



Calculus in upper secondary and beginning university mathematics

6 – 9 August 2019

University of Agder

Kristiansand, Norway

Conference website: [link to come]

First announcement

Calculus spans high school and beginning university mathematics and is, in many ways, the gateway to higher mathematics. This conference is designed as an opportunity for mathematics educators (curricula developers, researchers, practitioners and others) to take stock of where we are, to discuss important aspects of teaching and learning calculus and to leave the conference with plans for collaborative academic projects and/or papers on calculus related themes.

The conference has four themes:

- A. The school-university transition with a focus on calculus
- B. The fundamental theorem of calculus
- C. The use of digital technology in calculus
- D. Calculus, and its teaching and learning, for various disciplines

Structure of the conference

The conference will last four days. Days 1 and 2 will start with a plenary lecture and Day 3 with a plenary panel on *Research informed visions for calculus reform*. These plenary events will be followed by parallel Discussion Groups (DG) sessions. The afternoons will start with three parallel paper presentation sessions followed by DG sessions. On each day, one DG session will be available for people who wish to discuss issues relating to the plenary of the day. The other DG sessions will focus on issues relating to the learning and teaching of calculus, and associated with the conference themes (the exact foci will be decided after papers have been selected). Day 4 will be open also to participants attending for this day alone and we expect these to be mainly Norway-based graduate students, university lecturers and secondary school teachers. Day 4 will include parallel discussion groups on the conference themes, a DG report session and a closing session.

This is an invitation conference and there are three categories of participants:

- Full conference participants (invited on the basis of a selected paper or for a plenary event). Invitations will come from the conference chairs. See also *Call for Papers*.
- Norway-based participants who will receive an invitation before March 31, 2019.
- Day 4-only attendees. Invitations will follow from on-line registration for Day 4 which will open in May 2019.

Full conference participants will be invited to attend the conference on the basis of papers submitted. The lead author (or, possibly, a co-author) of the selected papers will be invited to register. Participants, other than those attending for Day 4 alone, will be expected to attend all four days of the conference (Tuesday – Friday). We therefore recommend that participants arrange arrival for Monday, 5 August and departure for Saturday 10 August. Information on accommodation options will be available at the conference website from [add date].

This conference is supported by [MatRIC](http://www.matric.no) (www.matric.no), the Centre for Research, Innovation and Coordination of Mathematics Teaching. MatRIC is a Centre for Excellence in Higher Education based at the University in Agder, Norway, and its financial support means that services and hospitality towards the conference will be provided without the need to charge a conference fee. Furthermore, if your paper is selected and you do not have the means to attend, the lead (or one) author of the paper will be able to apply for financial support. We note that participants from Norwegian higher education institutions will be able to apply to MatRIC to cover accommodation expenses.

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Call for papers

We invite you to submit a paper. Papers should centrally concern ideas directly related to some aspect of learning or teaching calculus. We are expecting ‘research papers’ but will interpret ‘research’ broadly as ‘disciplined inquiry’. We will select 27 papers from those submitted (there are 3 x 3 parallel presentations on each of the first 3 days of the conference) as these papers will form the bulk of the discussion at the conference. Criteria for selection are originality, scientific rigour and significance. The guidelines below specify a maximum of 4 pages using the template available at the website at [link to come]. This is short for a conference paper and you can use your creative powers to curtail some sections of the paper – when we select papers for inclusion we will be looking for the *big idea(s)* in your paper. You may bring a longer paper to the conference to accompany your presentation.

How to submit a paper

Please submit your paper at [link to come] between [date to come] and January 28, 2019. Note that, in order to access this page, you need to create an account and log in first. We request that you follow the guidance given for the format of your paper below. Following the review process, by March 15, 2019, you will receive a decision about whether your paper has been selected.

Please format your paper as follows:

- Write the paper in English using Times 12-point font, single spacing, and 6 points between paragraphs; occupying a frame of 170 by 247 mm. You must use the conference template [link to come].
- Restrict your paper to a maximum of four pages, including references, figures and appendices.
- Type and centre the title (in 16 point bold), author(s) name(s) (in 14 point bold), and affiliation(s) of author(s) (in 14 point italics) in this order; all in Times.
- Underline the name of the presenting author(s).
- Indicate up to five key-words for the paper.

Give references in the APA style, www.tandf.co.uk/journals/authors/style/reference/tf_A.pdf.

Once papers have been selected, the lead author will be invited to participate in the conference and will be able to register. The deadlines for papers are:

| | |
|------------------|---------------------------------------------------------------|
| 28 January, 2019 | Submission (through the conference website) |
| 15 March, 2019 | Author notified on the acceptance or rejection of their paper |

We look forward to your submissions and to a stimulating conference!

Tommy Dreyfus (Tel Aviv University, Israel; tommyd@tauex.tau.ac.il)

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Details on how to submit a paper are also at [link to come]