

系统 工程 与 电子技术

张永军

第 39 卷 第 8 期
2017 年 8 月

目 次

万方数据

基于均匀圆阵时频干涉仪的 LFM 信号二维测向算法	
..... 崔开博, 陈 曦, 黄敬健, 袁乃昌	1669
基于遗传矩阵伴随求逆算法的抗干扰技术	
..... 王霖郁, 郭 昊, 项建弘, 戚连刚	1677
基于博弈论的多传感器交叉提示算法	
..... 庞 策, 黄树彩, 刘锦昌, 赵 炜	1684
基于加速度盲估计的隐身目标检测算法	
..... 王 卓, 郑学合, 常晓兰	1691
基于图像化多帧积累滤波的慢小目标探测方法	
..... 朱源才, 王 红, 曲智国	1697
基于 QMC 采样的 GMPHD 分布式融合方法	
..... 孔云波, 冯新喜, 许丁友	1702
· 传感器与信号处理 ·	
基于聚类字典学习和稀疏表示的 SAR 图像抑斑方法	
..... 刘春辉, 齐 越, 丁文锐	1709
高分辨星载 SAR 的方位维频率非线性变标成像算法	
..... 张 延, 郭 苹, 张林让, 唐世阳	1716
分布式相参雷达几何布置约束条件	刘兴华, 徐振海, 肖顺平
1723	
基于混沌序列的 MIMO 雷达互补相位编码波形设计	
..... 申 东, 李 楠, 李 强, 张华卫	1732
空间微动目标极化欺骗式干扰信号合成方法	
..... 黄 勇, 段 锐, 张 海, 颜光宇	1738
针对目标跟踪的分布式 MIMO 雷达资源分配算法	
..... 孙 扬, 郑娜娥, 李玉翔, 任修坤	1744

• 系统工程 •

一种新的军事概念建模方法	鞠儒生, 许 霄, 王 松, 杨 妹	1751
基于 DST-IFS 的空中目标敌我属性综合识别	徐 浩, 邢清华, 王 伟	1757
基于关键性的备件库存配置优化模型	蔡芝明, 金家善, 陈砚桥	1765
基于两级策略的器材立体仓库货位分配方法	靳 萌, 穆希辉, 罗偲语, 陈建华	1774
基于超网络模型武器装备体系抗毁性分析	王宏宇, 吴 纬, 魏艳艳	1782
定期保障策略下远航舰艇备件瞬时短缺数评估模型	王 睿, 谭凯家	1788

• 制导、导航与控制 •

基于多频模糊度解算的 BDS/GPS 中基线 AEKF RTK 算法	宋玉龙, 廉保旺, 唐成凯	1794
捷联惯导四面体冗余配置的双轴旋转调制方法	程建华, 牟宏杰, 孙湘钰, 陈岱岱	1801
超低干扰力矩微纳卫星姿控半物理仿真平台	刘延芳, 刘兴富, 齐乃明	1808
基于遗传算法的多星协同攻击轨道优化方法	刘 源, 李玉玲, 郝 勇, 赵 琳	1815
一类输入受限的不确定非线性系统自适应 Backstepping 变结构控制		
.....	李 飞, 胡剑波, 王坚浩, 汪 涛	1823

• 通信与网络 •

带有动态反馈的间断连接无线网络自适应异步节能机制	杨 鹏, 经尚琪, 杨 静, 刘 豆	1834
基于灰预测的 PTP 协议改进方法	陈 晔, 高小杰, 李胆胆, 左 颖, 洪 亮, 李建涛, 石 磊	1842
基于天线分组的携能中继的保密传输方案	雷维嘉, 杨小燕, 林秀珍	1849
面向多层卫星网络的信道资源管理方法	周 剑, 孙力娟, 韩 崇, 郭小海, 王 娟	1857
通信受限不确定 Delta 算子网络系统 H_{∞} 滤波	张端金, 高晓蓓	1864

• 软件、算法与仿真 •

基于过完备字典的缺失振动数据压缩感知重构算法	余 路, 曲建岭, 高 峰, 田沿平, 申江江	1871
能量修正和决策集约简的证据理论优化算法	陈迎春, 李 鸥, 孙 昱	1878
随机投影阵下的界约束总变分图像恢复算法	郝彬彬, 吴亚楠, 朱见广, 乔田田, 李 敏	1885

• 可靠性 •

威布尔分布随机右删失数据下客观贝叶斯评估的敏感性分析	沈安慰, 郭基联, 王卓健, 张庆立	1891
自适应建模相关向量机及其在电子系统状态预测中的应用	高明哲, 许爱强, 张 伟	1898

