

Freddie Witherden

Curriculum Vitæ

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Education

- 2016– **Postdoctoral scholar**, *Department of Aeronautics & Astronautics, Stanford University, USA.*
 - Advisor: Prof. Antony Jameson.
- 2015–2016 **Postdoctoral scholar**, *Department of Aeronautics, Imperial College London, UK.*
 - Advisor: Dr Peter Vincent.
- 2012–2015 **PhD**, *Department of Aeronautics, Imperial College London, UK.*
 - Advisors: Dr Peter Vincent and Prof. Spencer Sherwin.
 - Title: On the Development and Implementation of High-Order Flux Reconstruction Schemes for Computational Fluid Dynamics.
- 2008–2012 **MSci Physics with Theoretical Physics**, *Department of Physics, Imperial College London, UK.*
 - First-class honours.

Experience

- 2014– **Partner at Quadrature Solutions LLP.**

Founding partner of computational science and engineering consultancy partnership Quadrature Solutions.
- 2012–2015 **Director of newsflo ltd.**

Co-founder and CTO of news analytics firm newsflo. In January of 2015 we were acquired by Elsevier.

Selected Publications

- 2015 **F. D. Witherden**, B. C. Vermeire, and P. E. Vincent,
Heterogeneous computing on mixed unstructured grids with PyFR.
Computers & Fluids, 120, 173–186.
- 2015 **F. D. Witherden** and P. E. Vincent,
On the Identification of Symmetric Quadrature Rules for Finite Element Methods.
Computers & Mathematics with Applications, 69(10), 1232–1241.

- 2014 **F. D. Witherden**, A. M. Farrington, and P. E. Vincent,
PyFR: An Open Source Framework for Solving Advection-Diffusion Type Problems on Streaming Architectures using the Flux Reconstruction Approach.
Computer Physics Communications, 185(11), 3028–3040.
- 2014 **F. D. Witherden** and P. E. Vincent,
An Analysis of Solution Point Coordinates for Flux Reconstruction Schemes on Triangular Elements.
Journal of Scientific Computing, 61(2), 398–423.

Teaching

- 2012–2014 Introduction to Computing for Aeronautics MSc students.
2012–2015 Postgraduate Fortran.
2012–2015 Undergraduate MATLAB for 1st year Aeronautics students.

Achievements

- 2010 Dr Richard Learner Prize for the top student in second year Physics laboratory.

Interests

- Forensics Have conducted extensive research in the field of volatile memory forensics. Author of the widely-used software library libforensic1394.
- Software Active contributor to various free software projects since 2006.

References

References are available on request.