Dr. Armin Seibert
Universität Augsburg

## Abstract

Titel:
"Bayesian inference of a stable CARMA model for electricity spot price dynamics"

Statistical modeling and estimation of electricity prices are an important issue for the risk management of electricity markets, which have undergone massive changes due to deregulations. We consider a model for the electricity price dynamics, which is able to capture seasonality, low-frequency dynamics of futures and the extreme spikes of the spot prices in the market. A non-stationary independent increments process is introduced for the low-frequency dynamics, and the large fluctuations are modeled by a stable CARMA process. We look at a first estimation procedure, where we fit the components of the model step by step. Then we suggest a Bayesian approach to fit the model to data. The procedure is applied to base load and peak load data from the European electricity exchange EEX.