

Speaker: Kim De Roover (KU Leuven)

Title: “Finding clusterwise measurement invariance with mixture multigroup factor analysis”

Abstract:

Psychological research often builds on between-group comparisons of (measurements of) latent variables, for instance, to evaluate cross-cultural differences in mindfulness. A critical assumption in such comparative research is that the same latent variable(s) are measured in the same way across all groups (i.e., measurement invariance). Nowadays, measurement invariance is often tested across lots of groups. When (a certain level of) measurement invariance is untenable across many groups, it is hard to unravel invariances from non-invariances and for which groups they apply. Mixture multigroup factor analysis (MMG-FA; De Roover, 2021; De Roover, Vermunt, & Ceulemans, 2020) was recently proposed to cluster groups based on the measurement parameters, whereas the structural parameters are allowed to differ between groups within a cluster. More specifically, MMG-FA clusters the groups according to a specific level of ‘clusterwise measurement invariance’ (e.g., based on factor loadings only to achieve metric invariance within clusters, or based on loadings and intercepts to achieve scalar invariance within clusters). In this presentation, the full framework of mixture multigroup factor analysis and the ‘mixmgfa’ R-package are presented, as well as how to take the steps from the initial overall level of invariance across all groups to the desired level of clusterwise invariance.