

Scott Morgan

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

Education

Academic Qualifications.....

- **Cardiff University**
PhD Mathematics: In Progress 2014–Present
- **Cardiff University**
MMath Mathematics: First Class Honours, Best in School 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.....

- **Founding member of UKFN SIG on boundary layers and complex rotating flows (2017)**
- **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.
- **Raspberry Pi Certified Educator (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.

Professional Experience

- **Cardiff University**
 - *Postgraduate Demonstrator* *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 units for BTEC Levels 2-4 modules in Automated Systems, Control Systems and Website Design and Development.
 - 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 UKIE Student Travel Award (2019)**
£80
- **SIAM Student Travel Award (2017)**
\$800
- **ERCOTAC 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)*
- **Invited Talk:**
 - Department of Engineering Seminar Series - *Leicester (2017)*
- **Contributed Talk:**
 - DiPaRT - *Bristol (2017)*
 - UKFN SIG: Boundary layers and complex rotating flows - *Warwick (2017)*
 - SIAM Annual Meeting - *Pittsburgh (2017)*
 - ERCOTAC 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:**
 - SIAM UKIE Annual Meeting - *University of Southampton (2018)*
 - SIAM UKIE 20th Annual Meeting - *University of Cambridge (2016)*
- **Workshops Attended:**
 - Research Software Development Workshop - *Cardiff University (2018)*
 - Fortran Modernisation Workshop - *Warrington (2016)*