

# Automated Market-Making

Supervised by Professor Nick Whiteley

Joshua Acton

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# Introduction

- How do financial markets work? (at the level of individual participants)
- The Avellaneda-Stoikov Model
- Results on the statistical properties of the limit orderbook

# What is a market?

# Market participants

# The limit orderbook

# Risks to the dealer

# Modelling dealer behavior

# The Avellaneda-Stoikov model



# Statistical properties of the limit order book

# 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?

email: `josh.acton.2021@bristol.ac.uk`