

First Announcement and Call for Papers of the Tenth ERME TOPIC CONFERENCE (ETC10)

on

Mathematics Education in the Digital Age (MEDA)

16-18 September 2020 in Linz, Austria

The fifth ERME Topic Conference for Mathematics Education in the Digital Age (MEDA), held in September 2018 in Copenhagen was inspired by the contributions to the Thematic Working Groups 15 and 16 in the CERME 10 in Dublin, which highlighted the diversity of current research and its overlaps with other TWG themes. It was an interdisciplinary, multifaceted collaboration that brought together participants who would normally attend a range of CERME Thematic Working Groups to provide the opportunity for further in-depth discussion and debate. The successful experience resulted with an intensive communication and collaboration during the Conference, which continued and carried on our collegial work towards a publication of a post-conference book in the ERME Series published at Routledge. Moreover, inspired by the contributions to the Thematic Working Groups 15 and 16 in the last CERME 11 in Utrecht, we would like to propose a second edition of the conference that will offer the opportunity for further in-depth discussion and debate. In particular, we foresee that the proposed conference will be of interest to the following TWGs:

TWG 18 Mathematics Teacher Education and Professional Development

TWG 22 Curricular Resources and Task Design in Mathematics Education

TWG 21 Assessment in Mathematics Education

TWG 17 Theoretical Perspectives and Approaches in Mathematics Education Research

Call for papers and poster proposals:

The International Programme Committee particularly welcomes theoretical, methodological, empirical or developmental papers (8 pages maximum¹) and poster proposals (2 pages) in relation to the following conference themes:

Theme 1: Mathematics teacher education and professional development in the digital age

Theme 2: Mathematics curriculum development and task design in the digital age

Theme 3: Assessment in mathematics education in the digital age

Theme 4: Theoretical perspectives and methodologies/approaches for researching mathematics education in the digital age

Theme 1 - Mathematics teacher education and professional development in the digital age

- The specific knowledge, skills and attributes required for efficient/effective mathematics teaching with digital resources, to include digital mathematics resources, which we define as *resources that afford or embed mathematical*

¹ If, especially young researchers, would like to send us a first draft with less than 8 pages, this is okay. The paper could be – if accepted – extended after the conference.

representations that teachers and learners can interact with by acting on objects in mathematical ways.

- The design and evaluation of mathematics teacher education and professional development programmes that embed the knowledge, skills and attributes to teach mathematics with digital resources.

Theme 2 - Mathematics curriculum development and task design in the digital age

- The design of resources and tasks (e.g. task features, design principles and typologies for e-textbooks);
- The evaluation and analysis of resources and tasks (e.g. determining quality criteria for curricular material, resources and methods of analysis);
- The interactions of teachers and students with digital curriculum materials (e.g. appropriation, amendment, re-design), both individually or collectively. This includes the consideration of teacher learning/professional development in their work with digital resources.

Theme 3 - Assessment in mathematics education in the digital age

- New possibilities of assessment (formative, summative, etc.) in mathematics education brought by digital technology
- Use of digital technology to support students to gain a better awareness of their own learning
- Assessment of learners' mathematical activity in digital environment

Theme 4 - Theoretical perspectives and methodologies/approaches for researching mathematics education in the digital age

- Theories for research on technology use in mathematics education (e.g. design theories, prescriptive theories, theories linking research and practice, theories addressing the transfer of learning arrangements to other learning conditions etc.)
- The linking of theoretical and methodological approaches and the identification of conditions for productive dialogue between theorists, within mathematics education and beyond (e.g. developing collaborative research with educationalists, including teachers and educational technologists).

The conference particularly welcomes contributions linking some of these three themes at any level of mathematics education: pre-school, primary, lower- and upper-secondary or tertiary. Papers and poster proposals must use the [MEDA2020 template](#).

Please, upload your paper or poster proposal on the [Submission webpage](#), providing the required information, in particular the intended MEDA Theme number.

Each paper will be peer-reviewed by two persons from among those who submit papers to the conference. The ICP will review posters. Please expect to review up to two papers yourself. The final decision about acceptance rests with the IPC.

Deadlines:

| | |
|---|-----------------------|
| Submissions of paper and poster proposals | March 01, 2020 |
| Submission of reviews | April 15, 2020 |
| Acceptance decisions | April 30, 2020 |
| Papers available online on the conference website | July 15, 2020 |

Members of the International Program Committee (IPC):

Chair of the IPC: Hans-Georg Weigand (Germany)

Co-chairs: Ana Donevska-Todorova (Germany/Macedonia)
Alison Clark-Wilson (UK)
Eleonora Faggiano (Italy)
Jana Trgalova (France)

Members: Andreas Eichler (Germany) – member of the ERME board
Ghislaine Gueudet (France) – member of the ERME board
Mariam Haspekian (France) - link with TWG 17 (CERME12)
Paola Iannone (UK) – link with TWG 21 (CERME12)
Birgit Pepin (Netherlands) – link with TWG 22 (CERME12)
Bärbel Barzel (Germany)
Annalisa Cusi (Italy)
Niels Grønbæk (Denmark)
Ornella Robutti (Italy)
Osama Swidan (Israel)
Michal Tabach (Israel)
Melih Turgut (Norway)

Members of the Local Organizing Committee (LOC):

Chairs of the LOC: Zsolt Lavicza (Austria)
Robert Weinhandl (Austria)

Members: Markus Hohenwarter (Austria)
Sara Hinterplattner (Austria)

Venue:

Place: Linz University, Austria
Time: 16 – 18 September 2020
Intended number of active contributions: 60

Plenary contributions:

- Paola Iannone: Assessment in mathematics education
- Birgit Pepin: Curricular resources and task design in mathematics education
- Mariam Haspekian: Theoretical perspectives

Additional information:

Support of expected young researcher participants

- We aim for 20% participation by early career researchers by encouraging experienced researchers to attend with a less-experienced colleague.

Possibilities to actively support and engage young researchers will be given in the Second Announcement.

Proceedings, Publication and Dissemination:

- Peer reviewed digital proceedings on the web page of the conference or on HAL Archive (<https://hal.archives-ouvertes.fr/>)
- The IPC will explore the following opportunities:
 - o An edited volume in the ERME series published by Routledge or a title for Springer.
 - o A special issue or selected contributions in ZDM or in the International Journal for Technology in Mathematics Education (IJTME).