# 10th International Conference of Panel Data Users in Switzerland

## Workshop 5A – Longitudinal methods

### Title

*Latent Transition Analysis and Employment Trajectories in Switzerland and the UK*

### Authors

*Dan ORSHOLITS, Université de Genève & NCCR LIVES*
*Matthias Studer, Université de Genève & NCCR LIVES*
…

### Abstract

Latent transition analysis is a promising method for jointly modelling latent constructs or states and transitions between them over time. An extension of latent class analysis, latent transition analysis allows defining latent states based on multiple categorical indicators (at least canonically), but also with continuous indicators. The transitions between latent statuses can then be estimated and these transitions can be dependent on covariates which allow establishing differences in the likelihood of transitioning between statuses for individuals. Contrary to latent Markov models, to which latent transition analysis is closely related, the likelihood of transitioning between states can be time inhomogeneous.

This paper applies latent transition analysis in order to establish different statuses of employment, and insecure employment after the 2008 financial crisis. Using multiple objective indicators of individuals' employment situation, it investigates whether certain categories of individuals were more likely to transition to vulnerable forms of employment using panel data from Switzerland (SHP) and the UK (BHPS & UKHLS) in the medium term using eight waves of data for each country. Notably, it aims establish whether individuals were more likely to transition to unemployment and insecure employment in the period following the crisis. Generally, we find that women and younger individuals were more likely to remain unemployed both before and after the crisis and that they are also more likely to transition to insecure employment be it from unemployment or secure employment. However, the role of education is less clear with inconsistent differences between categories.

It will also discuss more practical implications for the use of latent transition analysis with panel data and especially difficulties related to estimation of such models with more than two waves of data, and when there is sparsity or low number of individuals transitioning from one latent status to another. Considerations on how to report and visualize the results in order to facilitate interpretation of the analysis in the case of multiple waves of data in conjunction with multiple covariates will also be presented.