



中文核心期刊
中国计算机用户协会会刊

ISSN 1006-9348

计算机仿真

COMPUTER SIMULATION



ISSN 1006-9348



11 >

9 771006 934033

万方数据

11
2013

目 次

综 述

计算机网络攻防建模仿真研究综述 李春亮, 司光亚, 王艳正(1)

军事领域仿真

复杂运动目标雷达回波建模及参数估计 赵会宁, 贺思三, 龙戈农(6)
 现代线性调频雷达干扰新技术研究 吴永刚, 郭树旭, 任磊, 程小苟(11)
 等离子体射流对 PDE 快速起爆影响的数值仿真 林玲, 翁春生(15)
 装备虚拟维修中的电路故障仿真研究 冉跃龙, 闫英敏, 吕秀平(20)
 多孔式喷管减后坐枪炮发射过程仿真与优化 咸东鹏, 廖振强, 宋杰, 李佳圣(24)

航空航天领域仿真

机载箔条质心干扰使用决策研究 杨哲, 李曙林, 周莉, 尹俊杰(28)
 中小型无人机建模分析与仿真研究 云超, 李小民, 郑宗贵, 刘品(32)
 基于云计算的卫星定位误差补偿方法的研究 刘镇, 王译, 徐优香(36)
 四旋翼飞行器悬停状态姿态控制建模与仿真 陈航科, 张东升, 盛晓超, 王凯(41)
 北斗卫星导航接收机中类相干积分算法 蔺晓龙, 何文涛, 徐建华, 叶甜春(46)
 电推进航天器的轨道转移优化设计 韩威华, 杨新, 姜萌哲(50)
 新型集成式氮气弹射系统机构仿真优化设计 甄建斌, 徐诚, 王涛(54)
 捷联式惯性导航系统轨迹发生器设计与仿真 翟昆明, 何文涛, 徐建华, 叶甜春(58)

能源领域仿真

基于支持向量回归的电力系统短期负荷预测 邱存勇, 肖建(62)
 海上油井用井下水力旋流器数值仿真研究 张晓林, 董祥伟, 李增亮, 孟繁宇(66)
 基于双二极管模型的光伏阵列模型优化设计 许鹏, 侯金明, 苑登阔(71)
 MAS 在中低压电网智能电压优化中的研究应用 郑伟, 王林信, 梁琛, 高春雷(76)
 基于专家经验的神经元 PID 控制主汽温系统 施爱平, 施健, 施允洋(80)
 水轮机调节系统的模糊滑模变结构控制 李乾勇, 何晓琼, 周瑛英(84)
 锅炉燃烧优化多目标预测控制方法研究 周霞(89)
 基于优化神经网络的短期电力负荷预测 吴桂峰, 王轩, 陈东雷(95)
 小型流化床锅炉燃烧系统机理建模研究 张悦, 杨永超, 柴佳林, 吴毅(100)
 分散控制系统中数据库的应用研究 张秋实, 全卫国, 于浩进(104)
 循环流化床锅炉床温建模研究 杨永超, 孙海蓉, 张悦(108)
 300MW 机组空冷岛温度监测系统的设计 金秀章, 许铁, 张建辉(112)
 分布式生物质能冷热电联产系统方案设计初探 李大中, 王鹏鹏(115)

交通体系与工具仿真

基于滑移率的 CVT 最佳夹紧力控制研究 张勇, 周云山, 蔡源春(120)
 汽车发动机 GDI 喷油器喷孔流动特性的研究 朱希, 张振东, 郭辉, 尹丛勃(125)
 基于多信息融合的车辆状态参数估计 王建锋, 李平(131)
 冲击载荷作用下的空降车累积损伤评估方法 李建阳, 王红岩, 洪煌杰, 芮强(137)
 基于左上边缘点检测的快速车牌定位算法 王剑书, 樊养余, 张辰锐(143)
 基于安时积分法的电池 SOC 估算误差校正 鲍慧, 于洋(148)
 分布式驱动电动汽车电机容错控制策略的研究 刘新磊, 何洪文, 王喜明, 彭剑坤(152)
 基于多尺度小波支持向量机的交通流预测 满瑞君, 梁雪春(156)
 电动汽车再生制动控制策略研究 翟志强, 赵国柱, 朱思洪(160)
 线控转向汽车路径跟踪控制策略研究 姚江云, 齐保谦, 孔峰(164)
 基于统计变换直方图的煤炭识别算法的研究 郭富荣, 申闫春(169)

