



# Risk and Predictability - Where Might Modern Mathematics Take Me?

Offer-holder Visit Day, March 2020

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# Welcome to the offer-holders open day

Offer-holders for 3 degree courses:

- Data Science
- Mathematics and Statistics
- MORSE

... and parents or other accompanying persons!

# The purpose of today

A varied programme of events, which we hope will:

- Inform you.
- Inspire you.
- **Help you** to make the decision that is right for **you** about which university offer to accept.

# Schedule

- 11:00-11:50 Talk | Risk and Predictability | Where Might Modern Mathematics Take Me?" Opportunity for questions.
- 12:00-13:00 Lunch  
Information about Careers, Funding, Admissions and Wellbeing.
- 13:00-13:45 Talk "How to solve it? Examples from STEP and A-level papers", Opportunity for questions.
- 14:00-15:30 Campus tour led by current students / Small group meetings with academic staff
- 15:30- Tea, and more information

# Where might modern mathematics take me?

Some things to know:

- Mathematics - and especially Statistics - becomes much more interesting at university level.
- The demand for well-rounded maths graduates remains absolutely **buoyant**, everywhere in the world.
- Demand for **our** kind of maths, especially so!

*Our kind of maths?* Probability, statistics, operational research, mathematical finance, machine learning...

These are the most **sought after** areas of mathematics in the world at large.

In this talk we mention just a few of the exciting application areas for modern mathematics.

# Destinations of our recent graduates

A wide range of:

- management consultancy
- investment banking
- medical, social or economic research
- academia
- market research
- 'big data' in commerce, science, government, . . .
- insurance and actuarial work
- software engineering
- engineering consultancy
- sport, entertainment

More details on employment statistics and careers in the flyer in your pack

# Some recent student projects

- Forecasting Sleep Apnea
- Portfolio Management Under Uncertainty
- Evaluating changes in attitudes experience and accident risk in novice drivers
- Comparison of population based Monte Carlo methods
- Mobile Health Analysis
- Statistical inference of stochastic differential equations
- Game-theoretic modelling of cybersecurity
- Erdos-Kac theory and Mod-Poisson convergence
- Exponential random graphs modelling
- On the complexity and behaviour of crypto currencies compared to other markets