

学术报告会

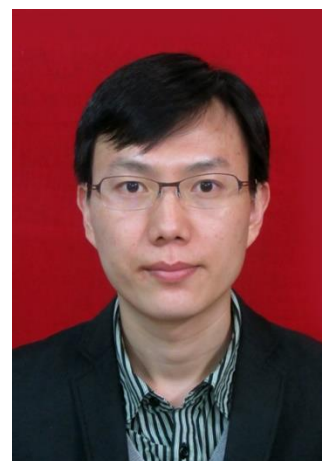
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Recent Developments in Frequency Estimation and Compressed Sensing

杨在教授

南京理工大学自动化学院



Abstract:

Frequency estimation, the process of estimating the complex frequency components of a signal, is a classical yet important problem in signal processing and is involved in array processing, radar, sonar, communications, etc. On the other hand, compressed sensing refers to an emerging technique of estimating a sparse signal from far fewer samples and has been the most influential result in information theory and signal processing in the past decade. In this talk, we first introduce these two research areas and then move to the grid-based sparse methods for frequency estimation by applying compressed sensing. We highlight a recent class of methods for frequency estimation designated as gridless sparse methods that overcome certain limitations of the previous ones. These gridless methods in turn inspire the concept of continuous compressed sensing that broadens the scope of compressed sensing. We finally point out some future directions and conclude this talk.

Biography:

杨在，南京理工大学“青年拔尖人才选聘计划”教授。2007和2009年中山大学数学系毕业，分获本科和硕士学位。2013年6月新加坡南洋理工大学电气与电子工程学院毕业，获博士学位。后继续在南洋理工大学从事博士后研究。2015年12月入职南京理工大学自动化学院。研究领域包括压缩感知、信号频谱分析、阵列和雷达信号处理、医学成像等。目前发表SCI期刊论文10篇，其中7篇以第一作者发表在《IEEE信号处理汇刊》。