On the Multivariate Random Coefficient Model

by

Chungyeol Shin
Iowa State University

ABSTRACT

The general multivariate random coefficient model is introduced for pooling cross-section and time-series data. The model includes fixed and random coefficients. In fitting such models, the determination of whether coefficients or effects should be treated as constant or random is an important part of statistical analysis and is also of practical interest. Testing for the random coefficient structure over the response variables and over the covariates is considered. Two exact tests and one asymptotic test are described and compared numerically.