

**DEPARTMENT OF STATISTICS AND BIOSTATISTICS  
CENTER FOR INTEGRATIVE PROTEOMICS RESEARCH**



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University of Florida

*Pathway-based Integrative Analysis of Omics  
Data with Applications to Prostate Cancer*

**December 2, 2015**

**3:20 – 4:20pm**

Light refreshments will be served

**110 Frelinghuysen Road  
Hill Center, Room 552**

**Abstract:** We start by providing a brief overview of the challenges for integrating biological data from different Omics technologies (e.g. transcriptomics, proteomics, metabolomics). Then, we introduce a novel framework that provides rigorous quantitative assessment of enriched pathways across multiple data sources. The methodology is illustrated on a prostate cancer study that identified a key role of the hexosamine biosynthetic pathway in this disease progression

**Bio:** Dr. George Michailidis has a PhD in Mathematics from The University of California at Los Angeles, and a BS in Economics from University of Athens, Greece. He is currently Professor of Statistics, Computer and Information Services; and Director of Institute of Bioinformatics at The University of Florida. His research interests include: modeling and analysis of high-dimensional data, modeling and analysis of networks with applications to finance, biology and engineering, bioinformatics with emphasis in integration of diverse Omics data, stochastic control with emphasis on routing and scheduling problems for computer, communications and electrical power networks, change-point analysis and long-range dependence and heavy-tails with applications to network traffic.