CONTENTS

Electronic Technology

2-D DOA estimation of LFM signals based on time-frequency interferometer and uniform circular array	1669
..... CUI Kaibo, CHEN Xi, HUANG Jingjian, YUAN Naichang	
Anti-jamming technology based on genetic matrix adjoint inversion algorithm	1677
..... WANG Linyu, GUO Hao, XIANG Jianhong, QI Liangang	
Multi-sensor cross cueing algorithm basing on the game theory	1684
..... PANG Ce, HUANG Shucaï, LIU Jinchang, ZHAO Wei	
Stealth target detection algorithm based on blind acceleration estimation	1691
..... WANG Zhuo, ZHENG Xuehe, CHANG Xiaolan	
Detection method for slow and small target image based on multi-frame accumulation filter	1697
..... ZHU Yuancai, WANG Hong, QU Zhiguo	
Distributed fusion of Gaussian mixture probability hypothesis density based on quasi-Monte Carlo sampling	1702
..... KONG Yunbo, FENG Xinxì, XU Dingyou	

Sensors and Signal Processing

SAR despeckling based on clustering dictionary learning and sparse representation	1709
..... LIU Chunhui, QI Yue, DING Wenrui	
Azimuth frequency domain nonlinear chirp scaling algorithm for high resolution spaceborne SAR	1716
..... ZHANG Yan, GUO Ping, ZHANG Linrang, TANG Shiyang	
Geometric arrangement constraints of distributed coherent aperture radar	1723
..... LIU Xinghua, XU Zhenhai, XIAO Shunping	
Complementary phase-coding waveform design based on chaotic sequences for MIMO radar	1732
..... SHEN Dong, LI Nan, LI Qiang, ZHANG Huawei	
Signal synthetic method of polarized deceptive jamming for spatial micro-motion targets	1738
..... HUANG Yong, DUAN Rui, ZHANG Hai, YAN Guangyu	
Distributed MIMO radar resource allocation approach for target tracking	1744
..... SUN Yang, ZHENG Nae, LI Yuxiang, REN Xiukun	

Systems Engineering

Novel military concept modeling strategy	1751
..... JU Rusheng, XU Xiao, WANG Song, YANG Mei	
Integrated air target identification of friend or foe based on DST-IFS	1757
..... XU Hao, XING Qinghua, WANG Wei	
Optimal inventory modeling of spare parts under the criticality	1765
..... CAI Zhiming, JIN Jiashan, CHEN Yanqiao	
Slot assignment method for maintenance material warehouse based on two levels policy	1774
..... 万方数据 JIN Meng, MU Xihui, LUO Siyu, CHEN Jianhua	

Weapon system-of-systems invulnerability analysis based on super network model	WANG Hongyu, WU wei, WEI Yanyan	1782
Instantaneous backorders probability evaluation model for expedition warship spare parts in periodic support strategy	WANG Rui, TAN Kaijia	1788
Guidance, Navigation and Control		
BDS/GPS AEKF RTK algorithm utilizing multi-frequency ambiguity resolution for medium baseline	SONG Yulong, LIAN Baowang, TANG Chengkai	1794
Dual-axis rotational modulation method based on SINS tetrahedron redundancy configuration	CHENG Jianhua, MOU Hongjie, SUN Xiangyu, CHEN Daidai	1801
Hardware-in-loop simulation platform with super-low disturbance torque for attitude control system of micro-and nano-satellites	LIU Yanfang, LIU Xingfu, QI Naiming	1808
Multi-satellite cooperative attacking path optimization method based on genetic algorithm	LIU Yuan, LI Yuling, HAO Yong, ZHAO Lin	1815
Adaptive Backstepping sliding mode control for a class of uncertain nonlinear systems with input constraints ...	LI Fei, HU Jianbo, WANG Jianhao, WANG Tao	1823
Communications and Networks		
Adaptive asynchronous energy-saving mechanism with dynamic feedback method for intermittent connectivity wireless network	YANG Peng, JING Shangqi, YANG Jing, LIU Dou	1834
Improved method of PTP protocol based on grey prediction	CHEN Wu, GAO Xiaojie, LI Dandan, ZUO Ying, HONG Liang, LI Jiantao, SHI Lei	1842
Secure transmission scheme based on SWIPT relay with antenna grouping	LEI Weijia, YANG Xiaoyan, LIN Xiuzhen	1849
Channel resources management strategy for multi-layer satellite network	ZHOU Jian, SUN Lijuan, HAN Chong, GUO Xiaohai, WANG Juan	1857
H_{∞} filtering for uncertain networked systems with limited communication using Delta operator	ZHANG Duanjin, GAO Xiaobei	1864
Software, Algorithm and Simulation		
Missing vibration data reconstruction using compressed sensing based on over-complete dictionary	YU Lu, QU Jianling, GAO Feng, TIAN Yanping, SHEN Jiangjiang	1871
Optimization algorithm for DS evidence theory based on energy modification and decision set reduction	CHEN Yingchun, LI Ou, SUN Yu	1878
Algorithm for bound constrained total variation image restoration from random projections	HAO Binbin, WU Yanan, ZHU Jianguang, QIAO Tiantian, LI Min	1885
Reliability		
Sensitivity analysis of objective Bayesian evaluation under random right censoring and Weibull distribution	SHEN Anwei, GUO Jilian, WANG Zhuojian, ZHANG Qingli	1891
Adaptive modeling relevance vector machine and its application in electronic system state prediction	GAO Mingzhe, XU Aiqiang, ZHANG Wei	1898