

PhD program in Statistics
DSS Statistics Seminar
March 22, 2024, 12:00

In person Room 24 (CU002)

Webinar <https://uniroma1.zoom.us/j/86881977368?pwd=SWRFcVFjMDZTa0lXZk05TE1zNm5adz09>
Passcode: 432940

Does measurement error distort country differences in temporary employment?
A study on Italy and the Netherlands using a multi-group hidden Markov model

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joint work with

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This paper investigates the effect of measurement error on two key labour market indicators: the distribution of temporary employment as well as the transition rate in and out of temporary employment over time in Italy and the Netherlands. In this way, we study whether the cross-country differences in these indicators (coming from the different institutions in the two labour markets) pertain when we correct for measurement error in socioeconomic data. The comparative analysis of the Italian and Dutch labour markets is carried out for the time period 2017-2019 using linked employment data from the Labour Force Survey and the Employment Register of the two countries. For this purpose, we use a multiple-group Hidden Markov Model with two indicators for the employment contract type that accounts for both random and systematic measurement error. The results indicate that measurement error severely biases our view on mobility from temporary to permanent employment in the two countries but also distorts the picture of cross-country differences in the phenomenon of interest.



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