

## Symposium on Tensor Methods for Signal Processing and Machine Learning Call for Papers

### General Chairs:

Panos P. Markopoulos, *Rochester Institute of Technology*  
Evangelos E. Papalexakis, *University of California Riverside*

### Technical Program Chairs:

Fauzia Ahmad, *Temple University*  
André L. F. de Almeida, *Federal University of Ceará, Brazil*  
Xiao Fu, *Oregon State University*  
Dimitris A. Pados, *Florida Atlantic University*

Tensor methods have been attracting increasing documented interest over the past decade, finding a plethora of important signal processing, data analysis, and machine learning applications. Tensors have been extensively employed in several research areas such as computer vision, chemometrics, bioinformatics, communications, array processing, network analysis, data mining, and deep learning, among others. The wide success of tensor methods can be attributed to their inherent ability to better model, analyze, predict, recognize, and learn from multi-modal data. This symposium wishes to serve as a global forum for researchers to meet, exchange ideas, and present new theoretical and algorithmic findings related to tensor methods. Based on broad signal processing and machine learning foundations, this symposium aspires to foster interdisciplinary discussions and bring together researchers from both academia and the industry.

*Topics of interest include but are not limited to:*

- Theoretical and algorithmic advances in multi-linear algebra and tensor decomposition
- Scalable and distributed algorithms for tensor processing
- Methods for robust tensor processing with faulty and/or missing data
- Incremental/online algorithms for tensor processing and analysis
- Machine learning with tensor formulations
- Tensor methods in neural networks and deep learning
- Application of tensor methods in data mining
- Tensor based computer vision and image processing
- Tensor processing and analysis in social networks and economics
- Applications of tensor processing in wireless communications and sensor networks
- Tensor developments in chemometrics
- Tensor methods in neuroscience and medicine
- Tensor applications in hyperspectral imaging
- Applications of tensor processing in medical imaging

**Paper Submission:** Prospective authors are invited to submit full-length papers (up to 4 pages for technical content including figures and possible references, and with one additional optional 5th page containing only references) and extended abstracts (up to 2 pages, for paper-less industry presentations and Ongoing Work presentations) via the GlobalSIP 2018 conference website. Manuscripts should be original (not submitted/published anywhere else) and written in accordance with the standard IEEE double-column paper template. The accepted abstracts will not be indexed in IEEE Xplore, however the abstracts and/or the presentations will be included in the IEEE SPS SigPort. Accepted papers and abstracts will be scheduled in lecture and poster sessions.

### Important Dates:

- **June 17, 2018:** Paper submission due
- **Aug. 7, 2018:** Notification of acceptance
- **Aug. 22, 2018:** Camera-ready paper due

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