



# 北京理工大学

## 数学与统计学院学术报告

### Scalable unification of distributed Bayesian analysis

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**时 间:** 2023.12.25 15:00-16:00

**地 点:** 文萃楼E311

**摘要:** There has been considerable interest in addressing the problem of unifying distributed analyses into a single coherent inference, which arises in big-data settings, when working under privacy constraints, and in Bayesian model choice. Most existing approaches relied upon approximations of the distributed analyses, which have significant shortcomings the quality of the inference can degrade rapidly with the number of analyses being unified, and can be substantially biased when unifying analyses that do not concur. In contrast, recent Monte Carlo fusion approach is exact and based on rejection sampling. This talk will present a practical Bayesian fusion approach by embedding the Monte Carlo fusion framework within a sequential Monte Carlo algorithm, which is more robust than existing methods.

**个人简介:** 戴宏声教授，2000年于天津大学数学系毕业，2003年获得北京大学统计学硕士学位，2008年获得牛津大学统计学博士学位，导师为Peter Clifford教授。2006年9月至2023年5月，分别全职任教于英国兰卡斯特大学，布莱顿大学，艾塞克斯大学。2021年8月至2023年5月任艾塞克斯大学数学系系主任。2023年6月加入纽卡斯尔大学为全职教授。目前主要研究方向为贝叶斯计算统计，生物统计。