信息仿真

基于混沌复合序列的直扩系统及其性能分析 杜秀丽, 甄旭亮, 陈波(173)
 星载 AIS 信号的非相干检测 方婷, 马社祥, 孟鑫(177)
 协同通信过程的调节优化过程仿真分析 赵哲, 张志彦(182)
 基于时间结构的盲信号提取不动点算法 张守成, 张玉洁, 郑锐(186)
 双频圆极化微带天线的优化设计方法研究与仿真 张敏, 张琦, 景占荣(190)
 高速移动节点错位网络通信优化方法研究 张卫明(194)
 楼宇中火灾信号远程传递优化方法研究 余成林, 王素丽(198)

移动网络通信中的遮挡衰减通信优化方法仿真	郑 强,高鉴伟(202)
基于 DM8168 的视频会议服务器的设计与实现	陈 玲,李昊然,谷源涛,林孝康(206)
大规模三维城市场景模型的流式传输策略	任慧玲,申国春(209)

社会科学领域仿真

二手房价格信息传递仿真	张 红,张 洋(214)
-------------	--------------

仿真应用研究

气动退化图像自适应空域正则化复原	孙李辉,李俊山(218)
高速电磁阀动态响应特性的仿真分析	李春青,姜 峰,李明海,杨年炯(224)
一类恒李雅普诺夫指数混沌系统的同步控制	吴庆庆,李 涛(228)
摩托车液压减震器阻尼特性仿真与性能分析	单春贤,刘西文,刘爱红(233)
软件体系结构级维护时间预测	刘 丽,朱小冬,叶 飞,王毅刚(238)
混合光照视觉干扰下特征提取方法仿真	孙明昊,顾亚平,张 俊(242)
EAST 中高精度长时间积分器系统的研究	刘冬梅,万宝年,何怡刚,沈 飘(246)

仿真方法与算法

耦合多项式基的径向点插值无网格方法	贾 延,康亚明(251)
贪婪算法重构信号性能研究	季秀霞,卞晓晓(255)
微带结构索莫非积分的快速精确计算	郑文泉,万国宾,秦 涛,赵雨辰(260)
优化决策树改进挖掘算法仿真	梁凤兰(264)
伪相关反馈的文本情感分类方法	卢 玲,杨 武,唐继强(268)
点云边界提取及三角网格生成的集成算法研究	詹 曦,张建生(272)

仿真网络化

基于能量优先的无线传感器网络多跳分簇算法	李长庚,阳瑞琦,黄玉兰(276)
基于节点兴趣的 P2P 网络搜索策略	张国超,卡米力·木依丁(281)
P2P 网络快速通信最优节点选择改进方法仿真	李洪亮,王 岩(285)
基于流量倾斜分类的网络调度算法仿真	刘 岩(289)
基于混沌最优博弈的网络任务调度算法仿真	陈 艇(293)
基于移动感知服务的植入城市计算研究	李拴保,祁慧敏,傅建明(297)

