Higher Education Teaching and Learning Series 24/25

IMS, RSS & LMS Higher Education Teaching and Learning Workshop Series 2025

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**Rethinking Teaching and Learning in The Mathematical Sciences in Times of Generative AI**

We are waiting for you to join us this summer in Edinburgh!



## 1 Overview

After having the storm of Generative AI (Gen-AI), like ChatGPT, higher education (HE) system started to discuss possibilities and challenges since 2023. Whilst these tools provide transformative results, we must ensure that students are using them critically for their teaching and learning process. As mentioned in various reports and projections, as higher education institutions, we should help them to be prepared for work life after their study, but it is vital that those tools are used as help rather than bypassing the learning process. There is an ongoing debate on using such tools for teaching or not, with various strategies or plans applied so far. The course level/content sensitivity is varying with such tools, ie., proof-based mathematics vs. programming modules. Mainly, it is urgent to reconsider the teaching and learning under the huge pressure of Gen-AI-based tools and their high-speed development.

As Gen-AI becomes widespread, it is crucial to provide an enriched platform to share best practices and thought-provoking panel discussions among the HE institutions. The proposed workshop aims to address this critical challenge by bringing together a collection of educators and teaching practitioners from related fields of study, especially Mathematical Sciences / STEM.

We aim to stimulate discussions among teaching practitioners relying on their experiences. The University of Edinburgh, in collaboration with The University of Glasgow, will host this follow-up workshop to last year’s Glasgow event on rethinking assessment in times of Gen-AI, keeping momentum going on interesting discussions.

### 1.1 We want…

… to foster the discussion alongside the recent Gen-AI related improvements for the teaching and learning on mathematics education. Possible themes are below but not limited to

* Integrating AI Tools in Mathematical Education
* Ethical Considerations in AI-Driven Learning
* Personalized Learning Pathways with AI
* AI and the Evolution of Mathematical Problem Solving
* Instructor Roles in an AI-Augmented Classroom
* Assessing the Learning Outcomes in the Age of Gen-AI
* How to develop Critical Thinking and AI Literacy

## 2 Workshop Details

### 2.1 Organisers

This event organized by,

* Ozan Evkaya (University of Edinburgh)
* Jennifer Gaskel (University of Glasgow)
* Skarleth Carrales Escobedo (University of Edinburgh)
* Steven O’Hagan (University of Edinburgh)

For more details about this workshop, including registering your interest, please contact: [Ozan.Evkaya@ed.ac.uk](mailto:Ozan.Evkaya@ed.ac.uk).

### 2.2 Where?

This workshop will be held in Edinburgh, hosted by the University of Edinburgh

Venue: [Elm Lecture Theatre](https://information-services.ed.ac.uk/computing/audio-visual-multi-media/teaching-spaces/interactive-360-degree-images-of-teaching-spaces/nucleus/nucleus-g02-elmlt), Nucleus Building, The King’s Buildings campus, The University of Edinburgh, EH9 3FG

The Nucleus Building is a new shared learning, teaching and social hub at the heart of The King’s Buildings campus. See the location from the [Google map](https://www.google.com/maps/place/The+Nucleus+Building,+The+University+of+Edinburgh/@55.9228707,-3.1739974,15z/data=!4m6!3m5!1s0x4887c74db76c8ddd:0x30d53c72c9accbd8!8m2!3d55.9229639!4d-3.1739935!16s%2Fg%2F11sb86zt46?entry=ttu&g_ep=EgoyMDI1MDMzMS4wIKXMDSoJLDEwMjExNjQwSAFQAw%3D%3D)

### 2.3 When?

The event takes place on-site on **July 18, Friday, between 10.00-16.00**

### 2.4 How to participate?

Please reserve your seat until, **30th June 2025 Monday**. Please note that capacity is limited, so registration may stop before the deadline when all seats are taken!

See the registration form at your earliest convenience.

### 2.5 Tentative Schedule

| **Time** | **Session Details** |
| --- | --- |
| 10:00 - 10:15 | Welcome and Introduction |
| 10:15 - 11:00 | Main Speaker 1: Michael Grove – TBA |
| 11:00 - 11:30 | Lightning Talks Session 1 |
| 11:30 - 12:00 | Tea/Coffee Break |
| 12:00 - 12:45 | Main Speaker 2: Stuart King – TBA |
| 12:45 - 13:30 | Lunch Break (Will be served?) |
| 13:45 - 14:00 | Discussion Topic 1 |
| 14:00 - 14:30 | Lightning Talks Session 2 |
| 14:30 - 14:45 | Tea/Coffee Break |
| 14:45 - 15:00 | Discussion Topic 2 |
| 15:00 - 15:45 | Main Speaker 3: TBA (Subject to funding) |

15:45 - 16:00 | Closing Remarks / Call for next year’s Workshop Series topic discussion |

### 2.6 KeyNote Speakers

#### 2.6.1 [Michael Groove](https://www.birmingham.ac.uk/staff/profiles/maths/grove-michael)

Michael Grove is Deputy Pro-Vice-Chancellor for Education Policy and Academic Standards at the University of Birmingham, Professor of Mathematics and Mathematics Education, and a National Teaching Fellow.

Talk Title and Abstract: TBA

#### 2.6.2 [Stuart King](https://www.maths.ed.ac.uk/~sking3/index.html)

He is working at the School of Mathematics at the University of Edinburgh as a lecturer in Mathematics in 2015, as a member of the Applied and Computational Mathematics research group.

Talk Title and Abstract: TBA

#### 2.6.3 Speaker 3

Talk Title and Abstract: TBA

## 3 Higher Education Teaching and Learning Series 2025

### 3.1 Other events?

Please see the other events happening this year below;

| **Date** | **Event Title** | **Institution** |
| --- | --- | --- |
| **12 JUNE** | *Fostering Engagement and Learning in Mathematics in the Digital Age* | University of Central Lancashire |
| **4 JULY** | *Rethinking feedback and assessment: what does this mean in traditionally exam-based mathematics?* | Imperial College London |
| **10 JULY** | *Enhancing Student Community and Learning: Adapting Strategies for Changing Patterns of Student Engagement* | The Open University |
| **?? JULY** | *Automatic grading in mathematics and statistics: beyond the basics* | University of Liverpool |

## 4 Speaker Slides

Please see the keynote speaker slides and participant contributions from that list

### 4.1 KeyNote

* Michael Groove
* Stuart King
* Speaker 3

### 4.2 Lightning Talks

* Lightning Talk Speaker 1

## 5 Feedback and Further suggestions

Thank you for your participation! Please give us feedback regarding the workshop event and your further suggestions!

* Participation Survey

This workshop event is mainly funded and supported by;

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