UNIVERSITÄT GRAZ
UNIVERSITY OF GRAZ

Department of Economics

Host: Mag. Miriam Steurer M.A. Ph.D.

INVITATION

Lingyi Yang

(Oxford University and Alan Turing Institute)

On the topic:

"Economic nowcasting with signatures - exploiting information in data streams"

Economic nowcasting refers to the inference ("forecast") of the current ("now") state of the economy. This is necessary as key economic variables are often published with significant delays. The nowcasting literature focuses on the need to have fast, reliable estimates of these delayed indicators from available data sources.

The path signature is a mathematical object which captures geometric properties of sequential data; it naturally handles missing data from mixed frequency and/or irregular sampling – issues often encountered when merging multiple data sources – by embedding the observed data in continuous time. Calculating path signatures and using them as features in models has achieved state-of-the-art results in other fields such as handwriting recognition, finance, and healthcare. We look at the nowcasting problem by applying regression on signatures and show that this simple linear model subsumes the popular Kalman filter in theory and performs well in practice.

Date: 22nd November 2022
Starting time: 5.15 p.m.
Location: HS 111.21

All professors, lecturers, assistants and students are cordially invited to this lecture!