

CERME 13: Thematic Working Group 04 Geometry Teaching and Learning

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Scope and focus of the Working Group

The TWG04 is concerned with research on geometry teaching and learning from kindergarten to university, including teacher education. Our TWG encourages a plurality of theoretical and methodological approaches. The TWG focuses on themes raised in previous ERME conferences including but not limited to:

- The specific aspects of mathematical activity in geometry (visualization processes, visual and spatial skills, problem solving and proving, diagrams, language, and more);
- Geometry curriculum (didactic situations, tasks, activities, competencies, methodologies, tools, and more);
- Teacher education in geometry (contexts, practices, content, perspectives, and more).

Call for papers and poster proposals

TWG 04 invites colleagues to submit research-based papers on any subject related to geometry learning and teaching in primary, secondary, and tertiary education. We will be particularly interested in empirical as well as theoretically oriented papers and posters proposals on the following issues:

- Combination of geometric knowledge, visualization, and spatial skills in students' geometric reasoning about two-dimensional and three-dimensional shapes;
- Tools and technologies (novel and traditional, material and virtual) for geometry learning and teaching, the way they are used, the interplay between different tools, and their effectiveness.
- Geometry education in teacher training and professional development
- Task design for geometry teaching and learning
- Argumentative aspects of geometry education (including teaching and learning of proofs)
- Comparative international studies on geometry curriculum
- Affective and social aspects of geometry instruction
- Dynamic geometry environments (with emphasis on geometric component)
- Teaching and learning of non-Euclidian geometry topics

We encourage the submission of quality papers crossing the boundaries between traditional topics, emerging questions and stimulating discussions on the nature of geometry teaching and learning.

Papers and poster proposals should use the CERME template, and conform to the guidelines at <https://cerme13.renyi.hu/>. CERME 13 uses an electronic submission system <https://www.conftool.pro/cerme13/>. 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

- **15 February 2023:** Deadline for submission of papers and posters.
- **5 April 2023:** Preliminary decisions on papers and posters.
- **10-14 July 2023:** CERME 13 takes place.
- See <https://cerme13.renyi.hu/deadlines> for other important dates