WILLIAM FORD

Full Name: William Henry Ford
Born: 22nd May 2002, Penrith, Cumbria, England.
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Languages: English (Native), French (Level B2 CEFR), German (Level A2 CEFR).

RESEARCH INTERESTS

Optimal Transport, Mean Field Games, Calculus of Variations, Optimal Control, PDEs, Optimisation.

EDUCATION

Ècole Polytechnique/Paris-Saclay M2 Optimisation: In Progress *2024 – 2025*

2nd year master programme focusing on theoretical aspects of optimisation (convex/nonsmooth analysis and optimisation), their connection with PDEs (Calculus of variations, Elliptic PDEs, optimal transport/control) and their connections/applications within game theory (classical game theory, mean field games).

Durham University MSc Mathematics: First Class Honours – 89% *2023 – 2024*

1 year master programme at the intersection of analysis and probability, taking modules Functional analysis, PDEs, Stochastic Analysis, Ergodic Theory, Probability and Percolation theory and Combinatorics.

Thesis: "*Partial regularity for optimal transport maps between uniform measures*"
Supervisor: *Dr Alpár Mészáros*

Durham University BSc Mathematics: First Class Honours – 82% *2020 – 2023*

Averaged 85%, 80% and 84% in each year, and was awarded the Norton Prize in my 1st year for outstanding performance. Covered analysis, algebra, probability and statistics, attaining first class marks in all modules.

Thesis: *"Normal families in complex analysis"*
Supervisor: *Dr Wilhelm Klingenberg*

Queen Elizabeth Grammar School Penrith *2013 – 2020*

AWARDS AND SCHOLARSHIPS

2024	€11 000 Sophie Germain M2 Scholarship, Fondation Mathématique Jacques Hadamard.
2024	PhD Track excellence program and 4 year PhD/M2 scholarship, Institut Polytechnique de Paris.
2021	Norton Prize for outstanding performance in science, Durham University.

TEACHING EXPERIENCE

Undergraduate Tutor and Teaching Assistant | Durham University *2023 – 2024*

- lead weekly undergraduate tutorials for two classes of 13 Calculus I students
- marked biweekly assignments for 7 Linear Algebra/Calculus tutorial groups
- provide students with a platform to ask questions and further their understanding

Mathematics Tutor | MyTutor.co.uk *2021 – 2023*

- tutored struggling GCSE and A-level maths students in both 3 to 1 and 1 to 1 settings
- helped develop students problem solving skills and confidence approaching unseen material
- focused on building intuition for difficult topics rather than memorisation of techniques

REFERENCES

Available on request