Topics on multiple testing

Hongyuan Cao

Florida State University E-mail: hcao@fsu.edu

Abstract: High throughput technologies enable simultaneous inference of complex high dimensional data. An acute problem is the multiple testing adjustment. Most existing literature examine the problem under independence and sparsity assumptions. We propose a multiple testing procedure to incorporate dependence and non-sparsity features inherent in many high dimensional data, such as microRNA in genomics and quantitative high throughput screening (qHTS) assays in toxicology.