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# Inside the AMS

## AMS Participates in Free Font Project

The AMS has banded together with a small group of scientific societies and publishers on a project to produce a free font set to meet the needs of scientific and technical publishing. The project also includes an effort to obtain unique, universally standardized computer codes for a large collection of mathematical and technical symbols.

The problem being addressed is a common one, seen in such everyday nuisances as not being able to read a mathematics paper received electronically because one's computer or printer lacks all the necessary fonts. As electronic publishing and information exchange permeate all aspects of the professional lives of scientists, mathematicians, and engineers, the lack of a commonly used set of fonts has arisen as an important problem. The wide variety of symbols used in scientific and technical writing mean that authors and publishers often patch together font sets by mixing proprietary and freely available fonts. Font licensing considerations can restrict the exchange of these font sets and sometimes of the documents created with them.

To address this problem, the STIPUB (Scientific and Technical Information Publishers) group initiated the STIX (Scientific and Technical Information eXchange) project. STIPUB consists of the AMS, the American Chemical Society, the American Institute of Physics, the American Physical Society, *Chemical Abstracts*, the Institute of Electrical and Electronics Engineers, and Elsevier, Inc. The STIX project is overseen by a team of about ten professionals who are on the staffs of the STIPUB organizations and who have expertise in electronic publishing.

The STIX project has two goals. The first goal is to ensure that all the symbols to be included in the STIX font set have unique, universally standardized computer codes. When the STIX team assembled the collection of symbols to be included in the STIX font set, many symbols were found that do not have Unicode codes. Like the familiar ASCII system, Unicode is a system for encoding written material into a form that can be processed by computer. But where ASCII represents only the (unaccented) Latin alphabet, Unicode has the capacity to provide 16-bit codes for 64,000 characters and symbols. An evolving international standard, Unicode is coming into widespread use and will eventually replace ASCII. The STIX project is currently working on obtaining Unicode codes for all of the symbols to be included in the STIX fonts.

The second goal of the STIX project is the actual creation of the STIX fonts. At the time of this writing the STIPUB group was assessing bids from companies to develop the

fonts. The cost of the development will be shared among the STIPUB members. Plans call for development to be under way during 2000, though it is too soon yet to say when the work will be complete. The STIX fonts will be available under license but free of charge.

Free availability of a universal font set will facilitate the flow of scientific and technical communication by simplifying exchange of documents among authors and publishers. In addition, the incorporation of the full STIX symbol collection into Unicode, together with the availability of the MATHML markup language for presenting mathematics in Web documents, will eventually permit development of a new archival format for mathematics in which one can search not just for text but also for symbols and expressions and from which one can lift expressions and feed them directly into symbolic manipulation tools. In this way the STIX project is an important step toward realizing the full potential of mathematics publishing on the World Wide Web.

—Allyn Jackson

## MR Celebrates Its Sixtieth

At the Joint Mathematics Meetings in Washington, DC, in January 2000, *Mathematical Reviews* celebrated its sixtieth birthday. It was in 1940 that Otto Neugebauer fled Europe and wound up at Brown University. There he founded MR, which has become one of the most important tools for accessing the mathematical literature.

The celebration featured presentations offering three views on MR: executive editor Jane Kister spoke on MR today, V. Frederick Rickey of the U.S. Military Academy offered a look back at MR's history, and Andrew Odlyzko of AT&T Research pondered what the future might bring. A reception followed the talks.

Available at the celebration was a special booklet produced to mark MR's sixtieth anniversary, *MathSciNet—Mathematical Reviews on the Web: Guiding you through the literature of mathematics*. Warning readers on the cover that it contains "Everything you wanted to know...and then some," the booklet offers interesting historical tidbits, descriptions of the MR production process, an overview of the MR database, and a guide to using MathSciNet. The booklet is available free on request from the AMS (see the AMS Bookstore, [www.ams.org/bookstore/](http://www.ams.org/bookstore/)) and can be downloaded from [www.ams.org/mathscinet/guidebook/](http://www.ams.org/mathscinet/guidebook/).

—Allyn Jackson