

第 37 卷 第 8 期 2020 年 8 月  
Vol. 37 No. 8 Aug. 2020

ISSN 1000-8152  
CODEN KLYYEB

# 控制理论与应用

Control Theory & Applications



万方数据

主办 华南理工大学  
中国科学院数学与系统科学研究院

# 控制理论与应用

第37卷 第8期 2020年8月

## 目次

### 论文与报告

- 隐蔽式攻击下的离散系统区间观测器设计 ..... 刘坤, 张淇瑞, 郭航, 刘涛, 夏元清 (1673)
- 基于分层式证据推理的信息融合故障诊断方法... 徐晓滨, 叶梓发, 徐晓健, 侯平智, 王琪冰, 茹晓英 (1681)
- 考虑误差补偿的柔性关节机械臂命令滤波反步控制 ..... 李鹏飞, 张银河, 张蕾, 王晓华, 王文杰 (1693)
- 基于二维系统的迭代学习事件触发鲁棒控制 ..... 余威, 卜旭辉, 梁嘉琪 (1701)
- 不确定通信拓扑下多智能体系统鲁棒一致性 ..... 陈阳舟, 黄小龙, 詹璟原 (1709)
- 系统直和博弈模型下的合作演化 ..... 李亚昆, 冯俊娥 (1717)
- 含弹簧阻尼缓冲机构空间机器人捕获卫星操作的避撞柔顺强化学习控制 ..... 朱安, 陈力 (1727)
- 基于强化学习的快速探索随机树特殊环境中路径重规划算法 ..... 邹启杰, 刘世慧, 张跃, 侯英鹂 (1737)
- 基于策略迭代算法的连续时间线性Markov跳变系统非零和微分反馈Nash控制  
..... 朱国政, 张茂光, 何舒平 (1749)
- 基于密度标准误差的局部保持投影故障检测策略 ..... 张成, 郭青秀, 冯立伟, 李元 (1757)
- 基于衰减因子和动态学习的改进樽海鞘群算法 ..... 陈雷, 蔺悦, 康志龙 (1766)
- 用PID控制近似线性自抗扰控制 ..... 崔文庆, 王雨桐, 谭文 (1781)
- 含模型不确定性的上三角非线性系统的全局镇定 ..... 查雯婷, 翟军勇, 梁莹玉 (1790)
- 有偏最小最大概率模型及在汽油属性预测中的应用 ..... 贺凯迅, 刘晶晶, 王小邦, 苏照阳 (1799)
- 分布式模糊离散事件系统的故障预测 ..... 谢仁可, 刘富春, 赵锐, 崔洪刚 (1808)
- 基于高阶干扰观测器的极点配置控制器及应用 ..... 王东委, 富月 (1815)
- 高炉燃烧料面合成孔径雷达双聚焦成像算法 ..... 陈相兵, 倪梓明, 陈先中, 侯庆文, 于晴 (1826)
- 时域感兴趣区域精确定位与膜电位多核调整的动态视觉传感器数据分类  
..... 黄庆坤, 陈云华, 张灵, 兰浩鑫 (1837)

### 短文

- 基于改进即时学习算法的锆/钼元素组分含量预测 ..... 陆荣秀, 饶运春, 杨辉, 朱建勇, 杨刚 (1846)
- 基于有限时间观测器的离散系统混沌同步 ..... 吴阳, 张建成 (1855)
- 基于模糊滑模控制器和两级滤波观测器的永磁同步电机无位置传感器混合控制  
..... 赵峰, 罗雯, 高锋阳, 余佳乐 (1865)

# CONTROL THEORY & APPLICATIONS

Vol. 37 No. 8 Aug. 2020

## CONTENTS

### Papers and Reports

- Interval observer design of discrete-time systems under stealthy attacks  
..... LIU Kun, ZHANG Qi-ruì, GUO Hang, LIU Tao, XIA Yuan-qing (1673)
- Information fusion-based fault diagnosis method via hierarchical evidence reasoning  
..... XU Xiao-bin, YE Zi-fa, XU Xiao-jian, HOU Ping-zhi, WANG Qi-bing, RU Xiao-ying (1681)
- Command-filtered backstepping control with error compensation for flexible joint manipulator  
..... LI Peng-fei, ZHANG Yin-he, ZHANG Lei, WANG Xiao-hua, WANG Wen-jie (1693)
- Iterative learning event triggering robust control based on 2-D systems ..... YU Wei, BU Xu-hui, LIANG Jia-qi (1701)
- Robust consensus of multi-agent systems with uncertain communication topology  
..... CHEN Yang-zhou, HUANG Xiao-long, ZHAN Jing-yuan (1709)
- Cooperative evolution under the direct sum game model ..... LI Ya-kun, FENG Jun-e (1717)
- Collision avoidance and compliance reinforcement learning control for space robot with spring-damper buffer device capturing satellite ..... ZHU An, CHEN Li (1727)
- Rapidly-exploring random tree algorithm for path re-planning based on reinforcement learning under the peculiar environment  
..... ZOU Qi-jie, LIU Shi-hui, ZHANG Yue, HOU Ying-li (1737)
- Policy iteration-based non-zero sum differential feedback Nash control for continuous-time Markov jump linear systems  
..... ZHU Guo-zheng, ZHANG Mao-guang, HE Shu-ping (1749)
- Fault detection strategy based on density standard error associated with locality preserving projections  
..... ZHANG Cheng, GUO Qing-xiu, FENG Li-wei, LI Yuan (1757)
- Improved salp swarm algorithm based on reduction factor and dynamic learning  
..... CHEN Lei, LIN Yue, KANG Zhi-long (1766)
- Approximation of linear active disturbance rejection control with PID control  
..... CUI Wen-qing, WANG Yu-tong, TAN Wen (1781)
- Global stabilization of upper-triangular nonlinear systems with model uncertainties  
..... ZHA Wen-ting, ZHAI Jun-yong, LIANG Ying-yu (1790)
- Biased minimax probability model and its application in prediction of gasoline properties  
..... HE Kai-xun, LIU Jing-jing, WANG Xiao-bang, SU Zhao-yang (1799)
- Fault prognosis of decentralized fuzzy discrete-event systems  
..... XIE Ren-ke, LIU Fu-chun, ZHAO Rui, CUI Hong-gang (1808)
- Pole assignment controller based on higher order disturbance observer and its application  
..... WANG Dong-wei, FU Yue (1815)
- Dual-focus imaging algorithm of synthetic aperture radar for burning blast furnace burden surface  
..... CHEN Xiang-bing, NI Zi-ming, CHEN Xian-zhong, HOU Qing-wen, YU Qing (1826)
- Dynamic vision sensors data classification based on precise temporal region of interest locating and multi-kernel membrane potential adjusting ..... HUANG Qing-kun, CHEN Yun-hua, ZHANG Ling, LAN Hao-xin (1837)

### Brief Papers

- Prediction of Pr/Nd component content based on improved just-in-time learning algorithm  
..... LU Rong-xiu, RAO Yun-chun, YANG Hui, ZHU Jian-yong, YANG Gang (1846)
- Finite time observer-based synchronization for discrete-time chaotic systems ..... WU Yang, ZHANG Jian-cheng (1855)
- Sensorless hybrid control for permanent magnet synchronous motor using fuzzy sliding mode controller and two-stage filter observer ..... ZHAO Feng, LUO Wen, GAO Feng-yang, YU Jia-le (1865)