仿真智能化

基于支持向量机的混沌时序局域预测	高俊杰,王 豪,徐文艳(303)
主动式海洋钻井升沉补偿绞车设计与仿真研究	黄鲁蒙,张彦廷,张 磊,齐明侠(307)
鲸鱼二进制粒子群优化算法研究	孟 非,李金金,解志斌(312)
改进的蚁群遗传算法求解旅行商问题	于莹莹,陈 燕,李桃迎(317)
基于引导进化的组织进化算法	杨艳霞(321)
基于 ABC 优化算法的神经网络水溶解氧预测	苏彩红,向 娜,林梅金(325)
自适应权重粒子群优化的粒子滤波算法	刘 峰,韩艳丽,王 锋(330)
基于优化结构模型的指令最高优先级设定方法	于洪波,杨 静,王广州(334)
一种基于多种群的退火 DNA 遗传算法	周松儒,归伟夏(338)
基于支持向量机的肛肠病症识别算法研究	曾丽娟,张 华,彭洪云,彭向东(343)
直接模型参考自适应增稳系统的仿真研究	陈智轩,卢子广,胡立坤(347)
基于回溯法的 Dijkstra 算法改进及仿真	王防修,周 康(352)
多 AUV 编队分布式仿真系统设计与实现	翟楠楠,杨惠珍,郝莉莉,赵冬磊(356)
基于泛化理论的集成神经网络优化算法	秦立龙,余 奇,王振宇(361)
指尖平衡倒立棒的无模型预测控制方法分析	薛 鹏,陈素霞(365)
基于行为规划的多机器鱼编队策略的研究	安永跃,李淑琴(369)
双电机变频调速系统设计与仿真	陈 冲,胡国文(374)
三相异步电机节能控制技术的仿真研究	兰明勇,冯春辉,马 玉,徐 帅(379)
基于改进 CURE 算法的微博热点话题发现	杨长春,周 猛,叶施仁,徐小松(383)
基于模拟退火优化的磁共振图像重建优化仿真	高志宇,孙新娟(388)
云环境下计算资源调度策略与仿真研究	张彬桥(392)
基于图像的老年人摔倒行为挖掘方法仿真分析	张秋生(396)
多层分布式大型差异数据库优化入侵检测仿真	郑 义(400)
Bioloid 人形机器人倒立姿态控制及仿真研究	连晓峰,汪美坤,王炜伊(404)
关系型数据库中数值数据的密文检索模型研究	王小英,刘庆杰,陈丹琪,白 灵(409)

仿真虚拟化

基于场景几何特性的单视图建模技术研究	董兰芳,郑月平(412)
一种激光定位系统的数字样机技术研究	韩 刚,王 鹏,朱利民,杨 猛(416)
改进三维偏序分形树建模方法研究	张敬斋,张鹏洲,乔向东(421)
主动脉磁共振影像特征点匹配优化仿真分析	熊 平,万励之(426)
铁路抑尘系统虚拟仿真培训平台的研究与实现	刘茂朕,申国春(430)
高效的三维场景步行漫游算法研究	张丽娟,谢孔凯(435)

