运筹与控制团队

1. 团队简介

运筹与控制团队主要研究控制理论与控制工程，最优控制数值计算方法，最优化理论与算法、非线性分析，复杂网络性态、同步分析与控制，最优保险与最优投资，金融随机模型，管理与优化，机器学习核函数方法，离散事件系统，模糊数学等。

目前团队主要成员有 10 人，其中教授 2 人，副教授 3 人，讲师 5 人。主持省部级以上项目 20 多项，在《Journal of the Franklin Institute》、《Applied Mathematics Letters》、《IEEE Transactions on Systems, Man, and Cybernetics: Systems》、《IEEE/CAA Journal of Automatica Sinica》、《Neurocomputing》、《Information Sciences》、《Optimization》、《International Journal of Robust and Nonlinear Control》、《Asian Journal of Control》、《Journal of Complexity》、《数学学报》、《运筹学学报》等期刊上发表 SCI 期刊论文 50 多篇，授权发明专利 10 余件。

2. 团队负责人简介

陈学松，男，博士，教授，硕士生导师。主要从事应用数学与计算、控制理论及应用方面的研究工作。目前，已经在《Journal of the Franklin Institute》、《Applied Mathematics Letters》、《IEEE/CAA Journal of Automatica Sinica》、《Applied Mathematics and Computation》等期刊上发表 SCI 论文 10 多篇，授权发明专利 5 件，计算机软件著作权 10 件。2015-2016 年公派到美国南伊利诺伊大学访学一年。主持了中国博士后科学基金项目 1 项，广东省自然科学基金项目 2 项，广东省现代信息服务业发展专项 1 项，广州市科技计划项目 2 项，横向课题 1 项。作为主要成员参与了多项国家自然科学基金面上项目等。目前为中国高等教育学会教育数学专业委员会常务理事、中国工业与应用数学学会会员，中国自动化学会会员，IEEE Member。

杨理平，男，教授，作为主要成员参与了两项国家自然科学基金面上的研究，主持一项教育部人文社科规划基金，一项广东省自然科学基金与一项广州市科学研究专项项目；以独立作者或第一作者发表 SCI 收录论文 19 篇；此外，还在中文期刊《数学学报》，《应用数学学报》，《数学年刊》，《系统科学与数学》，《数学物理学报》发表论文多篇。

3. 团队主要成员

姓名	学位	专业技术职务	研究方向
陈学松	博士	教授	控制理论与控制工程、计算数学
杨理平	硕士	教授	最优化理论与算法、非线性分析
张丽丽	博士	副教授	复杂网络性态、同步分析与控制
谷爱玲	博士	副教授	最优保险与最优投资
孙琳	硕士	副教授	金融随机模型
陈鹤峰	博士	讲师	离散事件系统

涂钰青	博士	讲师	形式化方法研究
张良	博士	讲师	企业管理、大数据应用
肖存涛	硕士	讲师	模糊离散事件系统
林荣荣	博士	讲师	机器学习核函数方法

4. 团队承担的科研项目

项目名称	项目类别	执行时间	主持人
压电陶瓷执行器的动态模型辨识与控制方法研究	中国博士后科学基金项目	2013-2014	陈学松
压电陶瓷执行器的迟滞非线性建模与控制方法研究	广东省自然科学基金	2015-2018	陈学松
压电陶瓷驱动器的动态模型辨识与自适应控制方法研究	广东省自然科学基金	2018-2021	陈学松
面向工业与电器检测领域的综合业务平台	广东省现代信息服务业发展专项	2011-2014	陈学松
多智能机器人系统的研究及其科普教育活动	广州市科技计划项目	2014-2016	陈学松
智能材料微驱动器的迟滞补偿控制原理和方法研究	广州市科技计划项目	2020-2023	陈学松
突发事件下供应链智能应急决策支持系统研究	教育部人文社科规划项目	2014-2017	杨理平
基于投影动态系统理论的弹性供应链建模及其应用	广东省自然科学基金	2015-2018	杨理平
基于情景演化的弹性供应链动态优化模型及其应用研究	广州市科技计划项目	2017-2020	杨理平
具有关键节点的复杂动态相似网络聚类广义同步控制研究	国家自然科学基金青年项目	2017-2019	张丽丽
具有簇头的多簇群复杂动态网络簇同步控制	广东省自然科学基金	2016-2019	张丽丽
复杂动态网络节点群体行为与拓扑结构相互作用机理分析与控制	广东省自然科学基金	2019-2022	张丽丽
模糊厌恶下保险公司的最优再保险、投资和分红问题的研究	国家自然科学基金青年项目	2016-2018	谷爱玲
风险相依模型下保险公司的最优投资、再保险和分红等问题的研究	广东省自然科学基金	2014-2017	谷爱玲
分形环境下可转换债券的定价模型与参数估计	广东省自然科学基金	2013-2015	孙琳
数据驱动下已实现波动率的建模及其预测研究	教育部人文社科规划项目	2020-2023	孙琳
再生核巴拿赫空间中的核函数方法	国家自然科学基金青年项目	2020-2022	林荣荣
再生核巴拿赫空间中的稀疏学习算法	中央高校基本科研业务费	2018-2020	林荣荣
深度核神经网络的前沿理论及其应用	广州市科技计划项目	2022-2024	林荣荣

5. 代表性研究成果

5.1 代表性学术论文

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5.2 代表性专利

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