ALPEN-ADRIA UNIVERSITÄT KLAGENFURT

Invitation to a Talk

Aldo Paolillo, PhD

University of Rome Tor Vergata

"Advances in Estimating Nonlinear Non-Gaussian Economic Models"

online, BBB | Tuesday, 11 February 2025 | 3:00 p.m.

Abstract

This paper proposes a new approach to efficiently estimate and analyze economic models subject to large shocks. The methodology is applied to study the macroeconomic effect of these unusual shocks in a new Two-Sector model with heterogeneous exposure to the COVID-19 pandemic across sectors. We solve the model nonlinearly and propose a new nonlinear, non-Gaussian filter designed to handle large shocks and identify their source and time location. Monte Carlo experiments show that the estimation and identification of large shocks are feasible with a massively reduced running time. Empirical results indicate that the pandemic-induced economic downturn can be reconciled with a combination of large demand and supply shocks. Finally, we present a set of counterfactual experiments to filter out potential demand and supply shock complementarities, and perform a robustness exercise to check the sensitivity of the model parameters to large shocks. Talk will be given online: https://classroom.aau.at/b/kastner

Gregor Kastner and the Department of Statistics look forward to seeing you at the talk!