CONTENTS

Overview of Modeling and Simulation of Attack and Defense of Computer Network	LI Chun-liang, SI Guang-ya, et, al (1)
Radar Echo Modulation and Parameters Estimation for Complex Motion Targets	ZHAO Huin-nig, HE Si-san, et, al (6)
Study on New Jamming Technology of Modern Linear Frequency Modulation Radar	WU Yong-gang, GUO Shu-xu, et, al (11)
Numerical Simulation of Influence of Rapid Initiation of Plasma Jet on Pulse Detonation Engine	LIN Ling, WENG Chun-sheng (15)
Equipment Circuit Fault Simulation in Virtual Maintenance	RAN Yue-long, YAN Ying-min, et, al (20)
Study on Influence Factors on Recoilless Porous Structures with Laval Nozzles	XIAN Dong-peng, LIAO Zhen-qiang, et, al (24)
Research on Decision of Application of Airborne Chaff Centroid Jamming	YANG Zhe, LI Shu-lin, et, al (28)
Modeling and Simulation Platform Design and Research of Middle and Miniature Unmanned Aerial Vehicle	YUN Chao, LI Xiao-min, et, al (32)
Research on Satellite Positioning Error Compensation Method Based on Cloud Computing	LIU Zhen, WANG Yi, et, al (36)
Modeling and Attitude Control Simulation for Four-rotor Aircraft in Hover	CHEN Hang-ke, ZHANG Dong-sheng, et, al (41)
Semi-Coherent Integration Algorithm in Bei Dou Navigation Receive	LIN Xiao-long, HE Wen-tao, et, al (46)
Orbit Transfer Optimization Design for Spacecraft of Electric Propulsion	HAN Wei-hua, YANG Xin, et, al (50)
Institutions Simulation and Optimization Design of New Integrated Nitrogen Ejection System	ZHEN Jian-bin, XU Cheng, et, al (54)
Design and Simulation of SINS Trajectory Generator	ZHAI Kun-peng, HE Wen-tao, et, al (58)
Power System Short-Term Load Forecasting Based on Support Vector Regression	QIU Cun-yong, XIAO Jian (62)
Research on Offshore Downhole Hydrocyclone Based on Numerical Simulation	ZHANG Xiao-lin, DONG Xiang-wei, et, al (66)
Simulation Model of PV array Based on Two-Diode Model	XU Peng, HOU Jin-ming, et, al (71)
Application of Multi-Agent Technology in Intelligent Voltage Optimal Control	ZHEN Wei, WANG Lin-xin, et, al (76)
Single Neuron PID Control Based on Expert Rules for Main Steam Temperature Control System	SHI Ai-ping, SHI Jian, et, al (80)
Fuzzy Sliding-Mode Variable Structure Control of Hydro-Turbine Governing System	LI Qian-yong, HE Xiao-qiong, et, al (84)
Multiobjective Predictive Control for Boiler Combustion Optimization	ZHOU Xia (89)
Short-Term Load Forecasting Based on Neural Network Optimized	WU Gui-feng, WANG Xuan, et, al (95)
Design and Implementation of Monitoring System in B/S Mode Base on WebSocket Technology and SVG Technology	ZHANG Yue, YANG Yong-chao, et, al (100)
Application Research on Distributed Control System Database	ZHANG Qiu-shi, TONG Wei-guo, et, al (104)
Modeling and Research on Bed Temperature of Circulating Fluidized Bed Boiler	YANG Yong-chao, SUN Hai-rong, et, al (108)
