IEEE Journal on Selected Topics in Signal Processing

IEEE Transactions on Signal and Information Processing over Networks

Special Issues on Graph Signal Processing

Numerous applications rely on the processing of high-dimensional data that resides on irregular or otherwise unordered structures which are naturally modeled as networks (such as social, economic, energy, transportation, telecommunication, sensor, and neural, to name a few). The need for new tools to process such data has led to the emergence of the field of graph signal processing, which merges algebraic and spectral graph theoretic concepts with computational harmonic analysis to process signals on structures such as graphs. This important new paradigm in signal processing research, coupled with its numerous applications in very different domains, has fueled the rapid development of an inter-disciplinary research community that has been working on theoretical aspects of graph signal processing and applications to diverse problems such as big data analysis, coding and compression of 3D point clouds, biological data processing, and brain network analysis.

The purpose of these special issues is to gather the latest advances in graph signal processing and disseminate new ideas and experiences in this emerging field to a broad audience. We encourage the submission of papers with new results, methods or applications in graph signal processing. In particular, the topics of interest include (but are not limited to):

Sampling and recovery of graph signals
Graph filter and filter bank design
Uncertainty principles and other fundamental limits
Graph signal transforms
Graph topology inference
Prediction and learning in graphs
Statistical graph signal processing
Non-linear graph signal processing
Applications to visual information processing
Applications to neuroscience and other medical fields
Applications to economics and social networks
Applications to various infrastructure networks

Submission procedure:

Prospective authors should follow the instructions given on the IEEE JSTSP webpages and submit their manuscript with the web submission system at https://mc.manuscriptcentral.com/jstsp-ieee. The decisions on whether the accepted papers will be published in IEEE JSTSP or IEEE TSIPN will depend on the respective themes of the papers and will be made by the Guest Editors.

Schedule (all deadlines are firm)

Manuscript due:	~~Nov 1, 2016~~ **Extended to: Nov. 15, 2016**
First Review Completed:	Jan 1, 2017
Revised manuscript due:	Mar 1, 2017
Second Review Completed:	May 1, 2017
Final manuscript due:	June 1, 2017
Publication date:	September 2017

Guest Editors:

Pier-Luigi Dragotti, Imperial College, London (p.dragotti@imperial.ac.uk)
Pascal Frossard, EPFL, Lausanne (pascal.frossard@epfl.ch)
Antonio Ortega, USC, Los Angeles (ortega@sipi.usc.edu)
Michael Rabbat, McGill University, Montreal (michael.rabbat@mcgill.ca)
Alejandro Ribeiro, UPenn, Philadelphia (aribeiro@seas.upenn.edu)