

目次

军事领域仿真

- 基于最速跟踪微分器的电罗经直航向鲁棒控制 夏卫星,杨晓东(1)
- 海战场环境仿真系统的三维建模与实时仿真 龚立,刘忠,刘高峰(5)

航空航天领域仿真

- 基于DRNN的非线性模型预测控制研究 李军,张宇,王纪森(9)
- 基于视线观测的几何定位研究与仿真分析 龙汉,李贞杰(14)
- 超机动飞机非线性建模仿真与操纵特性分析 谢蓉,王新民,李俨(18)
- 航天器飞行及测控过程可视化系统设计与实现 程委,李兵,吴增强(22)
- 飞机偏心拦阻过程动力学分析与仿真 于立明,韩庆,李启明(28)
- 改进的灰色预测模型在导弹中的应用 李小力,李言俊,张科(33)
- 固体火箭发动机点火过程力学响应数值仿真 邓斌,杨欣毅,李冬,许俊松(37)
- 基于粒子群优化算法的无人机航迹规划 方胜良,余莉,汪亚夫(41)
- 基于灰色群体决策的对地多目标攻击研究 鲁华,周德云(44)
- 多小波在振动信号降噪中的应用 马建仓,孟凡路(48)
- 临近空间飞行器对地观测调度方法研究 祝江汉,李建军,马满好(52)
- 星载GPS低轨卫星定轨算法仿真研究 吴志华,丁杨斌,申功勋(56)

建模与验模

- 网格模型的三角形折叠简化方法研究 邵茜,杨靖宇(61)
- 流行病在空间分布人群中的传播模型 张玉,李亦芳,尹腾飞(65)

仿真方法与算法

- 密集杂波环境下基于KHM的多目标数据关联 刘陕军(69)
- 粒子滤波器SLAM算法研究 安婷婷,肖南峰(73)
- 稳健特征子空间波束形成算法及其性能分析 杨洁(78)
- RTX技术在半实物仿真中的应用及开发 孙继红(83)
- 随机线性重复过程的鲁棒 H_∞ 模型降阶 佟亮,齐迹,李艳辉(87)

网络与互连技术

- 几种机器学习方法在IDS中的性能比较 汪世义,陶亮,王华彬(92)
- 一种基于谱熵的自同步音频水印算法 韩颖铮,陆以勤(95)
- 传感器网络中基于能耗均衡的节点优化部署 袁辉勇,阙清贤,羊四清(100)
- 基于SEM的网络蠕虫传播模型研究 陈红,聂晓峰,荆继武,王跃武(103)
- MIMO多载波系统中的混合多用户检测器 周德祥,孙宜贵,谭玉波(107)
- 基于遗传算法支持向量机的网络入侵预测 谢志强(110)
- 一种无线传感网络中的时空事件检测方法 郑志平,胡圣波,舒恒(114)

人工智能与专家系统

- 一种模糊解耦控制系统的设计与仿真研究 张玲,张文苑,郑恩让(118)
- 基于混合粒子群优化的海底地形辅助导航算法 袁赣南,谭佳琳,尹伟伟(122)
- 单相逆变系统建模与控制仿真研究 易宏,代冀阳,伍家驹(127)
- 基于视觉传感器SLAM问题的算法构建 李久胜,章园媛(132)
- 柔性遥操作机器人系统的滑模变结构控制 王春景,曾庆军(137)
- 基于神经网络的睡眠分期处理算法研究 张泾周,周钊,滕炯华,苗治平(141)
- 机器人轨迹跟踪的自适应模糊神经网络控制 弓洪玮,郑维(145)
- 基于改进遗传算法的SVM参数优化研究 马元良,裴生雷(150)
- 一种基于信息粒度的信息检索优化方法 郭俊荣,杨捧,王紫薇(153)
- 基于集成神经网络的电机故障诊断 曾秀丽,常巧霞,王福斌,于子旺(157)
- 关于优化人民币汇率预测仿真研究 刘洋(161)
- 基于改进的K-means算法的文本聚类仿真系统 潘大胜(165)
- 电路故障个性化诊断仿真研究 张敬平,王立新(168)