Design of Air-Cooled Island Temperature Monitoring System for 300MW Unit	JIN Xiu-Zhang, XU Tie, et, al (112)
Preliminary Solutions Design of Distributed Biomass CCHP System	LI Da-zhong, WANG Kun-peng (115)
Research on Clamping Force Control in CVT Based on Slip Ratio	ZHANG Yong, ZHOU Yun-shan, et, al (120)
Study on Hole Flow Characteristics in GDI Injector of Automobile Engine	ZHU Xi, ZHANG Zhen-dong, et, al (125)
State Estimation of Vehicle Based on Information Fusion	WANG Jian-feng, LI Ping (131)
Studies on Assessment Method of Cumulative Damage for Airborne Vehicle under Impact	LI Jian-yang, WANG Hong-yan, et, al (137)
Fast Algorithm for Vehicle License Plate Location Based on Left-up Edge-point Detection	WANG Jian-shu, FAN Yang-yu, et, al (143)
State of Charge Estimation Calibration Based on Ampere-Hour Method	BAO Hui, YU Yang (148)
Study on Motor Fault Tolerance Control Strategy of Distributed Driving Electric Vehicle	LIU Xin-lei, HE Hong-wen, et, al (152)
Traffic Flow Forecasting Based on Multiscale Wavelet Support Vector Machine	MAN Rui-jun, LIANG Xue-chun (156)
Research on Control Strategy of Regenerative Braking for Electric Vehicle	ZHAI Zhi-qiang, ZHAO Guo-zhu, et, al (160)
Research on Control Algorithm of Path Following for Steer-By-Wire Vehicle	YAO Jiang-yun, QI Bao-qian, et, al (164)
Study of Coal Recognition Algorithm Based on CENTRIST	GUO Fu-rong, SHEN Yan-chun (169)
Chaotic Composite Sequences in DS System and Its Performance Analysis	DU Xiu-li, ZHEN Xu-liang, et, al (173)
Non-Coherent Detection of Satellite-Based AIS Signal	FANG Ting, MA She-xiang, et, al (177)
Cooperative Communication Process Optimization Simulation Analysis	ZHAO Zhe, ZHANG Zhi-yan (182)
Fixed-Point Algorithm for Blind Signal Extraction Based on Time Structure	ZHANG Shou-cheng, ZHANG Yu-jie, et, al (186)
Study on Dual-Frequency Behavior of Stacked Circularly Polarized Microstrip Antenna	ZHANG Min, ZHANG Qi, et, al (190)
High-speed Mobile Node Dislocation Network Communication Optimization Method Research	ZHANG Wei-ming (194)
Remote Transmission Optimization Method Research of Fire Signals in Buildings	YU Cheng-lin, WANG Su-li (198)
Simulation of Shielding Attenuation Optimization Method in Mobile Network Communication	ZHENG Qiang, CAO Jian-wei (202)
Design and implementation of Video Conference Server Based on DM8168	CHEN Ling, LI Hao-ran, et, al (206)
The Research of Three-Dimensional Models Streaming Transmission Improved Compression Algorithm	REN Hui-ling, SHEN Yan-chun (209)
Simulation of Resale Housing Price Information Transmission	ZHANG Hong, ZHANG Yang (214)
Adaptive Spatial Domain Regularization Restoration of Aero Degraded Image	SUN Li-hui, LI Jun-shan (218)
Research on Dynamic Response Characteristics of High-Speed Solenoid Valve	LI Chun-qing, JIANG Feng, et, al (224)

