

$$M \times \Phi$$

# Annals of Mathematics and Philosophy

## Background

The philosophy of mathematics is experiencing a profound renewal of its interests and methods. It is reflected both in a diversity of approaches – without exclusivity, and in alphabetical order: epistemology, conceptual history, logic and metamathematics, ontology, phenomenology, philosophy of mathematical practice, sociology, structuralism –, a movement of openness and dialogue between traditions, and a growing internationalisation of the discipline.

However, this general movement remains limited by the relatively weak dialogue between contemporary mathematics and philosophy, between mathematicians and philosophers. This is all the more regrettable since the current development of mathematics is witnessing real theoretical revolutions. Mathematics is flourishing, particularly in its interactions and applications, which opens up new fields both for philosophy and for the development of reflexive thinking on the part of mathematicians themselves.

Indeed:

- Many concepts, ideas, methods, mathematical theories often have an intrinsic philosophical content. Numerous reflexive moments are also found in mathematical articles, but most often without being philosophically articulated as such.
- The profound transformations in mathematics should lead, as has always been the case until recently, to a change in the way in which philosophy – mathematical, and even general – apprehends the fundamental problems of knowledge and works with concepts such as number, space, structure, the finite and the infinite, the discrete and the continuous, the local and the global...
- On the other hand, philosophy, including the most classical, is a huge building site, rich in a whole range of conceptual tools available to mathematicians to think about their practice and their theoretical interests.
- Finally, a characteristic of current mathematics is that of its extreme technicality, a major obstacle to carrying out work on its conceptual meaning. This is a real challenge for both mathematicians and philosophers.

## Objectives

In view of these observations, the review  $M \times \Phi$  is intended to:

- Disseminate innovative work in philosophy and mathematics, and particularly on recent or contemporary mathematics.
- Encourage joint ventures between philosophers and mathematicians, particularly in the context of thematic issues.
- Encourage diversity of approaches.
- Promote studies on the interactions and applications of mathematics (without exclusion), such as those with biology, chemistry, computer science and artificial intelligence, physics, cognitive sciences, humanities, educational sciences and didactics, etc. These subjects will be in particular the subject of thematic issues.
- Editing and publishing unpublished or not easily accessible texts, their translation, or publishing testimonies of particular significance of mathematicians, even if they do not practise a philosophical analysis in the strict sense of the word.

## Reviews

Each issue of the journal publishes a list of works (monographs and collectives) that have been brought to its attention. It publishes Reviews, the writing of which is entrusted to an author by the journal.

## Languages and format

The journal will be published in both electronic and paper format.

The official language of the printed version of the journal is English.

However, in order to allow authors who wish so to write the original text in another language, and to avoid the pitfall of a general impoverishment of the philosophical and mathematical language, they are encouraged to submit in French, Italian, German and Spanish as well. The choice of these languages may change and reflects the certainty of the editorial committee that there will be sufficiently many experts and reviewers available in each of the languages proposed. Each author submitting in a language other than English will have to provide, if the article is accepted, an English-language version of the article at a good language level (at the discretion of the editors), knowing that the journal may, if requested, provide assistance in the preparation of a first draft, according to arrangements to be communicated to the author. In this case, the article will be published twice in electronic format.

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