

Automated Market-Making

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Introduction

- How do financial markets work? (at the level of individual participants)
- How can we model the behaviour of these participants?
- Results on the optimal behaviour of a dealer
- Results on the statistical properties of the limit orderbook

Main Body

- Orderbooks & liquidity
- Market making
- Stochastic control
- Avellaneda & Stoikov
- “Econophysics”

Conclusion

- Under a few (potentially unrealistic) assumptions, it is possible to determine what the optimal dealer strategy should be
- No one model for all markets
- Still very much an open field of study bringing together ideas from maths, stats, physics, computer science and economics

Thank you for your attention!

Questions?

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