The Géode, one of the City's theaters.

By Alex Kozlov

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The bimonthly news-journal of the Society for Industrial and Applied Mathematics.

New SIAM Journals to Focus on Discrete Math and Matrix Analysis

In 1978, the SIAM Council and Board of Trustees approved plans to publish a SIAM Journal on algebraic and discrete methods. In so doing, they recognized the substantial growth in these fields and the need for a journal to focus on the application of combinatorics, graph theory, and discrete mathematics to computer science, economics, coding, and operations research. The decision to introduce the new journal was based largely on the increasing interest in algebraic aspects of discrete mathematics among SIAM members, said C. William Gear, SIAM president.

During the same period, SIAM established two activity groups, one linear algebra and the other discrete mathematics. Each of these groups has organized several well-attended conferences. Other conferences are now being organized, one in Madison in May 1988, on algebraic and applications, and another in San Francisco in June 1988, on discrete mathematics. Gear said: "The decision to introduce SIAM journals in these areas was a natural step to take."

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Math Sciences Education Board Forging Ambitious Program

By Gene H. Golub, professor of computer science at Stanford University and past president of SIAM, will be managing editor of the new journal. He is the founding editor of SIAM Journal on Scientific and Statistical Computing. Robert J. Plem... Page 15

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The Geodesic dome at the Géode, a movie theater.

Adapted from material prepared for SIAM News by the staff of the CI Math Sciences Education Board. Forging Ambitious Program for students, American students are by no means once they reach high school consistently hard part--figuring out how to solve them. Parisons of students from industrialized and sciences is crossed by two picturesque canals, La de Triomphe de l'Etoile. It is just 20 minutes by subway from the Arc the generations of today and tomorrow.

Major goals of the reinvigorification effort include raising expectations, changing the image of mathematics as static and dull, and paving the way for the dramatic changes to come. Perhaps the most important step in paving the way will come in the spring of 1989, with publication of standards for school mathematics. These standards, are recommended to be adopted at states and localities, will cover curriculum, instruction, and evaluation and are being developed in a joint context with the National Council of Teachers of Mathematics. They will form what SIAM Executive Director Mario Strand called "our launching pad..." the base from which we can help school systems make the significant changes necessary for the 21st century.

A recent SIAM statement describes the organization's strategic plan as the most comprehensive and far-reaching national leadership effort in mathematics education ever to be undertaken in the U.S.
GOING TO ICU'CICAM '87?

It will be a world event—

More than 1,000 people from 60 countries are expected to attend the Second International Conference on Industrial and Applied Mathematics, on June 29 to July 3, 1987, at La Villette in Paris. Travel agencies have been selected by INRIA (the conference organizer) to help you make your travel arrangements. The main agency is:

Techco Congres :
12, rue des Archives
75004 Paris, France
Tel: 01 44 72 10 60
Fax: 01 45 72 73 73
Tel: 28386 (Avrenex)

The following travel agencies have also been approved:

For the United States and Canada:

Travel Unlimited
8500 Wilshire Blvd.
Suite 528
Beverly Hills, CA 90211
Tel: 213-657-4555 or 213-655-4262
Fax: 213-655-4252

For Japan:

French Travel Center
1-2 Akasaka 1-Chome, Minato-ku
Tokyo, Japan
Tel: 81-3-382-4251 or 81-3-382-4777
Fax: 242686

For Brazil (and South America):

Tel: 213-657-4555 or 213-655-4262

Travel agencies have been elected to handle travel arrangements. For Brazil (and South America):

Tel: 213-657-4555 or 213-655-4262

Details about the conference, including program data, registration information, and hotel accommodations will be available in an IFIP Publication. The conference is being sponsored by GAMM, BIMA, SIAM, and INRIA. INRIA has responsibility for conference organization:

INRIA
Service des Relations Internationales
Bureau de Colloques
Domaine de Voluceau
BP 105 - 78153 LE CHESNAY Cedex
France
Tel: 33.1.39.63.56.00
Fax: 33.1.39.63.56.06

For information about conference exhibits, write to:

Jean Claude
BURL 47
6935 Moureaux Cedex
France
Tel: 33.1.40.24.65.16

Any questions? In the United States and Canada, contact SIAM. Elsewhere, write or call INRIA, or Service des Relations Internationales.

