CERME 9: Thematic Working Group 1
Argumentation and proof

Leaders
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Scope and focus of the Thematic Working Group
The role and importance assigned to argumentation and proof in the last decades has led to an enormous variety of approaches to research in this area. Papers presented in the last ERME Conferences illustrate this diversity, offering a wide spectrum of perspectives, intertwining educational issues with explicit references to mathematical, logical, historical, philosophical, epistemological, psychological, curricular, anthropological and sociological issues. The scope of the working group is offering the participants the richness of diversity and the opportunity of a fruitful discussion, stimulating not only the interest of comparison but also the curiosity of undertaking a possible integration and the need of enhancing the development of international collaborations.

Call for papers and poster proposals
The organisers for Thematic Working Group 1 invite research-based papers on argumentation and proof, teaching and learning issues, classroom situations, clinical studies and dissemination. Any papers of relevance to the overall focus of the group will also be considered, including (but not limited to) papers that address one or more of the following themes:

1. The importance of explanation, justification, conjecturing, argumentation and proof and their relationships in mathematics and in mathematics education.
2. The role of logic and language in teaching, learning and analysing proof and the proving process.
3. The designing of activities that foster argumentation and proof skills along the curriculum from kinder garden to university, including teacher training.
4. The use, evolution, elaboration or integration of theoretical frames relevant for research argumentation and proof in an educational perspective.

The above as well as other issues will be considered from the following points of view:

(a) Historical, philosophical, and epistemological, related to the nature of argumentation and proof, their functions in mathematics in a historical perspective, including contemporaneous mathematics;

(b) Cognitive, concerning the processes related to argumentation and proof: cognitive process involved in production of conjectures, interpretation, evaluation and construction of proofs, elaboration of axiomatic; the effect on teaching and learning proof on students' performance in mathematics etc.;

(c) Social-cultural aspects for student construction of proofs;

(d) Educational, based on the analysis of students' thinking in approaching proof and proving, and implications for the design of curricula.

Papers and poster proposals should use the CERME word template, and conform to the guidelines at http://www.cerme9.org/guidelines/guidelines-for-authors/. To submit it, you need to email your paper as a WORD document to Samuele Antonini at **samuele.antonini@unipv.it**, AND at the same time to the conference secretariat at **submission@cerme9.org**. If possible please also send a pdf version *in addition* to the WORD document.

Reviews and decisions
Each paper will be peer-reviewed by two persons from among those who submit papers to this Thematic Working Group. Please expect to be asked to review up to three papers yourself between 15th September and 25th November. It may be necessary for you to revise your paper before final acceptance. The group leaders will decide about the acceptance of posters.

Important dates
September 15, 2014:	Deadline for submission of papers
October 1, 2014:	Deadline for submission of poster proposals
November 25, 2014:	Deadline for reviewers to submit their reviews
December 5, 2014:	Decisions about paper or poster acceptance
December 20, 2014:	Reduced fee registration deadline
January 10, 2015:	Deadline for revisions of papers
January 20, 2015:	Papers for presentation at the congress available on the CERME website