### INFORMATION CONTENT

- Linear regression.
- Combination of dynamic focus and naive price adjustment.
- Information shares (IS) price discovery model.
- Permanent-Transitory (PT) price discovery model.

## TRADING STRATEGIES

- Reinforcement learning.
- Inverse reinforcement learning.
- Expert system where the expert vote.
- $\bullet$  Evolution of liquidity simulation.
- Heterogeneous beliefs:
- fundamentalist and chartist analysis.

  Grammar-based approach.

# MODELING AND REPRESENTING

Techniques used to

explore

categories

- Markov process for reducing the number of parameters.
- Kalman filters.
- Order book slope.Quotes' price clustering.
- Modeling based on financial economic methods.
- Modeling based on econophysics methods.

#### DYNAMICS

- Whole book content.
- Best quotes and volume at different prices.
- Forecasting price change and the direction of such change addressed separately.
- Changes in order book shape, analyzing transaction aggressiveness.
- Markov process and a re-scaling procedure.

# ORDER PLACEMENT

- Price change point quickest detection.
- Modeling limit price distribution using a gamma distribution.
- Constrained utility maximization problem over a finite time horizon.
- Rolling ordered probit model.