



所属学院 信息科学与工程学院

学科领域 控制科学与工程

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个人简介

工学博士，副教授、硕士生导师、德国洪堡学者、上海市浦江学者。分别于 2010 年和 2015 年获华东理工大学工学学士和工学博士学位，之后先后赴加拿大 University of Alberta, 德国 University of Duisburg-Essen, 香港 The Hong Kong University of Science and Technology, 以及日本 Kyoto University 从事研究工作，研究方向包括机器学习方法与工业应用、复杂工业过程智能建模与监测、多源信息融合过程运行优化、工业大数据驱动过程故障诊断等，主持国家自然科学基金青年项目、面上项目、上海市浦江人才计划项目等，参与多项企业横向课题。以第一作者或通讯作者在 IEEE TIE、IEEE TCST、IEEE TII, AIChE J 以及 J Process Control 等重要学术刊物上发表 SCI 收录论文 40 余篇。

研究方向

机器学习方法与工业应用、复杂工业过程智能建模与监测、多源信息融合过程运行优化、工业大数据驱动过程故障诊断

研究成果及主要发表文章

1. Qingchao Jiang, Xuefeng Yan*, Biao Huang, Review and Perspectives of Data-Driven Distributed Monitoring for Industrial Plant-Wide Processes, Industrial & Engineering Chemistry Research, 2019, 58(29): 12899-12912.
2. Qingchao Jiang, Xuefeng Yan*, Hui Yi, and Furong Gao, Data-Driven Batch-End Quality Modeling and Monitoring Based on Optimized Sparse Partial Least Squares, IEEE Transactions on Industrial Electronics, Online DOI: 10.1109/TIE.2019.2922941.
3. Qingchao Jiang, Xuefeng Yan*, Multimode Process Monitoring Using Variational Bayesian Inference and Canonical Correlation Analysis, IEEE Transactions on Automation Science and Engineering, 2019, DOI: 10.1109/TASE.2019.2897477.
4. Qingchao Jiang, Xuefeng Yan*, Learning Deep Correlated Representations for Nonlinear Process Monitoring, IEEE Transactions on Industrial Informatics, 2018, Online DOI: 10.1109/TII.2018.2886048.
5. Qingchao Jiang, Xuefeng Yan*, Locally Weighted Canonical Correlation Analysis for Nonlinear Process Monitoring, Industrial & Engineering Chemistry Research, 2018, 57 (41): 13783-13792.
6. Qingchao Jiang, Xuefeng Yan*, and Biao Huang*, Neighborhood Variational Bayesian Multivariate Analysis for Distributed Process Monitoring with Missing Data, IEEE Transactions on Control Systems Technology, Online DOI: 10.1109/TCST.2018.2870570.
7. Qingchao Jiang, Xuefeng Yan*, Parallel PCA-KPCA for Nonlinear Process Monitoring, Control Engineering Practice, vol. 80, 17-25, 2018.
8. Qingchao Jiang*, Furong Gao*, Xuefeng Yan, and Hui Yi. Multiobjective Two-Dimensional CCA-Based Monitoring for Successive Batch Processes with Industrial Injection Molding Application. IEEE Transactions on Industrial Electronics, 2018.8, 66(5): 3825~2834.
9. Qingchao Jiang, Furong Gao, Hui Yi, and Xuefeng Yan. Multivariate Statistical Monitoring of Key Operation Units of Batch Processes Based on Time-Slice CCA. IEEE Transactions on Control Systems Technology, 2019, 27(3) 1368-1375.
10. Qingchao Jiang, Steven X. Ding, Yang Wang, and Xuefeng Yan. Data-driven Distributed Local Fault Detection for Large-Scale Processes Based on the GA-Regularized Canonical Correlation Analysis. IEEE Transactions on Industrial Electronics, 2017, 64(10): 8148-8157.
11. Qingchao Jiang, Biao Huang*. Distributed Monitoring for Large-Scale Processes Based on Multivariate Statistical Analysis and Bayesian Method. Journal of Process Control, 2016, 46, 75-83.
12. Qingchao Jiang, Biao Huang*, Steven X. Ding, Xuefeng Yan. Bayesian Fault Diagnosis with Asynchronous Measurements and Its Application in Networked Distributed Monitoring. IEEE Transactions on Industrial Electronics, 2016, 63, 6316-6324.
13. Qingchao Jiang, Biao Huang*, Xuefeng Yan. GMM and Optimal Principal Components-Based Bayesian Method for Multimode Fault Diagnosis. Computer & Chemical Engineering, 2016, 84, 338-349.
14. Qingchao Jiang*, Xuefeng Yan, Huang, Biao. Performance-Driven Distributed PCA Process Monitoring Based on Fault-relevant Variable Selection and Bayesian Inference. IEEE Transactions on Industrial Electronics, 2016, 63, 377-386.
15. Qingchao Jiang, Xuefeng Yan*. Nonlinear Plant-Wide Process Monitoring Using MI-Spectral Clustering and Bayesian Inference-Based Multiblock KPCA. Journal of Process Control, 2015, 32, 38-50.
16. Qingchao Jiang, Xuefeng Yan*. Just-In-Time Reorganized PCA Integrated with SVDD for Chemical Process Monitoring. AIChE Journal, 2014, 60 (3): 949-965.