Abstract:
Sparse methods have been shown to be a versatile and powerful tool for biomedical data analysis. In this talk, we consider sparse methods for (1) variable selection where the structure over the features can be represented as an undirected graph or a collection of disjoint groups or a tree, (2) multi-source data fusion with a "blockwise" data missing pattern, and (3) network construction. We address the computational challenge by designing novel screening strategies which scale sparse methods to large-size problems.

Bio:
Jieping Ye is Associate Professor of Computer Science and Engineering at the Arizona State University. He is a core faculty member of the Bio-design Institute at ASU. He received his Ph.D. degree in Computer Science from the University of Minnesota, Twin Cities in 2005. His research interests include machine learning, data mining, and biomedical informatics. He has served as Senior Program Committee/Area Chair/Program Committee Vice Chair of many conferences including NIPS, KDD, IJCAI, ICDM, SDM, ACM, and PAKDD. He serves as an Associate Editor of IEEE Transactions on Pattern Analysis and Machine Intelligence. He won the SCI Young Investigator of the Year Award at ASU in 2007, the SCI Researcher of the Year Award at ASU in 2009, and an NSF CAREER Award in 2010. His papers have been selected for the outstanding student paper at the International Conference on Machine Learning in 2004, the KDD best research paper honorable mention in 2010, the KDD best research paper nomination in 2011 and 2012, the SDM best research paper runner up in 2013, and the KDD best research paper runner up in 2013.