



2014 IEEE International Workshop on Genomic Signal Processing and Statistics at **GlobalSIP**

Atlanta, Georgia, USA, December 3-5, 2014

The 2014 Workshop on Genomic Signal Processing and Statistics (**GENSIPS'14**) will join the 2014 IEEE Global Conference on Signal and Information Processing (**GlobalSIP'14**) to be held in Atlanta on Dec. 3-5, 2014. **GENSIPS'14** will continually provide a forum for researchers in signal processing, bioinformatics, computational biology, and biostatistics to share the state-of-art advances in the fast growing genomics, proteomics, metabolomics, lipidomics, and metagenomics areas and to tackle the challenges of high dimensionality, high heterogeneity, and high complexity.

Papers on unpublished original research are solicited. Topics of interest include, and not limited to:

- Big data analytics for genomics, proteomics, metabolomics, lipidomics, and metagenomics data
- Next generation sequencing data compression
- Genomics sequencing signal quality control
- Analysis methods for SNP/genotype/epigenetic data
- Dynamic modeling of regulatory and signaling networks
- Single-cell & cellular heterogeneity analysis
- Integration of multi-modality omic data
- Genomics and protein array image analysis
- Statistical signal processing of sequencing data
- Computational and statistical analysis of meta-genomics
- Cancer genomics, Neuro genomics, Cardio genomics
- Environmental genomics and toxicogenomics
- Functions of microRNA and non-coding RNAs
- Crowd-sourcing for novel biomarker discovery methods
- Sequencing alignment and assembly
- Cloud-based -omic data analysis & storage
- Genomics text data processing
- -omic data visualization
- Structural and comparative genomics
- Epigenetics and DNA Methylation analysis
- Translational bioinformatics
- Gene expression pattern recognition
- Pharmaco-genomics
- Plant genomics
- Bioinformatics of health monitoring
- Molecular interaction and pathways

Prospective authors should submit to GENSISP 2014 by EDAS <http://edas.info/newPaper.php?c=17341>. Please use 2-column IEEE template (available at <http://www.ieeeglobalsip.org/formatting.html>) for paper up to 4 pages, and one-page abstracts for posters or recent paper highlight. The key dates are:

Paper submission deadline	Sept 29, 2014
Notification of Acceptance	Oct 20, 2014
One-page poster abstract deadline	Oct 30, 2014
GENSIPS'14	December 3-5, 2014

One special session is planned to highlight recent published papers in bioinformatics related fields in 2014. Authors interested in presenting their recent publications are welcomed to submit one-page abstracts.

Selected papers will be invited to submit to **IEEE Journal of Biomedical and Health Informatics** and **IEEE/ACM Transactions on Computational Biology and Bioinformatics** for peer-review and publication.

Student Travel Awards sponsored by NSF will be provided to student authors of papers with exceptional quality.