CETL-MSOR Conference 2019

Abstract Submission Template

Contact details
All communication regarding your proposal will be made with the person whose details are provided here.

Name Mine Cetinkaya-Rundel

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Telephone

Type of session
Please indicate below the type of session you are proposing.

	✓
Presentation (*20 mins*)	x
Workshop session *(60 mins)*	
Lightning Session (3 mins)	

Theme of session
Please indicate the most appropriate theme to which your session relates.

Developing communities of learners in mathematics and statistics support within, and across, the disciplines.	
Teaching specialist mathematicians.	
Inclusive design for mathematics learning.	
Supporting students on the transition into and out of higher education.	
Other: Pedagogical design for introductory courses	x

Please upload to EasyChair in pdf form

Session title
Please indicate the title of your proposed session

Session title **Let them eat cake (first)!**

Presenters
Please list all presenters for the proposed session.

Full name(s)	*Name of Centre/organisation*	*Email address*
Mine Cetinkaya-Rundel	University of Edinburgh School of Maths	mcetinkay@ed.ac.uk

Session description/abstract
Please provide a description of your proposed session (in the third person). This should be no longer than 200 words. Please ensure you include:

- What the session is about
- The potential outcomes
- Why people should attend.

If successful, this description will be made available on the conference website and in the conference pack, so this is your chance to promote your session to colleagues.

Backwards design, designing educational curricula by setting goals before choosing instructional methods and forms of assessment, is a widely accepted approach to course development. In this talk we introduce a course design approach inspired by backwards design, where students are exposed to results and findings of a data analysis first and then learn about the building blocks of the methods and techniques used to arrive at these results. We present this approach in the context of an introductory data science course that focuses on exploratory data analysis, modeling, and effective communication, while requiring reproducibility and collaboration. The talk is organized in three parts (visualization, data acquisition, and modeling) and features examples of in class activities, details of the course curriculum, and sample student work.

Equipment requirements
The following equipment will be provided as standard: flipchart, computer and data projector, overhead projector and screen.

Please indicate here if you have any additional requirements:

Talk features a very brief audio component.

Please upload to EasyChair in pdf form

Availability

Please provide details of your availability for each day of the conference:

Date	Availability (✓)
5 September	x
6 September	x

Other information (optional)
Please provide any additional information that will help us evaluate your session.

While not primarily focused on inclusive design, many aspects of the talk will emphasize inclusivity concerns when designing curricula for introductory courses.

Please upload to EasyChair in pdf form: https://easychair.org/conferences/?conf=cetlmsor2019

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