

CERME-8: Working Group 7

MATHEMATICAL POTENTIAL, CREATIVITY AND TALENT

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Scope and Focus of WG7

The goal of the WG is to raise the attention of the mathematics education community to the field of mathematical creativity, mathematical potential and mathematical giftedness. The WG is aimed to encourage discussion between researchers in the fields of mathematics education and research mathematicians, and to promote empirical research that will contribute to the development of our understanding in the field. Following the debate at WG7 at CERME-7, we will continue international exchange of ideas related to the research on didactics of teaching highly able students as well as the promotion of creativity in all students.

Discussion will focus on the ways that lead individuals and communities to discoveries at different level as well as to realization of mathematical talents and developing mathematical creativity. Special attention will be given to the research on instructional activities that are challenging, fundamentally free of routine, inquiry-based, and rich in authentic mathematical problem solving.

The WG will address the ways of identifying mathematically gifted and creative students as well as the relationship between exceptional mathematical abilities, motivation and mathematical creativity.

Finally, the WG will pay attention to teacher education aimed at mathematics teaching that encourages creativity and promotes mathematical talents.

Call for papers and poster proposals

The group invites research papers (10 pages maximum) and poster proposals (2 pages) related to the abovementioned perspectives (prepared according to CERME8 template).

The contributions may vary in the research paradigms, basic theories, and research methodologies. Contributors may present research findings on the variety of issues in the field of on mathematical potential, creativity and talent, among which may be the following themes:

- Theoretical foundations of mathematical talent and creativity: definitions and origins, relationship between mathematical creativity, giftedness, motivation and effort;
- Identification of mathematically creative and talented individuals;
- In-depth studies on creative processes in mathematics;
- Pedagogy, mathematical challenges associated with
 - teaching highly able students and realization of students' high mathematical potential;
 - promotion mathematical creativity in all students;
- Teachers' knowledge, skills and professional development that high allow them to realize students' mathematical potential and develop students' creativity.
- Historical and sociological analysis of the relevant issues.

The focus of the research may vary from individual students and classrooms, teachers and teacher education as well as on the experiences of research mathematicians.

Papers and poster proposals should **use the CERME8 WORD template**

To submit it, you must email your paper as a WORD document to Roza Leikin at rozal@edu.haifa.ac.il, AND at the same time to the CERME8 Secretariat accerme8@metu.edu.tr.

Reviews and Decisions

Each paper will be peer-reviewed by three persons from group leaders and among those who submit papers to this Working Group. Some papers will be accepted pending revisions. Please be prepared to perform changes if required in November 2012.

The group leaders will decide about the acceptance of posters.

Important dates

September, 15, 2012: Deadline for submission of papers.

October, 1, 2012: Deadline for submission of poster proposals.

November, 1, 2012: Deadline for reviewers to submit their reviews.

December, 1, 2012: Deadline for revisions to papers.

The **FORMAT OF PAPERS AND POSTERS** must be as follows.

1. Write the paper in English using *Times* 14-point font, 16-point line space, and 6 points between paragraphs; occupying a frame of 170 by 247 mm
2. Restrict your paper to a maximum of **ten pages**, including references, figures and appendices. You may bring multiple copies of a longer version for distribution at the Conference.
3. Type and centre the title (in 16 point bold capitals), author(s) name(s) (in 14 point bold), and affiliation(s) of author(s) (in 14 point italics) in this order; all in *Times*.
4. Underline the name of the author(s) who will attend the CERME Working Group.
5. Begin the paper with an abstract of up to ten lines, single-spaced, in italics (*for papers only*).
6. Indicate up to five key-words for the paper (*for papers only*)
7. Give references in the APA style (http://www.tandf.co.uk/journals/authors/style/reference/tf_A.pdf).

Papers or poster proposals not using this format in full will not be accepted.