两轴数控转台的控制算法研究	郝 婕,张文祥,凌明清(171)
基于神经网络组合模型的软件可靠性评估研究	王高祖,李伟华,徐艳玲(176)

优化仿真

改进的粒子群算法在非线方程求根中的应用	张安玲,刘雪英(181)
基于改进反序-杂交算子的免疫克隆选择算法	王玉亭,孙 剑,李俊青,潘全科(184)
基于 MQ 径向基序贯近似建模的联合优化方法	魏月兴,许 林,陈小前(189)
一种改进蚁群算法组合优化问题的研究	孙泽宇,魏 巍(194)
一种基于基因库求解 TSP 的单亲遗传算法	张建萍,刘希玉(198)
基于球面杂交的自适应动态克隆选择算法	成新文,李 琦(201)
支持向量机算法在多目标优化中的仿真应用	龚乾春(205)
基于改进遗传算法的波束形成方法	周宇鹏,张争气(208)

可视化仿真技术

一种新的遥感图像海岸线检测方法	李传龙,李 颖,马 龙(212)
基于监督的局部保存投影的人脸识别	任静文,赵 旭,陈雪梅(215)
基于混合方法的人脸表情识别研究	李 斐,陈亚军(218)
迭代函数系统 IFS 码的获取方法及实现	何 瑾,张国峰,戴树岭(222)
基于 MT 方法的雷达电磁波面可视化实现	王小龙,刘忠义,刘 强(227)
基于 GPU 的小波变换	周 侃,阎文丽,甘 斌,郝佳新(231)
ICP 算法在 3D 点云配准中的应用研究	杨现辉,王惠南(235)
基于蒙特卡罗仿真的图像预处理方法研究	时洪光,张凤生,郑春兰(239)
基于控制点的 SAR 图像亚像素自动配准	易成龙,王正明,郭良益(243)
改进的小波域自适应阈值煤尘图像去噪	张 伟(247)
基于时空熵与标签技术的运动目标检测算法	金章赞,肖 刚,陈久军,陈 勇(250)
一种有效的快速指纹预处理算法与仿真	霍 健,段哲民,马 裕,张晓鹏(255)
自适应阈值法在掌纹图像预处理中的应用	钱 鹰,李 娟(259)
基于 CMAC 神经网络的人脸表情识别	叶芳芳,许 力(262)
基于多层次并行算法的共成像点道集抽取	陈 辉,孙雷鸣,李录明,罗省贤(266)
基于区域伪 Zernike 矩的商标图像检索	陈 平,李 垒,任越美(270)

能源领域仿真

无差拍电流控制的三相功率因数校正研究	黄西平,孙 强,陈桂涛,张晓敏(274)
一种改进的遗传算法在无功优化中的应用	肖 力(278)
支持向量机在电力负荷预测中的应用研究	蒋 喆(282)

交通体系与工具仿真

机车车体非正面碰撞吸能装置仿真研究	韩增盛,李新东(286)
悬架与助力转向系统集成控制建模与仿真	周 兵,赵保华,余群明,成 钦(290)
一种近似推理的地图匹配算法	王建钊,喻熙锴(295)
基于 LQG 的制动器机电混合模拟系统仿真	范海菊,张会芝,冯乃勤(299)

制造业仿真

电磁齿轮控制系统建模及其仿真	鄯吉多,张大斌(303)
神经网络在工业厂房造价估算中的应用研究	潘 华,乐 云,李永奎,郁伟峰(307)

社会科学领域仿真

规则引擎在离散事件仿真平台中的应用	罗钦扬,杜 斌,朱 俊,秘慧杰(311)
-------------------------	----------------------

