Using the growth curve model in classification of repeated measurements

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Abstract

In this paper, discrimination between two populations following the growth curve model is considered. A likelihood-based classification procedure is established, in the sense that we compare the two likelihoods given that the new observation belongs to respective population. The possibility to classify the new observation as belonging to an unknown population is discussed, which is shown to be natural when considering growth curves. Several examples and simulations are given to emphasize this possibility.

Keywords Discriminant analysis · Growth curve model · Likelihood-based classification

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