

CERME 11: Thematic Working Group 06

Applications and Modelling

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Scope and focus of the Thematic Working Group

The working group TWG 6 takes on the importance of research and development in mathematical modelling and applications for the 21st century educational debate. The aim of TWG6 is to reflect on and discuss issues and themes concerned with mathematical modelling and applications at primary, secondary and tertiary school levels and teacher education.

Call for papers and poster proposals

In TWG6, we welcome theoretical, methodological and empirical research papers and poster proposals on the teaching and learning of applications and modelling. Of particular interest are proposals that address at least one of the following themes (but is not limited to):

- *Pedagogical:* e.g. pedagogical aims of modelling and applications; promotion of teachers and students modelling competencies; interdisciplinary approaches;
- *Epistemological:* e.g. conceptualizations of modelling; theoretical and methodological approaches to research into teaching and learning modelling;
- *Curricular:* e.g. barriers and levers introduced by curricula for the teaching of modelling; the balance between applications, modelling and other activities; mathematical modelling for the workplace;
- *Cognitive and Affective:* e.g. metacognition in modelling development; beliefs and attitudes of teachers and students towards applications and modelling;
- *Assessment:* e.g. formative and summative assessment practices with modelling activities in school and university; international student assessment;
- *Resources:* the role of ICT tools (e.g. CAS) and other resources (e.g. textbooks, books and other materials) in the teaching and learning of mathematical modelling;
- *Cross-cultural and cross-institutions:* cultural perspectives on modelling, comparative and international studies, transition issues concerning teaching modelling at different school levels.

Papers and poster proposals should use the CERME template, and conform to the guidelines at the [guidelines website](#). CERME 11 uses a [submission website](#). The authors submit the initial version of their paper on the website (uploading it both as a .doc and a .pdf file, and providing the required information, in particular the TWG number).

Reviews and decisions

Each paper will be peer-reviewed by two persons from among those who submit papers to this TWG. Please expect to be asked to review up to two papers yourself. The group leaders will decide about the acceptance of posters.

Important dates

- **15th July 2018:** Early bird submission (please refer to the [early bird website](#))
- **15th September 2018:** Initial submission by authors in the submission system.
- **3rd November 2018:** Initial decisions on papers and posters sent.
- **24th November 2018:** The authors submit a revised version if needed.
- **5th December 2018:** Final decisions sent.
- **12th December 2018:** Final version uploaded.
- **13th January 2019:** Papers available on CERME 11 website.