The 2\textsuperscript{nd} International Workshop on Computational Network Biology: Modeling, Analysis, and Control (CNB-MAC 2015)

September 9, 2015 | GeorgiaTech Global Learning Center, Atlanta, GA

**Workshop Program:**

08:45-09:00 Opening Remarks – Drs. Byung-Jun Yoon, Tamer Kahveci

09:00-10:00 Keynote by Dr. Shuzhao Li – *Session chair: Dr. Tamer Kahveci*

- Title: “Multi-omics modeling for systems medicine”

10:00-10:10 Break

10:10-11:40 Highlight Session (1) – *Session chair: Dr. Lori Dalton*

- Wei Zhang, Jae-Woong Chang, Lilong Lin, Kay Minn, Baolin Wu, Jeremy Chien, Jeongsik Yong, Hui Zheng and Rui Kuang. **Network-based isoform quantification with RNA-Seq data for cancer transcriptome analysis**
- Yitan Zhu and Yuan Ji. **Zodiac: A comprehensive depiction of genetic interactions in cancer by integrating TCGA data**
- Lori Dalton and Mohammadmahdi Rezaei Yousefi. **On optimal Bayesian classification and risk estimation under multiple classes**

11:40-13:00 Lunch Break

13:00-14:00 Research Papers – *Session chair: Dr. Mohammadmahdi Rezaei Yousefi*

- Haitham Gabr, Juan Carlos Rivera-Mulia, David Gilbert and Tamer Kahveci. **Computing interaction probabilities in signaling networks**
- Lei Huang, Li Liao and Cathy H. Wu. **Inference of protein-protein interaction networks from multiple heterogeneous data**

14:00-15:00 Highlight Session (2) – *Session chair: Dr. Xiaoning Qian*

- Qingming Tang, Siqi Sun and Jinbo Xu. **Learning scale-free networks by dynamic node-specific degree prior**
- Lori Dalton, Marco E. Benalcázar, Marcel Brun and Edward Dougherty. **Analytic representation of Bayes labeling and Bayes clustering operators for random labeled point processes**

15:00-15:15 Break
15:15-15:45 Five-Minute Lightning Talks for Posters – Session chair: Dr. Byung-Jun Yoon

- Daniel N. Mohsenizadeh, Roozbeh Dehghannasiri and Edward R. Dougherty. An experimental design to reduce dynamics uncertainty in genomic networks
- Hyundoo Jeong and Byung-Jun Yoon. Identifying molecular complexes in biological networks through context sensitive network querying
- Ali Foroughi Pour and Lori Dalton. Optimal Bayesian feature filtering
- Yijie Wang and Xiaoning Qian. A computational framework for finding functional modules across multiple biological networks
- Mansuck Kim, Huan Zhang, Charles Woloshuk, Won-Bo Shim and Byung-Jun Yoon. Computational identification of key functional genes associated with Fusarium verticilloides pathogenicity
- Meltem Apaydin, Bo Zeng, Shaogang Ren and Xiaoning Qian. A computationally efficient solution strategy for optimal gene knockouts for targeted overproduction

15:45-16:30 Poster Session

16:30-16:45 Closing Remarks – Dr. Xiaoning Qian

NOTE: We encourage CNB-MAC participants to attend the tutorial “Functional Module Identification in Biological Networks” by Dr. Xiaoning Qian from 5:00PM to 6:00PM. This tutorial is part of the main ACM-BCB conference program.