

## Working Group 2 Argumentation and Proof

### History of the Group

The Working sessions of Group 2 offer a stimulating forum for researchers interested in the field of “argumentation and proof”. Papers presented in the last ERME Conferences illustrate the enormous variety of approaches to research in this field, offering a wide spectrum of perspectives, from both the point of view of theoretical frameworks assumed and that of issues in focus. The richness of diversity gave the participants the opportunity of a fruitful discussion, stimulating not only the need of comparison but also the curiosity of undertaking a possible integration; this, in our view, constitutes the main challenge for the next working sessions.

To get a better insight of the work of our group, we invite prospective participants to WG 2 to view the proceedings of the previous Conferences at the ERME web site: <http://ermeweb.free.fr/>

### Call for papers

The organisers for Working Group 2 invite research-based papers on argumentation and proof, including epistemological and historical issues, learning issues and classroom situations.

We will be particularly interested in theoretical, empirical or developmental papers that address one or more of the following themes (though any papers of relevance to the overall focus of the group will also be considered):

*I. The importance of explanation, justification, and proof in mathematics and in mathematics education;*

*II. Conditions for introducing proofs in mathematics classrooms;*

*III. Long-term building of mathematical ideas related to proof construction.*

*These issues will be considered from the following points of view:*

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

*(b) Cognitive, concerning the processes related argumentation and proof. For instance cognitive process involved in production of conjectures, interpretation of a given proof, construction of proofs, ...;*

*(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.*

If you have further questions, please contact any of the leaders of the group (e-mail addresses are given below).

Maria Alessandra Mariotti  
[mariotti.ale@unisi.it](mailto:mariotti.ale@unisi.it)

Patrick Gibel  
[gibel.patrick@neuf.fr](mailto:gibel.patrick@neuf.fr)

Leonor Camargo  
[leocamargo@hotmail.com](mailto:leocamargo@hotmail.com)

Kristina Reiss  
[kristina.reiss@math.lmu.de](mailto:kristina.reiss@math.lmu.de)