material Cultural Heritage Protection	Yuan Jun(150)
Content Remote Call Technology Based on Web	Hu Fei(153)
Cloud Model Based Evolutionary Algorithm for Robot Path Planning	Ma Zhanchun1 ,Ning Xiaomei(155)
An Improved Algorithm for Network Intrusion Detection Based on SVM	Yan Wei,Nan Yang(158)
Color Difference in Strawberry Classification Algorithm of Maturity of the Application of the Test	Xu Li Jian(160)
Support Vector Machine Algorithm Based on Image Recognition	Yang Chunrong, Liu Jianping (163)
Chaotic Synchronization Theory Video Encryption Technology Research	Zeng Fanpei(165)
The Research of Intrusion Detection of College Room Based on SVM	Li Xin(168)
Research of a Authentication Scheme Based on the Proxy Blind Signature Scheme for the Vehicular Ad-hoc Networks	Xu Tian, Song Qiang(170)

The Network Resources Based on Interest Kademlia	
Search Algorithm	Fu Wen, Li Xiang(174)
Based on the Function of the Semantic Attribute Concept Lattice	
Network Service Matching	Chen Lin, Shi Lusheng(176)
Cloud Neural Network Based Fault Diagnosis Algorithm and its Application	Zheng Zhiyong(180)
Based on the Error Compensation Technology of Satellite Positioning Optimization Method	Chen Lianghai(182)
Weighted Fuzzy Clustering for Color Image Segmentation Research	Zhang Xinyan, Bai Guimei(186)
Image Color Quantization Base on Vector Quantization	Xiong Yushu, Ran Shengyi, Xu Su(188)
A Rapid Corner Detection Remote Image of Fast Stitching Method	Liu Ying(191)
Based on the Open Core Android Core Platform of Video Monitoring System Design	Li Yuanyuan(193)
High Sensitive Aspirated Feeling Smoke Fire Detection Alarm Technology Research	Liu Wei, Yang Xukun(196)
Research and Design of Oil Pipeline Leakage Detection Technology	Wang Xueli, Ma Lei(199)
ABC Algorithm Based on Improved Follow BeeSearch Process	Wei Xindan(203)
Discussion of the Cloud storage Model Based on the Network	Liu Side(206)
Campus Card Data Analysis and Comprehensive Early Warning Management System Research ...	Xiao Xiaomei(210)
The Evaluation of The Two-runway Capability Under the Dependent Approach	Wu Dingjie(213)
Implementation of Marine Main Engine Remote Control System Accommodated to Ocean Voyage Vocational Education	Zhu Yongxiang, Zhang Jichao(217)
The Effectiveness of Physiological Function of Vocational School Students by Exercise Prescription Teaching	Xu Zhongming, Fu Weichang(220)
Improved Genetic Algorithm Based Student Score Prediction Model	Luo Yongguo(223)
Based on the Information Resources Optimization Model of Eliminating the Island	Li Xiao Lei(226)
Thoughts on Enterprise Technology Professionals Continuing Education and Cultivation	Chen Lan, Chen Jie(230)

科技通报

KEJI TONBAO

刊名题词:潘云鹤

月刊 1985 年创刊

2012 年 10 月 15 日

第 28 卷 第 10 期(总第 172 期)

(Bimonthly) Started since 1985

Vol.28 No.10 Oct. 2012

《科技通报》第六届编辑委员会

主任委员:李兰娟

副主任委员:姚克 潘德炉 陈剑平 隗斌贤(常务)

委员(以姓氏拼音为序):

陈剑平	陈集双	龚晓南	何国庆	何泽荣
侯雪林	蒋德安	琚春华	隗斌贤	李兰娟
林岩	陆贻通	钮学新	潘德炉	钱伯初
钱江	陶敬轩	汪光年	王金福	汪鹏君
王树恩	吴嘉平	姚克	于秀源	余志豪
俞志华	张国平	张建国	钟明强	

总编:汪光年

主编:俞志华

编辑:于欣 周雪晴 王思琪

排版:毕建华 徐丹

主管主办:浙江省科学技术协会

编辑出版:科学 24 小时杂志社

地址:杭州西湖文化广场省科技馆东门 6 楼

邮编:310014

编辑一部:电话(传真):0571-85107609

E-mail: kjtb9999@yahoo.com.cn

编辑二部:电话(传真):0571-85626687

E-mail: kjtbgt@126.com

网址:www.kjtb.net

广告代理:北京创意在线信息技术研究院

广告经营许可证号:330100400130

印刷:杭州长命印刷有限公司

国内发行:浙江省报刊发行局

国外发行:中国国际图书贸易总公司

中国标准刊号:ISSN 1001-7119
CN 33-1079N

邮发代号:国内 32-95
国外 BM4363

国内定价:10元