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Learning to forecast: Genetic algorithms and experiments

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Tomasz Aleksander Makarewicz

Learning to Forecast: Genetic Algorithms and Experiments

The central question that this thesis addresses is how economic agents learn to form price expectations, which are a crucial element of macroeconomic and financial models. The thesis applies a Genetic Algorithms model of learning to previous laboratory experiments, explaining the observed heterogeneity of individual forecasting behavior. It also studies the effect of information networks in this model, showing that information sharing may lead to more volatile price dynamics. Finally, the thesis reports on an experiment in which subjects either trade an asset or predict its price. The former turns out to be more difficult for the subjects than the forecasting task, which leads to repeated price bubbles.



Tomasz A. Makarewicz (1984) holds a MA degree in economics and philosophy from Warsaw University and a MSc degree in economics from the Tinbergen Institute. In 2011 he joined the Center for Nonlinear Dynamics in Economics and Finance to write his PhD thesis. His main interests are individual learning and heterogeneous price expectations in experiments and agent-based models.

Learning to Forecast: Genetic Algorithms and Experiments

Tomasz Aleksander Makarewicz



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GENETIC ALGORITHMS
AND EXPERIMENTS

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