CERME 12: Thematic Working Group 4
GEOMETRY TEACHING AND LEARNING

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Scope and focus of the Working Group

The TWG is concerned with research on geometry teaching and learning from kindergarten to University, including teacher education.

At virtual pre-CERME12, after recalling the three general issues that emerged from discussions at previous CERMEs, two topics were discussed, *The specific aspects of mathematical activity in geometry* and *Teaching and learning geometry,* around some questions as "Which competences (visual, reasoning, operational, and figural) should students/pupils have acquired/developed at the end of a specific school level?", "Which is the impact of online teaching and learning geometry?" and "What geometry our students should know when they move from primary to secondary to tertiary education?". Crucial points highlighted by several contributions are the relevance of language from a very early age, the use of material and digital tools, and the focus on visualization, as in the previous CERMEs.

At CERME-12, we want to continue the discussions, the elements of which were presented on the platform for the virtual pre-CERME12. The "Geometry Teaching and Learning group" encourages a variety of theoretical and methodological approaches.

Call for papers and poster proposals

This TWG aims to address the two issues proposed for pre-CERME12:

1. The specific aspects of mathematical activity in geometry (instruments, language, reasoning, proof, etc.);

2. Teaching and learning geometry (curriculum, methodologies, tools, tasks, competencies, etc.);

   and to relaunch the third issue:

3. Teacher education in geometry (contexts, practices, content, perspectives, etc.).

Papers and poster proposals should use the CERME template, and conform to the guidelines at www.cerme12.it CERME 12 uses an electronic submission system www.conftool.pro/cerme12 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. The group leaders will decide about the acceptance of posters.

Important dates
- **15th July 2021:** Deadline for Early Bird Procedure
- **15th September 2021:** Deadline for submission of papers and posters.
- **4th November 2021:** Preliminary decisions on papers.
- **12h November 2021:** Preliminary decisions on posters.
- **2nd - 6th February 2022:** CERME 12 takes place.
- **See www.cerme12.it/deadlines/ for other important dates**