仿真应用研究

波导缝隙全向天线设计与仿真	郑 琨,王英民,曲少春(316)
风对阵列定向精度影响的数值仿真研究	胡利萍,李宝清,刘海涛(320)
不同轴截面薄壁筒在轴向冲击下吸能特性研究	孟 卓,孙 秦(325)
振动信号预处理方法研究及其 MATLAB 实现	肖立波,任建亭,杨海峰(330)
基于小波变换的拉曼光谱仿真分析	王京港,程明霄,林锦国,阎 宇(334)
微波低通滤波器电路设计	郭湘荣,武岳山(338)
一种自适应稳健波束形成器的仿真研究	杨 骏,龙 飞,王 斌(342)
基于观测器和前馈的液压伺服抗扰研究与仿真	赵亚楠,安洪瑞,杜宏旺,杜 娟(346)
矢量阵一种简单的相位误差校正方法	刘 云,金贝利(351)
基于小波变换的鲁棒性语音特征提取新方法	张君昌,李艳艳(355)
天线在近场测量中的卷积外推算法研究	张麟兮,鲁新建,李南京(359)
数字心率计的 FPGA 设计与实现	付 扬,李 静(363)

CONTENTS

Robust Control in Linear Course of Electromagnetic Controlled Gyrocompass Base on Steepest Tracking - differentiator	XIA Wei - xing, YANG Xiao - dong (1)
3D Modeling and Real Time Simulation of Environment Simulation System of Sea Battlefield ...	GONG Li, LIU Zhong, et, al (5)
Research of Nonlinear Model Predictive Control Based on DRNN	LI Jun, ZHANG Yu, et, al (9)
Study and Simulation Analysis of Geometry Localization Based on LOS Observation	LONG Han, LI Zhen - jie (14)
Nonlinear Modeling Simulation and Control Characteristic Analysis for a Super - maneuverable Aircraft	XIE Rong, WANG Xin - min, et, al (18)
Design and Implementation of Visual System of Spacecraft Motion and TT&C	CHENG Wei, LI Bing , et, al (22)
Dynamics Analysis and Simulation of Aircraft Off - Center Arrested Landing	YU Li - ming, Han Qing, et, al (28)
Improved Grey Forecasting Model of Fault Prediction in Missile Applications	LI Xiao - li, LI Yan - jun, et, al (33)
Numerical Simulation of Mechanical Response of Ignition Transient on Solid Rocket Motor	DENG Bin, YANG Xin - yi, et, al (37)
Route Planning for Unmanned Aerial Vehicles Based on Particle Swarm Optimization ...	FANG Sheng - liang, YU Li, et, al (41)
Research on Group Decision - making of Grey Analytical Method Based of Air - to - Ground Multi - target Combat	LU Hua, ZHOU De - yun (44)
Application of Multi - wavelet in Vibration Signal Denoising	MA Jian - cang, MENG Fan - lu (48)
Research on Earth Observing Scheduling for Near Space Aircrafts	ZHU Jiang - han, LI Jian - jun, et, al (52)
Simulation Study of Low - Earth - Orbit Determination Algorithm from Space - based GPS	WU Zhi - hua, DING Yang - bin, et, al (56)
Research of Mesh Simplification Algorithm Based on Triangle Collapse	SHAO Qian, YANG Jing - yu (61)
Epidemic Spreading in Spatially Distributed Populations	ZHANG Yu, LI Yi - fang, et, al (65)
Data Association for Multiple Targets Based on KHM in Dense Clutters	LIU Shan - jun (69)
Research on Particle Filter Based Simultaneous Localization and Mapping Algorithm	AN Ting - ting, XIAO Nan - feng (73)
Robust Eigen - subspace Beamforming Algorithms and Its Performance Analysis	YANG Jie (78)
Application and Development of Real - Time Extension Technology for Hardware in Loop Simulation	SUN Ji - hong (83)
