

**INTERNATIONAL CONFERENCE ON  
« LOGIC AND MATHEMATICAL REASONING »  
MEXICO CITY, SEPTEMBER 30 - OCTOBER 2, 1997**

*Organized by*

Departamento de Matemáticas, Univ. Nacional Autónoma de México (México)  
Departamento de Filosofía, Univ. Autónoma Metropolitana (México)  
Centre François Viète d'histoire et de philosophie des sciences, Univ. de Nantes (France)  
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The meeting will be dealing with the following general question : What makes of a reasoning a mathematical reasoning ?

This question might be formulated in one of the two following ways :

- 1) As a normative question. It would be then necessary to provide an answer, stating how a reasoning should be in order to be classified as mathematical.
- 2) As a historical question. The answer should then be given by stating the particular attributes of mathematical reasoning as they occur in history.

A closer look at these two approaches seems to show that neither one is completely satisfactory. The first is based on the assumption that mathematical reasoning should satisfy certain conditions that finally appear as completely arbitrary. The second one requires that we should trust history as being able to provide by itself the object of our reflection. It is our belief that the two approaches should work together : the object of the epistemological research on the nature of mathematical reasoning comes out along with this same research through the possibility of finding an intrinsic characteristic which is common to all ways of reasoning displayed in texts and books considered as mathematical. This is why we think that no philosophy of mathematics is possible if it is conceived independently of the history of mathematics, and, in the same vein, no history is possible without philosophy.

Therefore, the problem we address is how to recognize an intrinsic characteristic which is common to those ways of reasoning occurring in mathematical literature. It seems to us that this characteristic can be expressed as a logical structure, even if the term « logic » used here has to be embedded into a broader sense and referred not only to meaning it has in formal modern logic.

Above all, our concern is not history of logic, nor history of the formalization of mathematical reasoning. Rather we want to study the forms of certain arguments, inferences, or discourse recognized as mathematical and investigate their differences or similarities.

Participation in this meeting is open to every scholar who wishes to give a 40 minutes talk. For informations write to Marco Panza, Centre F. Viète, Univ. de Nantes, Fac. des sciences, 2 rue de la Houssinière, 44072 Nantes 03 (panza@unantes.univ-nantes.fr) or consult the net (<http://hardy.fciencias.unam.mx:80/-logical/>).