ALPEN-ADRIA UNIVERSITÄT KLAGENFURT

INVITATION TO

Dynamic Models for Latent Structures: From Networks to Variable Selection

Luca Gherardini | University of Florence

Chaired by Gregor Kastner | Department of Statistics

Tuesday, 11 February 2025 | 16:00–16:30

Online, BBB

ABSTRACT

In this seminar, I will present recent advancements in dynamic statistical modeling, focusing on methodologies that capture evolving structures in networks and time series data. I introduce a novel framework for dynamic networks that jointly models time-varying nodes and edges using a zero-inflated Bernoulli approach, demonstrating improved estimation and prediction performance. Additionally, I discuss the integration of non-local priors within dynamic variable selection, where coefficients are designed to adapt smoothly over time, promoting sparsity and accommodating changing predictor relevance. Finally, I extend these ideas to multivariate time series by incorporating a dynamic stochastic block model into vector autoregressive models, providing fresh insights into latent network dynamics in environmental and social data. This seminar will highlight both the theoretical developments and practical applications of these models.

Talk will be given online: https://classroom.aau.at/b/kastner

We hope to see you there!