Robust H_{∞} Model Reduction of Stochastic Repetitive Processes	TONG Liang, QI Ji , et, al (87)
Performance Comparison of Several Machine Learning Methods for Intrusion Detection ...	WANG Shi - yi, TAO Liang, et, al (92)
An Audio Watermark Algorithm with Self - Synchronization Based on Spectral Entropy	HAN Ying - zheng, LU Yi - qin (95)
Optimal Deployment of Nodes in Sensor Network Based on Energy Consumption Balance	YUAN Hui - yong, QUE Qing - xian, et, al (100)
Research on SEM - based Internet Worm Propagation Models	CHEN Hong, NIE Xiao - feng, et, al (103)
Blend Multiuser Detectors and Application in MIMO Multi - Carrier Systems	ZHOU De - xiang, SUN Yi - gui, et, al (107)
Support Vector Machines Based on Genetic Algorithm for Network Intrusion Prediction	XIE Zhi - qiang (110)
A Spatio - Temporal Event Detection Approach for Wireless Sensor Network	ZHENG Zhi - ping, HU Sheng - bo, et, al (114)
Design and Simulation Research of a Sort of Fuzzy Decoupling Control System ...	ZHANG Ling, ZHANG Wen - yuan, et, al (118)
Seabed Terrain Aided Navigation Algorithm Based on Hybrid Particle Swarm Optimization	YUAN Gan - nan, TAN Jia - lin, et, al (122)
Simulation Research on Modeling and Control of The Single - Phase Inverter System	YI Hong, DAI Ji - yang, et, al (127)
Algorithmic Construction for Bearing - only SLAM	LI Jiu - sheng, ZHANG Yuan - yuan (132)
Sliding - Mode Controller for a Flexible Tele - manipulation Robot System	WANG Chun - jing, ZENG Qing - jun (137)
A Sleep EEG Segmentation Process Based on Neural Network	ZHANG Jing - zhou, ZHOU Zhao, et, al (141)
Adaptive Fuzzy - neuro Control for Trajectory Tracking of Robot	GONG Hong - wei, ZHENG Wei (145)
Study on Parameters Optimization of Support Vector Machines Base on Improved Genetic Algorithm	MA Yuan - liang, PEI Sheng - lei (150)
Advanced Information Retrieval Based on Information Granularity	GUO Jun - rong, YANG Peng, et, al (153)
Motor Fault Diagnosis Based on Integration Neural Network	ZENG Xiu - li, CHANG Qiao - xia, et, al (157)
RMB Exchange Rate Prediction Based on SVM Optimized by Genetic Algorithm	LIU Yang (161)
Text Clustering Simulation System Based on Improved K - means Algorithm	PAN Da - sheng (165)
Simulation Circuit Fault Individual Diagnosis Based on SVM	ZHANG Jing - ping, WANG Li - xin (168)
Research on Control Algorithm Based on Two Axis Digital Control Turntable	HAO Jie, ZHANG Wen - xiang, et, al (171)
Research of Software Reliability Assessment Based on Neural Net Combination Model	WANG Gao - zu, LI Wei - hua, et, al (176)
Application of Improved Particle Swarm Optimization Algorithm for Finding Roots of Nonlinear Equation	

