

A Classification Method Incorporating Interactions among Variables for High-dimensional Data

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In this talk, we present a classification method incorporating interactions among variables using an influential measure introduced by Lo and Zheng (2002, 2004) as a basic tool. The proposed classification method is intended to have two desirable properties. First, the classification rule derived from the method has low error rates. Secondly, in the process of constructing the classification rule, influential variables responsible for the response are identified. That is, not only the classification result is accurate but also the classification rule contains important information in understanding the phenomenon under study.