Estimation and Inference

Call for Papers

This special issue will focus on the intersection of Information theory with estimation and inference. Information Theory has provided powerful tools as well as deep insights into optimal procedures for statistical inference and estimation. The application of these tools include characterization of optimal error probabilities in hypothesis testing, determination of minimax rates of convergence for estimation problems, analysis of message-passing and other efficient algorithms, as well as demonstrating the equivalence of different estimation problems. This issue will illuminate new connections between information theory, statistical inference, and estimation, as well as highlight applications where information-theoretic tools for inference and estimation have proved fruitful in a wide range of areas including signal processing, data mining, machine learning, pattern and image recognition, computational neuroscience, bioinformatics and cryptography.

Prospective authors are invited to submit original manuscripts on topics within this broad scope including, but not limited to:

- Matrix and Tensor Estimation
- Graphical Models
- Optimization for Estimation and Inference
- High-dimensional Statistics
- Privacy
- Generalization Bounds and Connections to Learning Theory
- Functional Estimation
- Message-Passing Algorithms
- Bayesian Inference
- Black-box Uncertainty Quantification and Inference
- Combinatorial Estimation Problems

Submission Guidelines

Prospective authors must follow the *IEEE Journal on Selected Areas in Information Theory* guidelines regarding the manuscript and its format. For details and templates, please refer to the *IEEE Journal on Selected Areas in Information Theory* [Author Information](#) webpage. All papers should be submitted through Scholar One according to the following schedule:

Important Dates

Manuscript Due: May 1, 2020
Acceptance Notification: October 15, 2020
Final to Publisher: November 5, 2020
Expected Publication: November/December 2020

Manuscript Submission Website: https://mc.manuscriptcentral.com/jsait-ieee