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基本信息

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研究兴趣

最优化理论、统计计算、信息融合、机器学习、人工智能

教育经历

1999-2003 四川大学数学学院 本科

2003-2006 吉林大学数学学院 硕士

2006-2009 四川大学数学学院 博士

工作经历

2009.7-2011.4 四川大学计算机学院 博士后、讲师

2011.5-2013.6 四川大学数学学院 副教授

2012.2-2012.3 美国Arizona State University 访问交流

2012.3-2013.2 美国Syracuse University 博士后

2019.2-2019.3美国Harvard University 访问交流

2013.7-至今 四川大学数学学院 教授、博导

2019.1-至今 四川大学视觉合成国家级重点实验室 博导

教学课程

本科：数理统计，Monte Carlo Statistical Methods

研究生：现代概率论基础，Convex Optimization, Nonlinear Programming, Statistical Foundations of Data Science, Deep Learning, Reinforcement Learning

代表论文及著作

[1] Z. Wang, X. Shen*, H. Liu, F. Meng, and Y. Zhu, “Dual set membership filter with minimizing nonlinear transformation of ellipsoid,” *IEEE Transactions on Automatic Control*, 2021.

[2] F. Meng, X. Shen*, Z. Wang, H. Liu, J. Wang, Y. Zhu, and P. K. Varshney, “Multiple-source ellipsoidal localization using acoustic energy measurements,” *Automatica*, vol. 112, 2020.

[3] Y. Liao, X. Shen*, and H. Rao, “Analytic sensor rules for optimal distributed decision given k-out-of-l fusion rule under Monte Carlo approximation,” *IEEE Transactions on Automatic Control*, vol. 65, no. 12, pp. 5488–5495, 2020.

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[5] Z. Wang, X. Shen*, and Y. Zhu, “On equivalence of major relaxation methods for minimum ellipsoid covering intersection of ellipsoids,” *Automatica*, vol. 103, pp. 337–345, 2019.

[6] X. Shen*, P. K. Varshney, and Y. Zhu, “Robust distributed maximum likelihood estimation with dependent quantized data,” *Automatica*, vol. 50, pp. 169–174, January 2014.

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[8] X. Shen*, S. Liu, and P. K. Varshney, “Sensor selection for nonlinear systems in large sensor networks,” *IEEE Transactions on Aerospace and Electronic Systems*, vol. 50, pp. 2664–2678, October 2014.

[9] X. Shen, Y. Luo, Y. Zhu, and E. Song, “Globally optimal distributed Kalman filtering fusion,” *SCIENCE CHINA—Information Sciences* (Review, Special Focus), vol. 55, pp. 512–529, March 2012.

[10] X. Shen, Y. Zhu, E. Song, and Y. Luo, “Minimizing Euclidean state estimation error for linear uncertain dynamic systems based on multisensor and multi-algorithm fusion,” *IEEE Transactions on Information Theory*, vol. 57, pp. 7131–7146, October 2011.

[11] X. Shen, Y. Zhu, and Z. You, “An efficient sensor quantization algorithm for decentralized estimation fusion,” *Automatica*, vol. 47, pp. 1053–1059, May 2011.

[12] X. Shen, Y. Zhu, L. He, and Z. You, “A near-optimal iterative algorithm via alternately optimizing sensor and fusion rules in distributed decision systems,” *IEEE Transactions on Aerospace and Electronic Systems*, vol. 47, pp. 2514–2529, October 2011.

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[16] X. Shen, Y. Zhu, E. Song, and Y. Luo, “Optimal centralized update with multiple local out-of-sequence measurements,” *IEEE Transactions on Signal Processing*, vol. 57, pp. 1551–1562, April 2009.

[17] X. Shen, Y. Zhu, and L. Song, “Linear B-Spline copulas with applications to nonparametric estimation of copulas,” Computational Statistics & Data Analysis, vol. 52, pp. 3806–3819, March 2008.

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科研项目（主持项目）

[1] 2019247，智能跟踪理论与算法研究，国家级重点项目，2019.1-2022.12.

[2] 61673282偏差有界不确定性系统机动目标容差估计融合和数据关联，国家自然科学基金面上基金项目，2017.1-2020.12

[3] 61673282某些系统错误存在时的多传感估计融合容错稳健方法研究，国家自然科学基金青年基金项目，2011.1-2013.12

[4] 201314 目标跟踪的多传感器多算法融合理论和算法研究，教育部全国百篇优秀博士学位论文作者专项基金项目，2013.12-2017.12

[5] 201003698具有不确定系统信息的多传感器估计融合稳健方法研究，中国博士后科学基金（特别资助金），2010.12-2011.12

[6] 20090460095多传感器网络容错稳健估计融合问题， 中国博士后科学基金（一等资助金），2009.12-2011.04

学术荣誉

全国百篇优秀博士论文奖

人才培养

博士培养与就业

[1] 王治国博士，2020就职四川大学数学学院副研究员，2018推荐香港中文大学、深圳大数据研究院博士后（合作导师：罗智泉院士、李荐院士）

[2] 孟凡钦，2019就职人工智能四川省重点实验室讲师，四川大学空天学院在职博士后

[3] 廖义伟，2020推荐新加坡南洋理工大学博士后（合作导师：谢利华教授）、深圳大数据研究院博士后访问交流

硕士培养与就业

2013硕士王治国：直博、成都

2013硕士罗时超：就职新网银行、成都（Kaggle竞赛金奖获得者）

2013硕士饶航：就职奥浦诺管理咨询有限公司、上海

2014硕士廖义伟：直博、成都

2014硕士张逸：就职申港证券、上海

2014硕士王萍：就职新网银行、成都

2015硕士谢江琼：北京陌陌信息技术有限公司、成都

2015硕士刘海琪：直博、成都

2015硕士王君翌：深圳市龙岗区中学、深圳

2015硕士沙小茗：云南大学博士、昆明

2017硕士李晓薇：直博、成都

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2017硕士李显：华为、成都

2018硕士孙佳婕：考博、成都

2018硕士贾宇竹：知我探索教育科技有限公司、上海

招生专业

概率论与数理统计、应用统计、人工智能、机器智能与类脑计算

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