

PERSONAL INFORMATION

Philip James Andrew Townsend

 Park Camp House

PO Box 1000

Brighton BN1 9QJ

United Kingdom

Enter 10

 01323 553111

 P.J.A.Townsend@sussex.ac.uk

Sex: - Date of birth: 10/04/1991 Nationality: British

POSITION **PhD student at University of Sussex**

WORK EXPERIENCE

2013 - 2017 **Associate tutor**

University of Sussex, Brighton, United Kingdom

- Providing assistance to students during workshops
- Providing assistance to students that required additional help in one-to-one sessions
- Marking and providing feedback on submitted homework
- Assisting students during computing classes in writing and debugging code

Business or sector Education

July 2007 - September 2007

Sales Assistant

Brighton Canoes Ltd., Newhaven, United Kingdom

- Interacting with customers
- Processing orders via person and online
- Maintaining records and invoice slips
- Keeping track of deliveries

Business or sector Leisure

May 2006

Work experience intern

Swindells and Gentry, Seaford, United Kingdom

- Inputting accounts data into the computer
- Analysing accounts data to provide insight for future planning
- Checking calculations for numerical errors
- Compiling and writing account reports

Business or sector Financial services

EDUCATION AND TRAINING

2009 - 2013

MMath (First Class Honours)

Level 7

University of Sussex, Brighton, United Kingdom

- 4 years of study, 60 ECTS credits per year; topics covered:
 - Numerical analysis
 - Probability
 - Computer simulation
 - Financial mathematics
- MMath thesis: *Computational aspects of stochastic differential equations*

2007 - 2009

A Levels

Level 4

Seaford Head Community College, Seaford, United Kingdom

- Business studies
- Further Mathematics
- Mathematics
- Physics

2002 - 2007

GCSEs

Seaford Head Community College, Seaford, United Kingdom

- Biology
- Business and Communication
- Business studies
- Chemistry
- English language
- English literature
- German
- History
- Mathematics
- Physics
- Religious studies

PERSONAL SKILLS

Mother tongue(s) English

Communication skills During my studies, I have gained good proficiency in presenting my research to others in a clear and understandable manner; this includes both giving an oral presentation to a large group and presenting a poster on my research. I am also adept at compiling data and writing reports on the results, skills I have improved upon whilst interning for a local flood risk company.

Organisational / managerial skills I have good organisational skills, ensuring I can manage my workload efficiently and keep to relevant deadlines. During my internship at a local flood risk company, I was involved in a number of team projects, which required good management of the tasks I was assigned and meeting both personal and overall project deadlines.

Digital competence

SELF-ASSESSMENT

Information processing	Communication	Content creation	Safety	Problem solving
Proficient	Proficient	Independent	Independent	Proficient

I have extensive experience of writing computer code in multiple programming languages, including C, C++, Python, and Matlab.

ADDITIONAL INFORMATION

- Publications M. Ersoy, O. Lakkis, and P. Townsend. *A Saint-Venant model for overland flows with precipitation and recharge* (2017). Preprint available. [Major contributor]
- O. Lakkis and P. Townsend. *A multilevel approach to simulation of the shallow water system with precipitation*. In preparation. [Lead contributor]
- O. Lakkis and P. Townsend. *A multilevel approach to simulation of a coupled shallow-water/weather generator system*. In preparation. [Lead contributor]

Please note that the authors for all three papers are listed alphabetically.

Research statement My current research is focused on how we can model river flooding and the resultant inundation that occurs as a result of high-intensity rainfall events. Stochastic modelling, through both random processes and stochastic differential equations, is used to accurately represent the occurrence of rainstorms, which are then coupled with hyperbolic conservation and balance laws to model the river flow.

- Presentations During my studies I have given presentations of my research at the following conferences:
- International Conference on Computational Methods, 2014, University of Cambridge
 - 26th Biennial Numerical Analysis Conference, 2015, University of Strathclyde
 - PhD conference, 2017, University of Sussex

I have also given a presentation of my work at a seminar during a research visit to the Universite de Toulon, October 2016.

- Conferences
- 2014
- LMS-EPSC Durham Research Symposium (University of Durham, 8th - 16th July)
 - International Conference on Computational Methods (University of Cambridge, 28th - 30th July)
 - Zurich summer school (Zurich, 18th - 22nd August)
 - PDE Conference (University of Sussex, 15th - 17th September)
- 2015
- CliMathNet (University of Bath, 6th - 10th July)
 - 26th Biennial Numerical Analysis Conference (University of Strathclyde, 23rd - 26th June)
- 2016
- EGU General Assembly (Vienna, 17th - 22nd April)
 - PhD conference (University of Sussex, 3rd May)
 - CliMathNet (University of Exeter, 5th - 8th July)
 - Rain, Rivers, and Reservoirs (Heriot-Watt University, 27th - 29th September)
- 2017
- NAPDE conference (University of Warwick, 3rd - 7th April)
 - PhD conference (University of Sussex, 20th April)
- Honours and awards
- 1st prize at Sussex PhD conference, 2017
 - 2nd prize at Sussex PhD conference, 2016
 - Hirschfeld prize for maths undergraduates, 2013

ANNEXES

- Transcript and European Diploma Supplement
- Copy of identity card
- Letters of recommendation