Speaker: Clement Lee (Newcastle University)

Date: 06/12/2022 at 13:15 on Microsoft Teams

Title: A Latent Time Series Model for House Price Indices

Abstract:
Repeat sales regression is a useful model for constructing a representative index from irregularly observed sale prices of houses with unobserved heterogeneity. The resulting index is traditionally deterministic in the sense that no temporal dynamics are incorporated. Recent works have demonstrated the feasibility of modelling such index as a stochastic process. In this work, a latent seasonal autoregressive integrated model is used, with the flexibility of assuming light-tailed or heavy-tailed errors. Applications to Land Registry data show the usefulness of the model, as well as the impact of the error distribution assumption on both the resulting indices and computational scalability.