**PhD program in Statistics** 

## DSS Statistics Seminar November 13, 2023, 15:00

In person Room 34 (CU002)

Webinar https://uniroma1.zoom.us/j/86881977368?pwd=SWRFc

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**Passcode: 432940** 

## Specification tools for time fixed effects in country panels

## Paolo Paruolo

Joint work with Giulia Canzian and Louis Ronchail European Commission, Joint Research Centre (JRC), Ispra (VA), Italy

This paper proposes specification tools for time fixed-effects in country panels that complement summary and graphical representations of the data. They cover the standard two-way fixed-effect model, as well as other more general d-way fixed effect specifications with  $d \geq 3$ . The tools are based on the observable characteristics of univariate time series of contrasts implied by a given specification; they use flagging rules based on graphical or statistical analysis. Evidence on which contrasts do not contain time fixed-effects can be harvested by algorithms; this paper discusses two examples of such algorithms. Implications for the specification of Differences in Differences estimation are discussed, and results are illustrated using a country panel of prices of mobile telecommunication services.