.....	ZHANG An - ling, LIU Xue - ying (181)
ICS Algorithm Based on Improved Inver - over Operator for TSP	WANG Yu - ting, SUN Jian, et, al (184)
A Multiquadric Radial Basis Function Sequential Modeling Based Combined Optimization	WEI Yue - xing, XU Lin, et, al (189)
A Study on Improvement of Ant Colony Algorithm Strategies Combinational Optimization	SUN Ze - yu, WEI Wei (194)
A Partheno Genetic Algorithm Based on Gene Pool for TSP	ZHANG Jian - ping, LIU Xi - yu (198)
Adaptive Dynamic Clone Selection Algorithm Based on Sphere Crossover	CHENG Xin - wen, LI Qi (201)
Applications of Support Vector Machine Optimization in Multi - objective Problems	GONG Qian - chun (205)
An Approach of Beamforming Based on Improved Genetic Algorithm	ZHOU Yu - peng, ZHANG Zheng - qi (208)
A New Method of Coastline Detection for Remote Sensing Image	LI Chuan - long, LI Ying, MA Long (212)
Supervised Locality Preserving Projection Based Face Recognition	REN Jing - wen, ZHAO Xu, et, al (215)
Facial Expression Recognition Research Based on Mixed Methods	LI Fei, CHEN Ya - jun (218)
Methods of Obtaining IFS Parameters and Its Realization Based on Iterated Function System	HE Jin, ZHANG Guo - feng, et, al (222)
Accomplishment of Visualizing Radar's Electromagnetic Wave Based on MT Method	WANG Xiao - long, LIU Zhong - yi, et, al (227)
Wavelet Analysis Based on GPU	ZHOU Kan, YAN Wen - li, et, al (231)
Application Research of ICP Algorithm in 3D Point Cloud Alignment	YANG Xian - hui, WANG Hui - nan (235)
Research on Method for Preprocessing Image Based on Monte Carlo Simulation	SHI Hong - guang, ZHANG Feng - sheng, et, al (239)
Automatic Sub - pixel Registration for SAR Image Based on Control Point	YI Cheng - long, WANG Zheng - ming, et, al (243)
Improved Adaptive Wavelet Thresholding for Coal Dust Image Denoising	ZHANG Wei (247)
A New Method of Motion Detection Based On Spatial Temporal Entropy and Label Technique	JIN Zhang - zan, XIAO Gang, et, al (250)
An Effective Fast Fingerprint Pre - processing Algorithm and Simulation	HUO Jian, DUAN Zhe - min, et, al (255)
Application of Adaptive Threshold in Palmprint Preprocessing	QIAN Ying, LI Juan (259)
Facial Expression Recognition Based on CMAC Neural Network	YE Fang - fang, XU Li (262)
Common Image Gathers Extraction Based on Multi - level Parallel Algorithm	CHEN Hui, SUN Lei - ming, et, al (266)
Trademark Image Retrieval Using Region Pseudo - Zernike Moments	CHEN Ping, LI Lei, et, al (270)
Research on Three - phase Power Factor Correction Based on Deadbeat Current Controller	HUANG Xi - ping, SUN Qiang, et, al (274)
Application of an Improved Genetic Algorithm in Reactive Power Optimization	XIAO Li (278)
Research on Power Load Forecasting Base on Support Vector Machines	JIANG Zhe (282)
Simulation of Energy - absorbing Component in Locomotive Car - body of Non Frontal Crash	HAN Zeng - sheng, LI Xi - dong (286)
Modeling and Simulation of Integrated Control for Suspension & EPS	ZHOU Bing, ZHAO Bao - hua, et, al (290)
A Map - matching Arithmetic of Approximate Reasoning	WANG Jian - zhao, YU Xi - kai (295)
LQG - based Simulation on Mechanical Inertia Mix Electric System of Brake	FAN Hai - ju, ZHANG Hui - zhi, et, al (299)
Modeling and Simulation of Control System on Electromagnetic Gear	YAN Ji - duo, ZHANG Da - bin, et, al (303)
Practical Application Study of Neural Network in Cost Estimation of Industrial Plants	PAN Hua, LE Yun, et, al (307)
A Rule Engine and Application on Platform for Discrete Event Simulation	LUO Qin - yang, DU Bin, et, al (311)
Design and Simulation of Omni directional Waveguide Slotted Antenna	ZHENG Kun, WANG Ying - min, et, al (316)
Numerical Research on Array's Accuracy on DOA Estimation in Windy Environment	HU Li - ping, LI Bao - qing, et, al (320)
Energy - Absorption Characteristics of Thin - Walled Tube with Different Axial - Section Shapes under Axial Impulsive Load	MENG Zhuo, SUN Qin (325)
Study on Vibration Signal Pre - processing Method Based on MATLAB	XIAO Li - bo, REN Jian - ting, et, al (330)
Simulation Analysis of Based on Wavelet Transform for Raman Spectra	WANG Jing - gang, CHENG Ming - xiao, et, al (334)
Design of Microwave Lowpass Filter Circuit	GUO Xiang - rong, WU Yue - shan (338)
Simulation Study on a Robust Adaptive Beamformer	YANG Jun, LONG Fei, et, al (342)
Research on Anti - disturbance and Simulation of Mechanical - hydraulic Servo Based on State Observer and Feedforward	ZHAO Ya - nan, AN Hong - rui, et, al (346)
A simple method for phase error correction in the vector hydrophone array	LIU Yun, JIN Bei - li (351)
A New Robust Speech Feature Extraction Method Based on Wavelet Transform	ZHANG Jun - chang, LI Yan - yan (355)
Study on Convolution Extrapolation Algorithm of Antenna In Near Field Measurement	ZHANG Lin - xi, LU Xin - jian, et, al (359)
FPGA Design and Implementation of Digital Heart - rate Meter	FU Yang, LI Jing (363)