CALL FOR PAPERS and POSTERS The Second Annual

2012 IEEE Signal Processing in Medicine and Biology Symposium (SPMB12)

City College of New York – New York, NY 10031 Saturday, December 1, 2012

Signal processing plays a broad role in the development of medical devices and in the analysis of physiological signals. This symposium will provide a forum for the presentation of research and development in signal processing as broadly defined to include image processing, 3D reconstruction, and other topics (see below) in medicine and biology.

Plenary speakers

Jelena Kovacevic (Carnegie Mellon University) Problems in Bioimaging: Opportunities for Signal Processing

Jonathan Viventi (Polytechnic Institute of New York University) High-Resolution Brain Machine Interfaces using Flexible Silicon Electronics

Suggested Symposium Topics

- Analysis of EEG, ECG, respiratory, other biomedical signals
- Medical imaging image formation, analysis, etc.
- Linear, nonlinear, and adaptive filtering and prediction
- Machine learning and classification
- Synchronization, coherence, coupling, connectivity, causality
- Nonlinear dynamics and system modeling
- Multi-sensor and array processing
- Time-frequency and non-stationary signal analysis
- Signal processing methods in bioinformatics
- Component analysis (PCA, ICA, etc.) and source separation
- Brain-computer interfaces (BCI)
- Biomedical instrumentation for novel signal measurement
- Open problems, emerging techniques and applications

Symposium Website:

http://bme.ccny.cuny.edu/IEEE-SPMB-2012

Important dates

Paper/abstract submission Notification Early registration October 26, 2012 November 2, 2012 November 23, 2012

Paper/Poster Submission

Presenters may choose to submit either:

- An original four to six page paper for peer review, to be published in IEEE Xplore and presented at the symposium.
- (2) A one page abstract, to be presented at the symposium in a poster session that may describe preliminary results, etc.

Accepted papers and abstracts will be presented as talks and poster sessions (*only papers that have been presented at the Symposium will be published in IEEE Xplore*).

Papers/abstracts should be submitted via the conference website. Papers must be prepared using the provided templates.

Registration

Early registration: by November 23 Late registration: after November 23 Register online: http://spmb12.eventbrite.com

Organizing Committee

Conference Chair Lucas Parra (City College of New York, NY)

Conference Co-chair / Treasurer Charles Rubenstein (*Pratt Institute, NY*)

Technical Program Chair Ivan Selesnick (Polytechnic Inst. of NYU, NY)

Publications Chair Susan Frank (Certified Software Development Professional)

Technical Program Committee

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For additional information please contact: biomedsigproc@poly.edu

The IEEE Signal Processing in Medicine and Biology Symposium is sponsored by IEEE-USA, the City College of New York (*CCNY*), and the Polytechnic Institute of New York University (*NYU-Poly*)







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