



Fifth ETM Symposium Mathematical Working Spaces

First Call

Dates: From July 18 to 22, 2016

Place: University of Western Macedonia, Florina, Greece

Languages of the Symposium: English, French, Spanish

Organizing Institution: Pedagogical Faculty of Florina, University of Western Macedonia

Scientific Committee

Philippe R. RICHARD (Co-Président),
Université de Montréal, Canada

Laurent VIVIER (Co-Président), Université
Paris Diderot, France

José CARRILLO YÁÑEZ, Universidad de
Huelva, Espagne

Jean-Philippe DROUHARD, Universidad de
Buenos Aires, Argentine

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Complutense de Madrid, Espagne

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Jean-Baptiste LAGRANGE, Université de
Reims, France

Elizabeth MONTOYA DELGADILLO, Pontificia
Universidad Católica de Valparaíso, Chili

Konstantinos NIKOLANTONAKIS, Université
de la Macédoine Ouest, Grèce

Asuman OKTAÇ, Cinvestav, Mexique

Tomás RECIO, Universidad de Cantabria,
Espagne

Denis TANGUAY, Université du Québec,
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Organizing Committee

Konstantinos NIKOLANTONAKIS (Président),
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Charalampos LEMONIDIS, Université de la
Macédoine Ouest

Vasiliki TSIAPOU, Université de la Macédoine
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Ioanna KAIIFA, Université de la Macédoine
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Mathieu ANASTASSIADIS, Université de la
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Ioannis ZISSIS, Université de la Macédoine
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Eleni PAPAGIANNIDOU, Université de la
Macédoine Ouest

Ilias INDOS, Université de la Macédoine
Ouest

Spyros PAPACHARISSIS, Education nationale,
Grèce

Kostas STYLIADIS, Education nationale, Grèce



General overview of the fifth MWS Symposium

The first two meetings were initially dedicated to the study, development and possible uses of the concept of Mathematical Working Spaces (ETM, Espace de Travail Mathématique, in French) in mathematics education. Within ETM3 and ETM4, the focus was on the foundational component of these meetings: the mathematical work. This evolution has deepened and diversified the approaches to the subject. In particular, the semiotic, cognitive and instrumental dimensions, as elements of the MWS, were the subject of specific contributions. Similarly, the institutional and social dimensions of mathematical work are now integrated in all three working topics.

Following ETM4, one of the main objectives of the fifth ETM meeting is to strengthen the community of education researchers interested in MWS. The development of the MWS model as a methodological and a theoretical framework remains a central concern, including also the study of its effective uses to various areas of research in mathematics education.

Organization of the Symposium

The Symposium will last five days and is trilingual (English, Spanish, French) as in the previous ETM meetings. Each oral presentation will be done in one of these three languages and based on a slideshow written in one of the other two languages of the symposium.

The number of participants is limited to 60 and the duration of the event should allow each participant to consider all the themes (the committees will be careful to balance the themes evenly).

The meeting will be organized around three main topics and each contribution should deal with one of these topics. Each theme of the conference will be introduced by a plenary presentation recalling, in particular, the achievements of previous symposia.

Topic 1 - The mathematical work and Mathematical Work Spaces

Topic 2 - Specific tools and signs in the mathematical work

Topic 3 - Genesis and development of mathematical work: the role of teacher, trainer and interactions



Call for Papers and Proceedings

The contribution proposals will be evaluated by the Scientific Committee on the basis of a short summary (one page).

Each accepted contribution must then be submitted and should deal with one of the three main topics addressed by the Symposium, which shall be explicitly identified. Its maximum length will not exceed 30 000 characters (without spaces).

All remaining contributions will be pre-published online and be available at the Symposium.

As a result of the meeting, the contributions will be revised by the authors so that they can be submitted for publication within a book or an international journal.

Important dates

- Submission of a one-page abstract before **31th October 2015**.
- Notification of the review by the Scientific Committee before **1st December 2015**.
- Submission of the entire contributions before **28th February 2016**.
- Registration to the Symposium : **April 2016**.
- The Symposium will take place from **18th to 22th July 2016**.
- Submission of the papers for publication before **1st October 2016**.

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ETM Meetings

ETM Meetings are organized into working groups based on the contributions proposed by participants. The form of the Symposium allows an interesting exchange of ideas amongst participants and encourages the development of a scientific community with common interests. ETM meetings have an international dimension (Argentina, Canada, Chile, Cyprus, France, Greece, Mexico, Spain, etc.) and a multilingual participation (English, Spanish, French).

The first ETM meeting took place in October 24-25, 2009 in Nicosia (Cyprus). Communications of this first meeting were published in the book: Gagatsis, A., Kuzniak, A., Deliyianni, E., & Vivier, L. (eds, 2009). *Cyprus and France, Research in Mathematics Education*, Lefkosia.

The second meeting was held in October 22-23, 2010 in Paris, for the first time in the form of a symposium. The papers presented in this symposium were published after being reviewed in the journal *Annales de Didactique et de Sciences Cognitives*. (Vol. 16 and 17, http://www.irem.univ-paris-diderot.fr/articles/Annales_de_didactique_et_de_sciences_cognitives).

The third edition of ETM was held in Montreal in October 22-23-24, 2012. Proceedings are available online (<http://turing.scedu.umontreal.ca/etm/documents/Actes-ETM3.pdf>). Papers in this symposium have been reviewed in an editorial process for publication in a special issue of the journal RELIME: *El trabajo matemático – puntos de vista y perspectivas*, volume 17(4), I and II.

The meeting ETM4 took place from June 30 to July 4, 2014 in El Escorial, in the prestigious summer programs supported by the Universidad Complutense de Madrid. The publication of the proceedings is in the process of finalization.