Synchronization of Chaotic System with Constant Lyapunov Exponent Spectrum	WU Qing-qing, LI Tao (228)
Damping Force Characteristics Simulation and Performance Analysis of Motorcycle Shock Absorber	SHAN Chun-xian, LIU Xi-wen, et, al (233)
Prediction of Maintenance Time at Software Architecture Level	LIU-li, ZHU Xiao-dong, et, al (238)
Mixed Lighting Simulation under Disturbance of Visual Feature Extraction Method	SUN Ming-hao, GU Ya-ping, et, al (242)
The Design of High-Accuracy Long Time Integrator System for EAST	LIU Dong-mei, WAN Bao-nina, et, al (246)
Meshless Radial Point Interpolation Method with Polynomial Basis	JIA Yan, KANG Ya-ming (251)
Study on Performance of Greedy Algorithms for Signal Reconstruction	JI Xiu-xia, BIAN Xiao-xiao (255)
Efficient and Accurate Analysis of Sommerfeld Integral for Microstrip Structure	ZHENG Wen-quan, WAN Guo-bin, et, al (260)
Simulation of Data Mining Algorithm Based on Optimal Decision Tree	LIANG Feng-lan (264)
Method of Text Sentiment Classification Based on Pseudo Relevance Feedback	LU Ling, YANG Wu, et, al (268)
Research on Algorithm of Integrating Boundary Extraction and Triangle Mesh Generation of Point Cloud	ZHAN Xi, ZHANG Jian-sheng (272)
Multihops Clustering Algorithm Based on Energy Optimization in WSN	LI Chang-geng, YANG Rui-qi, et, al (276)
P2P Network Search Strategy Based on Node of Interest	ZHANG Guo-chao, KAMIL · Moydi (281)
Simulation of Improved Optimal Node Selection Method for P2P Network Fast Communication	LI Hong-liang, WANG Yan (285)
Simulation of Network Scheduling Algorithm Based on Inclined Classification of Network Traffic Flow	LIU Yan (289)
Simulation of Network Task Scheduling Algorithm Based on Chaos Optimal Game	CHEN Ting (293)
Study on Embedded Urban Computing Based on Mobile Sensing Service	LI Shuan-bao, QI Hui-min, et, al (297)
Chaotic Time Series Local Prediction Based On SVM	GAO Jun-jie, WANG Hao, et, al (303)
Design and Simulation of Offshore Drilling Active Heave Compensation Drawworks	HUANG Lu-meng, ZHANG Yan-ting, et, al (307)
Study on Catfish Binary Particle Swarm Optimization	MENG Fei, LI Jin-jin, et, al (312)
Improved Ant Colony-Genetic Algorithm for Solving TSP	YU Ying-ying, CHEN Yan, et, al (317)
Organization Evolution Algorithm Based on Directed Evolution	YANG Yan-xia (321)
Dissolved Oxygen Prediction Based on Artificial Bee Colony Optimization Algorithm and BP Neural Network	SU Cai-hong, XIANG Na, et, al (325)
Particle Swarm Optimization Particle Filtering Algorithm Based on Adaptive Weight	LIU Feng, HAN Yan-li, et, al (330)
Instruction Highest Priority Setting Method Based on Optimization of the Structure Model	YU Hong-bo, YANG Jing, et, al (334)
Multi-Population Simulated Annealing DNA Genetic Algorithm	ZHOU Song-ru, GUI Wei-xia (338)
Study on Recognition of Anal-Intestinal Diseases Based on Support Vector Machine	ZENG Li-juan, ZHANG Hua, et, al (343)
Simulation Research on Direct Model Reference Adaptive Stability Augmentation System	CHEN Zhi-xuan, LU Zi-guang, et, al (347)
Improvement and Simulation of Dijkstra Algorithm Based on Backtracking Algorithm	WANG Fang-xiu, ZHOU Kang (352)
Design and Implementation for Multi-AUV Formation Distributed Simulation System	ZHAI Nan-nan, YANG Hui-zhen, et, al (356)
Modified Algorithm of Neural Network Ensemble Based on Generalization Theory	QIN Li-long, YU Qi, et, al (361)
Analysis on Model Free Predictive Control for Stick Balancing on Fingertip	XUE Peng, CHEN Su-xia (365)
Study of Multiple Robotic Fishes Formation Strategy Based on Behavior Planning Method	AN Yong-yue, LI Shu-qin (369)
Design and Simulation of Dual-Motor Variable Frequency Speed-regulating System	CHEN Chong, HU Guo-wen (374)
Simulation Research on Energy-Saving Control of Three-Phase Asynchronous Motor	LAN Ming-yong, FENG Chun-hui, et, al (379)
An Improved Hot Topic Detection Method for Microblog Based On CURE Algorithm	YANG Chang-chun, ZHOU Meng, et, al (383)
Simulation on Optimization of Magnetic Resonance Image Reconstruction Based on Simulated Annealing Optimal Algorithm	GAO Zhi-yu, SUN Xin-juan (388)
Cloud Computing Resource Scheduling Strategy Based on Catfish Particle Swarm Optimization Algorithm	ZHANG Bin-qiao (392)
Simulation Analysis of Elderly Fall Behavior Mining Method Based on Image	ZHANG Qiu-sheng (396)
Optimized Intrusion Detection Simulation on Multi-tier Distributed and Large Differences Database	ZHENG Yi (400)
Development of Inverted Posture Control and Simulation for A Bioloid Humanoid Robot	LIAN Xiao-feng, WANG Mei-kun, et, al (404)
Numeric Data in a Relational Database of the Ciphertext Retrieval Model Research	WANG Xiao-ying, LIU Qing-jie, et, al (409)
Research on Modeling Technology Based on Geometric Characteristics of Scene From Single Image	DONG Lan-fang, ZHENG Yue-ping (412)
Research on Digital Prototyping Technology of Laser Position System	HAN Gang, WANG Peng, et, al (416)
Research on Improve 3d Partial Order Fractal Tree Modeling Method	ZHANG Jing-zhai, ZHANG Peng-zhou, et, al (421)
Optimization Simulation Analysis of Aortic Magnetic Resonance Image Feature Points Matching	XIONG Ping, WAN Li-zhi (426)
Research and Implementation of Virtual Simulation Training Platform for Dust Suppression System of Railway	LIU Mao-zhen, SHEN Yan-chun (430)
The 3D Scene Roaming ALgorithm for Efficient Walking	ZHANG Li-juan, XIE Kong-kai (435)