

BIOSTATISTICS SEMINAR



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Adjustments of some distance based classifiers in HDLSS settings

Classical distance based classifiers like the nearest neighbor and average distance are quite effective methods for discrimination. However, these methods suffer from severe problems in high dimension low sample size (HDLSS) settings, and yield poor performance if the differences in their locations gets masked by the scale differences. In the literature, several methods have been developed that are quite effective when the competing populations differ either in locations, scales or both. In this talk, we shall propose some transformations of these classical methods that enable us to discriminate between populations which possess differences under more general conditions. Some methods for estimating groups of component variables will also be discussed. We shall then analyze the performance of the proposed classifiers using some numerical examples, and investigate their theoretical properties using ideas from HDLSS asymptotics.

Thursday February 7, 2019

3:30 pm - 4:30 pm

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