An adaptive clustering for curve data

Heng-Hui Lue

Tunghai University
E-mail: hhlue@thu.edu.tw

Abstract: We propose a new adaptive approach for clustering curve data. The data-adaptive searching method based on dimension reduction theory is proposed for estimating the basis functions and the sufficient dimension reduction space of predictors. These estimates are obtained through local linear approximation techniques without requiring a prespecified parametric model. A K-means clustering method is then adopted for curve clustering analysis. Several examples are reported for illustration.