

Third annual IEEE / CCNY / NYU-Poly

# IEEE Signal Processing in Medicine and Biology Symposium (SPMB13)

Saturday, December 7, 2013

Polytechnic Institute of New York University

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 (broadly defined, i.e. including image processing, 3D reconstruction, etc.) in medicine and biology. The symposium is sponsored by IEEE-USA, the City College of New York (CCNY), and Polytechnic Institute of New York University (NYU-Poly).

## Plenary Speakers

[Jose Moura](#)

Carnegie Mellon University

*Modeling the Spread of Epidemics*

[Lucas Parra](#)

City College of New York

*Evoked potentials of the brain predict human behavior*

## 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

## Web

<http://poly.edu/spmb>

## Important dates

Paper/abstract submission	October 24, 2013
Notification	November 4, 2013
Early registration	November 29, 2013

## Paper/Abstract Submission

Presenters may choose to submit either:

- (1) An original four-six page paper for peer review. If accepted, it will be submitted to IEEE Xplore and presented at the symposium.
- (2) A one page abstract describing recent or ongoing work. If accepted will be presented at the symposium. There will be no corresponding publication in IEEE Xplore.

Each presentation will be given as either a talk or poster based on recommendations from reviewers.

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

## Registration

Early registration: by November 29

Late registration: after November 29

Register online: <http://spmb13.eventbrite.com/>

## Committee

Conference Chair

Ivan Selesnick (Polytechnic Inst. of NYU)

Conference Co-chair

Charles Rubenstein (Pratt Institute)

Technical Program Chair

Simon Kelly (City College of New York)

Publications Chair

M. Nazrul Islam (Farmingdale State College)

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Chin-Tuan Tan (NYU Medical Center)

Jonathan Vivoti (Polytechnic Inst. of NYU)

Henning Voss (Weill Cornell Medical College)

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