

El Departamento Académico de Estadística del ITAM

anuncia la siguiente sesión (No. 236) de

EL SEMINARIO ALEATORIO

que, con el título

Seasonal Dynamic Factor Analysis and Bootstrap Inference: Application to Electricity Market Forecasting

Impartirá

Dr. Julio Rodríguez

Facultad de Ciencias Económicas y Empresariales
Universidad Autónoma de Madrid

Joint work with Andrés M. Alonso (Universidad Carlos III de Madrid), Carolina García-Martos and María Jesús Sánchez (Universidad Politécnica de Madrid)

Abstract

In this work, we propose the Seasonal Dynamic Factor Analysis (SeaDFA), an extension of Nonstationary Dynamic Factor Analysis, through which one can deal with dimensionality reduction in vectors of time series in such a way that both common and specific components are extracted. Furthermore, common factors are able to capture not only regular dynamics (stationary or not) but also seasonal ones, by means of the common factors following a multiplicative seasonal VARIMA(p,d,q) \times (P,D,Q) s model. Additionally, a bootstrap procedure that does not need a backward representation of the model is proposed to be able to make inference for all the parameters in the model. A bootstrap scheme developed for forecasting includes uncertainty due to parameter estimation, allowing enhanced coverage of forecasting intervals. A challenging application is provided. The new proposed model and a bootstrap scheme are applied to an innovative subject in electricity markets: the computation of long-term point forecasts and prediction intervals of electricity prices.

NOTA: LA PRESENTACIÓN SERÁ EN ESPAÑOL.

- Fecha: Viernes 27 de Abril 2012
- Seminario: 12:00
- Salón B-1, Plantel Río Hondo

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