Scott Morgan

51 Gregory Close, Pencoed, Bridgend, CF35 6RF

+44 7725 131355 • scott.morgan3142@gmail.com
scott3142.github.io

A dedicated and committed individual with a strong passion for education, teaching and learning.

Education

Academic Qualifications

- **Cardiff University**
  PhD Mathematics: In Progess *2014–Present*
- **Cardiff University**
  MMath Mathematics: First Class Honours *2010–2014*
- **Pencoed Comprehensive School**
  A levels: Mathematics (A), Further Mathematics (A), Physics (A), French (A), Spanish (A)* *2008–2010*

Research Projects

- **PhD Thesis (In Progress):** *Stability of Oscillatory Rotating Disk Boundary Layers*
  Supervisor: Dr. Chris Davies
  Synopsis: To investigate the stabilising effects of adding modulation to a rotating disk boundary layer.
- **MMath Thesis:** *Topics in Oscillatory Flow*
  Supervisor: Dr. Chris Davies
  Synopsis: To investigate the connection between the local and global stability analyses of an oscillatory Stokes layer.
- **Undergraduate Project (CUROP):** *Boundary Layer Flows with an Oscillatory Rotation Rate*
  Supervisor: Dr. Chris Davies
  Synopsis: To develop an efficient numerical algorithm for solving a system of nonlinear time-dependent differential equations.

Academic Awards

- **Recognition for Outstanding Contribution (2017)** - *Society for Industrial and Applied Mathematics*
- **Best in School Prize (2014)** - *Cardiff University*
- **Second Year Prize (2013)** - *Cardiff University*
- **First Year Prize (2012)** - *Cardiff University*
- **Calculus Prize (2011)** - *Cardiff University*
- **Headteacher's Award (2010)** - *Pencoed Comprehensive School*

Notable Contributions

- **Cardiff SIAM-IMA Student Chapter President** *(2015-2017)*
  - **May 2016** - Organised and hosted the SIAM National Student Chapter Conference at Cardiff University. Responsible for arranging programme, lunch and inviting speakers. Over 50 attendees and consisted of parallel student sessions together with plenary talks.
  - **August 2016** - Oversaw re-branding of new SIAM-IMA Student Chapter from SIAM Chapter after securing funding from the IMA.
  - **October 2016 - Present** - Arranged highly successful, weekly *popular science* talks delivered by and to postgraduate students.
  - **April 2017** - Organised *3-minute thesis* competition for postgraduate students. Responsible for organisation, lunch and prizes. Attended by 20 students.
  - **June 2017** - Organised several workshop sessions including robotics, 3D printing and Raspberry Pi for FE College students at the University. Secured funding from the IMA via an Education Grant and from the University's Widening Access Fund. Event took place over one day and was attended by over 75 students and staff.
- **Lead Instructor on Final-Year MATLAB Course** *(2017)*
  - Devised, composed and delivered an 11-week intensive course titled *An Introduction to MATLAB* to final-year undergraduates and postgraduates. Responsible for all aspects of the course.
- **Picademy Attendee** *(2017)*
  - Successful application to attend two-day course on using Raspberry Pi computers for education. Active member of the Raspberry Pi community and have contributed to educational resources which have been actively used in schools and colleges in England and Wales.
- **Student-Staff Panel Undergraduate Representative** *(2010-2011)*
  - Involved in policy and decision-making for the department as an undergraduate. Representative for 170 students.

Professional Experience

- **Cardiff University**
  Postgraduate Demonstator *October 2014–Present*
  - Led weekly classroom based tutorial sessions on a wide variety of topics including Calculus, Group Theory, Analysis, Differential Equations and Computing.
  - Instructor in weekly drop-in sessions, handling a wide range of mathematics-based queries from students in many fields including Engineering, Physics, Economics, Biology and Chemistry.
- **Bridgend College**
  Computing Advisor and Associate Lecturer *September 2016–Present*
  - Devised, composed and delivered curriculum for BTEC Level 2/3 modules in App Development, Computational Thinking and Networking.
  - Delivered training sessions to staff at Bridgend College using Raspberry Pi and Python.
  - Engaged with students via classes and workshops and provided technical assistance with teaching and project based modules.
  - Worked closely with PiCymru and participated in regional and national events such as the Urdd Eisteddfod, World Skills Cymru and STEM fairs to showcase projects to local schools and businesses.

Funding Received

- **EPSRC Postgraduate Research Studentship** *(2014-2018)*
  £13,863 p/a (3.5 years)
- **SIAM Student Travel Award** *(2017)*
  $800
- **ERCOFTAC PhD Scholarship for Conference Attendance** *(2017)*
  €220
- **SIAM Student Representative Award** *(2016)*
  $700
- **Cardiff Undergraduate Research Opportunities Program (CUROP)** *(2013)*
  £1600 (8 weeks)
- **IMA Education Grant** *(on behalf of SIAM-IMA Student Chapter) (2017)*
  £400
- **Cardiff University Widening Access Grant** *(on behalf of SIAM-IMA Student Chapter) (2017)*
  £300

Conferences & Workshops

- **Hosted:**
  - SIAM-IMA Chapter *Full STEAM Ahead* Workshops - *Cardiff University (2017)*
  - 5th SIAM National Student Chapter Conference - *Cardiff University (2016)*
- **Contributed Talk:**
  - SIAM Annual Meeting - *Pittsburgh (2017)*
  - ERCOFTAC SIG33 Workshop on Progress in Flow Instability, Transition and Control - *Siena (2017)*
  - 6th SIAM National Student Chapter Conference - *Galway (2017)*
  - Welsh Mathematics Colloquium - *Gregynog (2017)*
  - 5th SIAM National Student Chapter Conference - *Cardiff University (2016)*
  - Welsh Mathematics Colloquium - *Gregynog (2016)*
  - Applied Mathematics Research Workshop - *Cardiff University (2015)*
- **Contributed Poster:**
  - 5th SIAM National Student Chapter Conference - *Cardiff University (2016)*
  - SIAM UKIE 20th Annual Meeting 2016 - *University of Cambridge (2016)*
- **Attended**:
  - Initial Meeting of UKFN SIG on Complex Boundary Layers & Rotating Flows - *Cambridge (2017)*
  - DiPaRT - *Bristol (2016)*
  - Fortran Modernisation Workshop - *Warrington (2016)*
  - SIAM Annual Meeting - *Boston (2016)*
  - Welsh Mathematics Colloquium - *Gregynog (2015)*
  - SIAM Student Chapter Conference - *Cardiff University (2015)*
  - 4th Joint BAMC & BMC - *University of Cambridge (2015)*
  - BAMC - *Cardiff University (2014)*

Technical Skills

- **Programming & Software:**
  - Proficient in: MATLAB, Fortran, Python, TeX, HTML, PHP, CSS, git
  - Basic ability with: Mathematica, C++, JavaScript, bash
- **Other:**
  - Excellent oral and written communication skills from extensive report writing and discussion of my work with a large variety of people.
  - Strong interpersonal skills due to extensive teaching experience.
  - Highly developed organisational skills acquired from organising conferences and student events.

References

- Available on request