On the Eve of IC'IAM '87

Four international societies of applied mathematicians—the Gesellschaft für Angewandte Mathematik and Mechanik (GAMM) of the German-speaking countries, the Institute of Mathematics and Its Applications (IMA) of the United Kingdom, the Society for Industrial and Applied Mathematics (SIAM) of the United States, and the Société de Mathématiques Appliquées et Industrielles (SMAI) of France—will join forces in Paris from June 29 to July 3, 1987, to conduct the First International Conference on Industrial and Applied Mathematics. The conference, called IC'IAM '87, will be hosted by SMAI.

Applied mathematics is a very old subject. Research in applied mathematics received great impetus during and immediately following World War II, when there were major advances in mathematical methodologies and their applications to problems of government and industry.

Since that period, research results in applied mathematics, including the numerical mathematics and algorithm developments that have evolved with the large-scale high-performance scientific computers, have triggered new interest in the use of mathematics and computers to solve real-world problems. In the process, computational mathematics has appeared as a major subfield of applied mathematics.

Many mathematicians are shifting their attention to problems of an applied character. Applied mathematics programs, distinct from those in classical mathematics, are appearing in the universities. Educators are asking how mathematical applications should be introduced into the curriculum to increase mathematical literacy. Publishers are seeking authors for books on applied mathematics. Many industrial organizations now have formal groups that include mathematicians for engineering and scientific analysis. In the United States, there have been new initiatives by government agencies to support applied mathematics research.

More than 1,000 applied mathematicians from more than 50 countries are expected to present papers at IC'IAM '87 on topics ranging from vonroth, chaos, dynamical systems, robotics, and control to optimization, parallel processing, multidig method.
The success of the Cité in bringing science to the community at large. As such, the Cité is dedicated to providing a better understanding of the achievements and potential of all aspects of science, as well as their place in a changing society, the Cité is a forerunner of a new generation of science museums.

A New Perspective on Science

To facilitate understanding of often complex scientific achievements and their potential, the permanent exhibitions are divided into broad, interconnected subject areas — "From Earth to Universe," "The Adventure of Life," "Matter and the Work of Man," and "Language and Communication" — rather than narrow disciplines. Among the issues addressed by these permanent exhibits are the relationship of humans with the physical environment, their place in society, and the ways in which they communicate with one another. The emphasis throughout is on physical, biological, and social — brings the often unseen impact of science and industry to human understanding.

Science Newsroom

The "Science Newsroom" uses multimedia techniques to explain and contextualize key scientific events for a general audience. Companies are invited to take advantage of this facility and the presence of invited journalists to present new achievements, breakthroughs, and developments in their fields.

Space Age Theater

The Cité has two theaters for the presentation of science-related subjects. Spectators attending presentations in the Géode, a hemispherical structure located on the south side of the main building, are surrounded by 180-degree images and immersed in six-track stereo sound. The images projected on the screen offer unparalleled clarity and impact, with special effects added by lasers and holograms.

In the Planetarium, one of the focal points of the Cité, visitors discover the mysteries of outer space. Images from observatories and space missions are used to explain clearly, along with multimedia projectors.

Serving the Community

The Cité serves a wide range of communities, from the most modern to the most traditional, of young visitors, scientists, and clubs. As an open museum, the Cité is invited journalists to present new achievements, breakthroughs, and developments in their fields.

The Key Role of Industry

The achievements of the industry and the essential role played by industry in modern life are highlighted throughout the Cité. Industry has cosponsored many of the Cité's exhibitions.

In the industrial exhibition area, exhibitions change every six months. Companies are invited to showcase their work and achievements, including new products, new technologies, and training programs.

"Viewing Industry in 3D" is a fascinating portrayal of techniques and technologies developed by various industries. The "Science Newsroom" uses multimedia techniques to explain and contextualize key scientific events for a general audience. Companies are invited to take advantage of this facility and the presence of invited journalists to present new achievements, breakthroughs, and developments in their fields.

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