

The *Bibliographia Mathematica Colombiana* Database Preservation of the Colombian Mathematical Heritage

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Abstract

In this paper a description of a project on the preservation of the Colombian Mathematical Heritage is presented.

1. Introduction. In 1974 a *Project on the history of Mathematics in Colombia* was initiated with funds from COLCIENCIAS, the Colombian Mathematical Society (SCM) and the National University of Colombia. The project included the elaboration of a complete as possible bibliography on the written mathematical or related production in Colombia. From the 18th Century to the present day, in the style of Mathematical Reviews. Thus the initial purpose was to publish a book followed by successive supplements as needed. In the first three years of the project a substantial amount of information was collected and manually organized in filing cards. This process came to a standstill for nearly ten years mostly because of lack of adequate financial funding. But in 1987 the bibliographic project was reconsidered and directed towards a digital database to be placed for consultation in the Web, with wider goals and perspectives. More precisely it became an ambitious program intended to preserve the Colombian mathematical heritage as finally proposed in 1997 [Albis & Sánchez, 1997]. Our purpose in this paper is to outline the main features of this program and describe its status artis, and the difficulties, past, present and future, influencing its development.

2. The project. This new project is called the *Colombian Mathematical Production Information System* (CMPIS), and is now a joint venture of The Colombian Academy of Sciences, the Colombian Mathematical Society and the National University of Colombia. Its objectives are the following:

a) Construction of the *Bibliographia Mathematica Colombiana* database. The purpose of this database is to supply basic bibliographical information on each of the identified written materials on mathematics or related to it, historically or else. This information contains the following items: author(s), subject, date or year of publication, publisher, journal, location (city, library, archive, etc.), key words, and an abstract or review in Spanish, and at not so long term an abstract in English. Actually the database has nearly 3400 entries, in permanent revision, and about two thousand more are waiting for inclusion. Since its creation the database has been useful to researchers as a source of information, used to write undergraduate papers, MS thesis and more advanced research papers. This information, including the abstracts or reviews, can be retrieved in PDF format and printed as needed. This database is under permanent construction and refinement, and can be consulted at the following address:

<http://www.scm.org.co/index.php?hoja=historia>

b) Digital preservation of the Colombian mathematical heritage. In order to *preserve as complete as possible the Colombian mathematical heritage*, the project comprises the digitalization and/or reproduction of manuscripts, books, booklets and papers, published in Colombia related to mathematics, as well as the reproduction of mathematicians' portraits beginning at the 19th Century, and links to biographic essays and bibliographies of them, which appear elsewhere in the project's web site. This information is structured in the following way:

- Documents and manuscripts
- Colombian books: 1800-1950
- Foreign books
- Portrait Gallery
- Biographies
- Bibliographies
- Historia Mathematica Colombiana

In the documents and manuscript section these are digitalized, and linked to essays on their history and characteristics. The same is done in the Colombian books section. In the foreign books section the most influential textbooks in the development of mathematics and mathematical education in Colombia are analyzed. The *Historia Mathematica Colombiana* is an auxiliary plain lists of books and papers, divided by historical periods and themes, with links to available electronic files. This part of the project is still at a very raw stage. For viewing its status and details we refer to the following WWW site:

<http://www.accefyn.org.co/proyecto/conservacion.htm#proyecto>

Conclusions. As said before the development and implementation of the project has been very slow mostly because of the lack of adequate financial funding: in the last six years less than US\$2,000 per year, scarcely enough to pay four typing assistants during three months a year, though the project also needs trained personnel in documental analysis as well as able reviewers. This scarce funding has been provided mostly by the National University of Colombia, while the Colombian Academy of Science and the Colombian Mathematical Society have provided free enough space as needed in their servers. Being a pioneer example in Latin America it has attracted the attention of EMANI, as a project that satisfies the need for long-term availability of financial resources, to guarantee the future continuity and success of the project.

References

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