



Symposium on Signal, Information Processing and AI for Finance and Business

Call for Papers

General Chairs:

Xiao-Ping (Steven) Zhang
Ryerson University, Canada

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IBM Thomas J Watson Research Center, USA

Technical Committee:

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Sue Ann Chen, IBM Research, Australia
Stephen M. Chu, IBM Research, China
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Konstantinos N. Plataniotis, University of Toronto, Canada
Fang Wang, Wilfrid Laurier University, Canada
Yada Zhu, IBM Research, USA

We are witnessing fast development of the acquisition of big data, as well as emerging AI and blockchain technologies, in both financial market and business operations. As a data processing and system-modeling tool, signal processing, closely married with AI and machine learning, is being used or has great potential in applications in finance and business, such as in capital market analysis, quantitative trading strategy, risk management, economics modeling, marketing data and business analytics, supply chain, business performance modeling and analysis, and blockchain systems. These applications pose new challenges for signal processing since the business data are often nonstationary, non-Gaussian and "dirty", with unknown/hidden causal relationships. In addition, in business applications, controlled experiments usually cannot be conducted and ground truth is often not available for testing and verifying the models. This symposium aims to attract relevant research contributions within the disciplines of finance/business, mathematics, data science and engineering to facilitate scientific cross-pollination. It will serve the signal processing community to be exposed to the state of the art in finance and business applications, and to foster future research in this emerging area. Topics of interest include but are not limited to the signal processing and AI machine learning methods and applications in

- Big Data Analytics in Finance, Marketing and Business
- Finance and Electronic Trading
- Financial and Time Series Forecasting
- Market Modeling (microstructure, price behavior and discovery, limit order book, etc.)
- Economics and Marketing Modeling
- Social Media Analysis for Economics and Marketing
- Statistical Modeling and Monte-Carlo Methods in Business
- Portfolio Optimization and Management, Risk Analysis and Models
- Workforce Analytics and Human Capital Management
- Multimedia Analytics, Customer and Sales Analytics
- Quantitative Analysis in Sports
- Supply chain, Business Performance Modeling and Analysis
- Blockchain, IoT and other Emerging Business Applications

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 2019 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. **We are also inviting industry talks. Please contact the Symposium Chairs if you are interested in giving an industry talk.**

Important Dates:

- ❖ **June 17, 2019:** Paper submission due
- ❖ **July 15, 2019:** Notification of Acceptance
- ❖ **August 15, 2019:** Camera-ready papers due