Dipartimento di Economia e Impresa
Data Science Group

Università di Catania

SEMINARIO

Zsuzsa Bakk

Leiden University

A two-step approach to Latent Class Analysis for models with complex dependencies

Abstract: Latent class analysis is a statistical method widely used by social and behavioral scientists for building typologies and classifications based on a set of observed characteristics. Examples include typologies of individual's attitudes based on survey questions, subtypes of schizophrenia patients derived from recorded mood symptoms, and classifications of consumers inferred from stated or revealed preferences. Researchers usually relate the classifications to other variables, for example to assess how attitudes vary by education or nationality. This analysis is usually performed using the method of three-step latent class analysis. While this approach works well in most situations, it fails when the way the latent classes are related to the observed responses differs across subgroups. This often happens for example in cross-national surveys, where the survey questions have a different meaning in some countries due to differences in translation. Using the three-step approach it is impossible to identify and account for these types of differences, leading often to meaningless or unfair conclusions. I propose a novel two-step latent class approach that can easily identify and adequately model subgroup differences, thus avoiding erroneous conclusions. Furthermore the approach is general enough to be applicable in any situation that requires stepwise latent class modelling.

Mercoledì 5 Aprile 2017, ore 10.00
Aula C – Palazzo Fortuna, Corso delle Province n°36, Catania