

KEYNOTE SPEAKER'S ADDRESS
**MODELLING ITEM MISSINGNESS IN CROSS-SECTIONAL MULTIVARIATE DATA
AND DROP OUT IN LONGITUDINAL MULTIVARIATE DATA: A LATENT VARIABLE
APPROACH**

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ABSTRACT

Sample surveys collect information on a number of variables for a randomly selected number of respondents. Among other things, the aim is often to measure some underlying trait(s) of the respondents through their responses to a set of questions and that is often achieved by fitting a latent variable model.

Surveys are either cross-sectional or longitudinal and missingness occurs in both. Cross-sectional surveys often suffer from item non-response where longitudinal surveys suffer from drop out and item non-response. A latent variable approach is adopted for handling non-ignorable item non-response and drop out. Various model specifications are proposed to model the missing data mechanism together with the measurement and structural model. The model for the missing data mechanism will serve two purposes: first to characterize the item non-response/ drop-out as ignorable or non-ignorable and consequently to study the patterns of missingness/drop out and characteristics of non-respondents but also to study through a sensitivity analysis the effect that a mis-specified model for the missing data mechanism might have on the structural part of the model.

The models proposed will be applied to real data from the European Social Survey and the British Household Panel Survey.