Fin·ML

Conference

AN INPUT-OUTPUT HMM TO DESCRIBE STATES OF ENERGY PRICE IN NYISO MARKET

Abstract

The energy market in New York is centralized and managed by an independent system operator called NYISO. The price of energy on this market is determined by an auction mechanism. The Analysis of this price reveals that it is very volatile for several reasons (uncertain and inelastic demand, dynamic changes in the behavior of participants, etc.) that can be represented by models indexed by Markov chains.
In this work, an Input-Output HMM models is used to predict the price of energy and describe its hidden states. This model is well known for its ability to predict conditional price density. In order to be able to better describe the states (especially if they are numerous), a parsimonious parameterization is used.

This conference will be presented in French with slides in English + bilingual Q&A.

Ismael AFOLABI ASSANI

- PhD candidate in Statistics – Université de Montréal
- Research interest: Modeling of Financial Series particularly with model indexed by Hidden Markov chains (discrete and continuous), Hedging and Pricing of derivatives as well as the application of Machine Learning methods in Finance.

November 26, 2021
12:00 – 01:00 PM

Free registration required