Torin Fastnedge

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Academic

2022 -   **DPhil Applied Mathematics**, *University of Oxford*
Thesis title: *Mathematical modelling of microfibre release by washing machines*
Supervisors: Prof. Chris J. W. Breward, Prof. Ian M. Griffiths
Industrial collaborators: Beko plc (Arçelik)

2018 - 2022   **MSci Mathematics**, *University of Birmingham*
Final grade: First Class, with 86.3%, highest in cohort
Thesis title: *Mathematical modelling of rotary jet spinning for biomedical applications*
Supervisor: Dr Jamal Uddin

Teaching

2025   **Lecturer**, *Mansfield College, University of Oxford*
Non-stipendiary lecturer for 1st-year Dynamics

2024   **Lecturer**, *Mansfield College, University of Oxford*
Undergraduate admissions interviewer
Non-stipendiary lecturer for several courses:
1st-year Dynamics, 2nd-year Differential Equations 1 and 2nd-year Calculus of Variations

2024   **Teaching Assistant**, *Mathematical Institute, University of Oxford*
MMSC course, Further Partial Differential Equations

2023   **Lecturer**, *Mansfield College, University of Oxford*
Non-stipendiary lecturer for 2nd-year Differential Equations 1

2022   **Teaching Assistant**, *Mathematical Institute, University of Oxford*
Two sets of the 3rd-year course, Viscous Flows

Conferences and Events

2024   American Physical Society, Division of Fluid Dynamics (Salt Lake City, UT), Nov. 24 - 26; **presentation**
European Study Group in Industry 180 (Birmingham), Jun. 24 - 28; **presentation**
British Applied Mathematics Colloquium (Newcastle), Apr. 9 - 11; **presentation**

2023   European Study Group in Industry 171 (Edinburgh), Jul. 17 - 21; **presentation**
Graduate Modelling Camp (Cambridge), Jul. 10 - 14; **presentation**
Separation Science Workshop (Oxford), Jun. 28 - 30
InFoMM Annual Meeting (Oxford), Jun. 26; **presentation**
SIAM National Conference (Oxford), Jun. 1 - 2
British Applied Mathematics Colloquium (Bristol), Apr. 3 - 5
Perspective on the Interface of Mathematics and Environmental Engineering (Oxford), Mar. 29; **presentation**

Publications

2025   **Fastnedge, T.**, Breward, C. J. W., Griffiths, I. M., ———, In preparation to submit to Journal of Fluid Mechanics

2024   Breward, C., Hall, E., Icardi, M., Lacey, A., Lee W. L., Luckins, E., Meyer, K. Shirely, M. & Smith, A., *Oral Processing of Chocolate*, Mathematics in Industry Reports, https://doi.org/10.33774/miir-2024-n0tb4
Team member

2023   Acila, T., Aggarwal, A., Durey, M., **Fastnedge, T.**, Herale, A., Hicks, P. D., Kowal, K. N., Lee W. L., Moore, M. R., & Purvis, R., *Pulsatile flow for enhanced blood filtration in dialysis*, Mathematics in Industry Reports, https://doi.org/10.33774/miir-2024-pvx0q

Press

2023   Bernard, C. J., **Fastnedge, T.**, Griffiths, I. M., Luckins, E. & Wey, A., *Mathematical modelling of cleaning*, European Consortium for Mathematics in Industry, Annual Report 2022, https://ecmiindmath.org/wp-content/uploads/2023/11/ecmiannrep2022.pdf

2023   Bernard, C. J., **Fastnedge, T.**, Griffiths, I. M., Luckins, E. & Wey, A., *Mathematical modelling of cleaning*, Mathematical Institute, Univerisity of Oxford, Case Study, https://www.maths.ox.ac.uk/node/65062/

2023   **Fastnedge, T.**, Bernard, C. J. & Griffiths, I. M., *Mathematical modelling of washing machines and tumble dryers*, European Consortium for Mathematics in Industry, Case Study, https://ecmiindmath.org/2023/07/14/mathematical-modelling-of-washing-machines-and-tumble-dryers/

Academic experience

2024 -   **Filtration Advisory Board**, *University of Oxford*
Biannually discussion meetings with filtration companies

2024   **Exam Script Checking**, *University of Oxford*
Exam script checker for the Mathematical Institute, Jul. 3

Awards and Prizes

2022 -   **University of Oxford**
Smith Institute, TakeAim Finalist (2024 and 2025)

2018 - 2022   **University of Birmingham**
Corbett Prize (2022)
IMA Prize (2022)
Nora Calderwood Prize (2019)

Memberships

2024 -   Graduate Member of the American Physical Society

2022 -   Associate Member of the Society for Industrial and Applied Mathematics
Associate Member of the Institute of Mathematics and its Applications

2022 - 2023   Associate Member of the London Mathematical Society