Registration and Contacts

Registration fee

The registration fee is just £90 (we have tried to keep costs to a minimum and please note all fees will be used to cover the cost of the workshop).

This fee covers attendance for both days, **lunches and refreshments on both days, and dinner on the Monday evening**.

Deadline

Deadline for booking is **Friday 20th June**.

To book your place please see the booking page at:

`mathsevents.cf.ac.uk/mathedworkshop`.

Contacts

For further information please don't hesitate to get in touch with the organisers:

Paul Harper: `harper@cf.ac.uk`
Vince Knight: `knightva@cf.ac.uk`
Rob Wilson: `wilsonrh@cf.ac.uk`

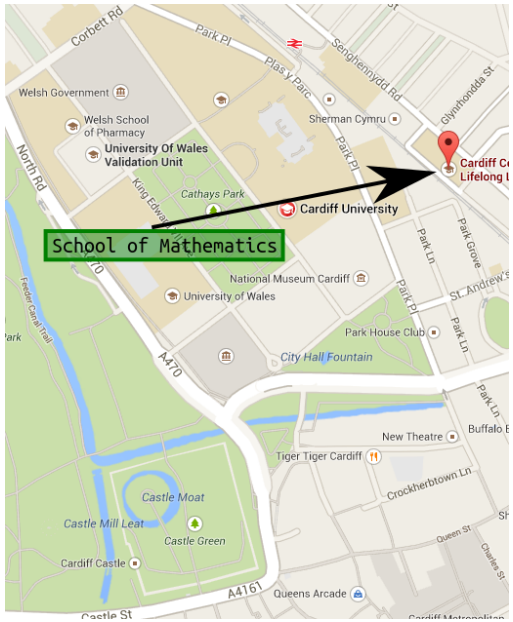
Speakers and Location

Speakers

- Toby Bailey (Edinburgh),
- Dana Ernst (Northern Arizona),
- TJ Hitchman (Northern Iowa),
- Vince Knight (Cardiff),
- Steve Rutherford (Cardiff),
- Chris Sangwin (Loughborough),
- Robert Talbert (Grand Valley State University, Michigan)

Location

The workshop will take place in the School of Mathematics, Cardiff University, CF24 4AG.



`mathsevents.cf.ac.uk/mathedworkshop`

Workshop on Innovations in University Mathematics Teaching
7th to 8th July 2014

Cardiff University

Flipped Classroom **and** Inquiry Based Learning

`mathsevents.cf.ac.uk/mathedworkshop`

CARDIFF UNIVERSITY
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Description

This 2-day workshop will introduce delegates to innovative approaches to teaching mathematics in university settings. In particular there will be masterclasses on two methods: inquiry based learning and flipped classrooms, combined with plenty of opportunities for delegates to experience these methods in practice and reflect on ways in which they might be embedded within their own teaching. We are delighted to have expert speakers from the UK and US share with us how they are using such methods within their own teaching.

Inquiry based learning focuses attention on the student's role in making sense of mathematical ideas for himself or herself, and communicating those ideas clearly to peers. Students are given tasks requiring them to solve problems, conjecture, experiment, explore, create, and communicate... all those wonderful skills and habits of mind that Mathematicians engage in regularly. Rather than showing facts or a clear, smooth path to a solution, the instructor guides and mentors students via well-crafted problems through an adventure in mathematical discovery.

A flipped classroom is a model in which students gain first-exposure learning prior to class and focus on the processing part of learning (synthesizing, analyzing, problem-solving, etc.) in class. It aims to modify the locus of content delivery so as to ensure that contact time is student centered. This methodology often makes use of modern technological tools but does not require them.

Schedule

7th of July

Session 1

10.20 - 10.30 : *Welcome and introduction* (Paul Harper)
10.30 - 11.30 : *Flipping the University Mathematics Classroom: A Gateway to Lifelong Learning* (Robert Talbert)
11.30 - 12.00: *Using a Flipped Classroom in a Large Programming Course for Mathematicians* (Vince Knight)
12.00 - 12.30 : *TBC* (Toby Bailey)

Lunch (12.30 - 13.15)

Session 2

13.15 - 13.45 : *TBC* (Chris Sangwen)
13.45 - 14.15 : *TBC* (Steve Rutherford)
14.15 - 14.45 : *Panel discussion on flipped classrooms*

Session 3

15.00 - 16.30 : *Inquiry-Based Education in Mathematics: Models, Methods, and Effectiveness for Higher Education (Part 1)* (Theron Hitchman & Dana Ernst)

Workshop dinner (from 19.00)

Schedule

8th of July

Session 4

09.30 - 13.00 : *Inquiry-Based Education in Mathematics: Models, Methods, and Effectiveness for Higher Education (Part 2)* (Theron Hitchman & Dana Ernst)

Lunch (13.00 - 13.45)

13.45 - 15.15: *Teaching Cafe: encouraging delegates to discuss how some of the methodologies presented could be used in their own classes.*

15.15 : *Closing remarks*