

Sunday 22 July 2018, 10:30-12:00

Room: Auditorium PA 113 / PA 110

Theme 2: History and epistemology in students and teachers mathematics education: Curricula, courses, textbooks, and didactical material of all kinds – their design, implementation and evaluation

History, Epistemology and Teaching Mathematics: A challenging partnership?

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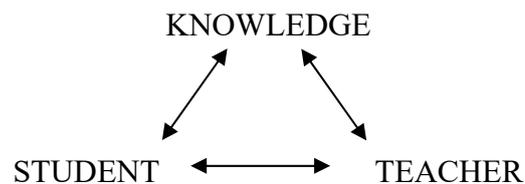
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Abstract

In this panel we will focus on the challenging relationship between educational research and “typical” classroom practices as far as the History and Pedagogy of Mathematics perspective is concerned. We will try to investigate on how the traditional didactical triangle:



should be considered embedded in more complex structures given that the teaching-learning action occurs in institutionalized settings. Rather than focusing on the relationship between the personal knowledge of the learner and the “savoir savant”, we will try to enlighten the *institutional environment* in which the teaching action takes place and try to understand how it affects the teachers’ choices.

There are several issues that play an important role in the background of the teaching-learning process at school:

- the hierarchical organization connecting an individual school with the Ministry of Education (or other governmental agency) and the consequent curricula, trajectories, and pre-service and in-service teachers training courses;
- the importance a government attaches to the teaching-learning activity with the consequent social conditions in which teachers live that entail how they perceive themselves; and
- the implicit epistemology of all the stakeholders, whether institutionalized or not.

Far from having the ambition of being exhaustive - given this tangled and dense scenery – we invite participants to a rich, open discussion, specifically attentive to the possible obstacles to the effectiveness of

Mathematics Education research. Following this direction, several points seem worth investigating:

- a teachers' possible lack of knowledge that combines with a consequent lack of awareness;
- a challenging acceptance of innovative practices inside the school,
- the teachers' feeling of not having enough time in the instructional schedule; and
- the difficulty in finding adequate materials.

We look forward to your proactive participation and we invite you to think about additional important points related to the History, Epistemology, and Teaching partnership in advance of the panel discussion.