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IEEE Signal Processing Society
IEEE Journal of Selected Topics in Signal Processing

Special Issue on Signal Processing Methods in Finance and Electronic Trading

Advances in digital processing, storage and internetworking of data have already transformed almost every aspect of the global economy. The advances in low-latency computer networking and the affordability of high performance computing have had significant impact in creating mega scale market opportunities for numerous services and products. The financial services industry has already deployed state of the art data collection and distribution infrastructure to benefit from these technological developments. These developments offer many inter-disciplinary research opportunities for scientists and engineers. This special issue aims to compile research contributions in financial applications from the fields of mathematics, finance and engineering in order to foster scientific cross-fertilization. Moreover, we hope that it will serve to increase the interest of the Signal Processing community on financial signal processing and electronic trading for research and development activities in the future.

Topics of interest include but are not limited to

- Fundamentals of Financial Signals and Quantitative Finance
- Market Microstructure Modeling and Analysis (price behavior and discovery, limit order book, transaction costs, impact of trading mechanisms, etc.)
- Stochastic Volatility Measurements and Models
- Risk Analysis and Models (risk and correlation measures, estimation techniques)
- Monte Carlo Strategies in Financial Signal Processing
- Theory of Games and Auctions in Financial Models
- Dynamic Portfolio Optimization and Management
- Machine Learning for Financial Applications
- Multiresolution Techniques for Multifrequency Investment and Trading
- Innovative Signal Processing Algorithms for Electronic Trading
- High Performance Signal Processing for Finance and Electronic Trading
- Intelligent Order Routing Algorithms and Low-Latency Systems

Submission Procedure:

Information for prospective authors can be found at:
http://www.signalprocessingsociety.org/publications/periodicals/jstsp/. Manuscripts should be submitted through Manuscript Central system at http://mc.manuscriptcentral.com/jstsp-ieee. Manuscripts will be peer reviewed according to the IEEE standards.

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Revised manuscript due:	Nov 1, 2011	Second review completed:	January 1, 2012
Final manuscript due:	February 1, 2012		

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