

IACMMs NEWSLETTER # 1, Oct. 1996

The Israel Association for Computational Methods in Mechanics *Bulletin*

Editor: Dr. Zohar Yosibash, Mech. Eng. Dept., Ben-Gurion Univ. of the Negev, Beer-Sheva, 84105, Israel, Tel: 07-6472671, Fax: 07-6472990, e-mail: zohary@pversion.bgu.ac.il

IACMM President: Prof. Pinhas Bar-Yoseph, Faculty of Mech. Eng., Technion, Haifa, 32000, Israel, Tel: 04-8293476, Fax: 04-8324533, e-mail: merbygr@cmlp.technion.ac.il

Secretary-Treasurer: Dr. Isaac Harari, Dept. of Solid Mech. Mat. & Struct., Tel-Aviv Univ., Ramat-Aviv 69978, Israel, Tel: 03-6409439, Fax: 03-6407617, e-mail: harari@eng.tau.ac.il

Representative-at-IACM: Prof. Dan Givoli, Faculty of Aero. Eng., Technion, Haifa, 32000, Israel, Tel: 04-8293814, Fax: 04-8231848, e-mail: givolid@aerodyne.technion.ac.il

Executive Council of IACMM: Prof. Michel Bercovier, Mr. George Berold,

Mr. Gideon Even-Sturles, Dr. Zohar Yosibash, Mr. Zeev Zamir

Auditing Committee: Dr. Eytan Kochavi & Mr. Eduard Moses

From the President

newsletter, scheduled to be issued every four months, will have the following permanent sections: *From the President, IACMM News, Member News, Calendar of Meetings & Conferences, New Software Products, Keynote Article, Member's Views*, and any other sections which may be suggested.

Should you wish to contribute to the effort of shaping our newsletter, do not hesitate to contact the editor or any of the council members - we will be pleased to hear from you.

IACMM Objectives

The objectives of the Association are to promote science and its applications in the field of computational methods in mechanics, emphasizing Israeli needs. These goals will be reached by:

1. Organizing lectures and symposia in Israel on the topic of computational methods in mechanics.
2. Coordinating technical meetings for various organizations that are interested in computational methods in mechanics.
3. Collaboration with institutes and organizations in Israel and abroad in the general area of computational mechanics, and promoting active participation in technical meetings in this area in Israel and abroad.
4. The Israeli Association is an affiliate of the International Association for Computational Mechanics (IACM).
5. The Association is not for profit. Activity in the association is on a voluntary basis.

Fore-note

This first issued (short) newsletter is aimed at attracting the IACMM members attention to this important vehicle of information distribution, advertising possibilities, expressing a view on any topic related to IACMM and many more tasks, and thus encouraging all of you to participate in its evolution in the future.

It is hoped that the upcoming issues of the

IACMM News

- Thanks to Dr. Isaac Harari, members can now obtain information about IACMM and its services on-line. A WWW home page has been established and can be reached by pointing to the following URL: <http://www.eng.tau.ac.il/~harari/IACMM>. The IACMM home page currently has information organized into seven categories: 1. *Objectives*, 2. *Executive council*, 3. *Membership application* 4. *Newsletter*, 5. *Conference announcements* 6. *Computational mechanics in Israel* and 7. *Global links*. It also has links to the IACM home page, to IACMM symposium and exhibit, and to a special issue of SIAM Journal on Numerical Analysis dedicated to Ami Harten.
- As of the beginning of 1996 USACM (United States Association for Computational Mechanics) has its own WWW home page which can be reached by pointing to the following URL: <http://www.ncsa.uiuc.edu/Apps/SE/mechanics/usacm/usacm.html>.
- The upcoming IACMM Symposium and Exhibit will be held at Tel Aviv university, Engineering Studies building, on Oct. 10, 1996.
- At present, after only a year of activity, IACMM contains 46 members (25 industry related members and 21 academia related members).

Member News

- Prof. Bercovier is on Sabbatical leave from the Hebrew University and is with Pole Universitaire Leonard de Vinci, Paris, France.
- Prof. Dan Givoli has returned from his Sabbatical leave at RPI, USA and is back at the Faculty of Aero. Eng. at the Technion.

Enjoy the stay and Welcome back!

IACMM First Symposium

IACMM had its first general meeting and symposium in November 1995 at the Technion. The opening session contained Prof. Solan's greetings (vice president of the Technion) for our association followed by prof. Bar-Yoseph and Dr. Harari's introduction session on the IACMM, its objectives and who the founder members are (prof. Bar-Yoseph, prof. Givoli and Dr. Harari).

Two professional sessions were held there-after, with the following four talks delivered:

1. Prof. M. Bercovier (Comp. Sci. - Hebrew univ.): *Parallel & Distributed Computing: Impact on Computational Mechanics in Industry*.
2. Prof. P. Bar-Yosef (CML, Mech. Eng. Dept. - Technion): *Spectral Element Methods for Time Dependent Problems*.
3. Dr. I. Harari (Dept. of Solid Mech. Mat. & Struct. - Tel-Aviv univ.): *Finite Element Methods for Time Harmonic Problems*.
4. Dr. Z. Yosibash (Mech. Eng. Dept. - Ben-Gurion univ.): *On the h- p- and hp-Versions of the FEM and Their Application to Linear Elasticity Problems*.

Elections for president, secretary-treasurer, representative-at-IACM, executive council and auditing committee were held, and Prof. Bercovier concluded the day by congratulating the founders on behalf of all IACMM members.

Calendar of Meetings & Conferences

- IACMM Symposium and Exhibit, October 10, 1996, Tel Aviv University, Tel Aviv. (For additional information contact: Prof. Bar-Yoseph.)
- 5th International Meshing Roundtable, October 10-11, 1996, Pittsburgh, Pennsylvania.
- IEEE Workshop on Computational Science and Engineering, October 21-22, 1996, Purdue University, West Lafayette, Indiana.
- 13th GAMM-Seminar Kiel on Numerical Treatment of Multi-Scale Problems, January 24-26, 1997, Universitt Kiel, Germany.
- ICES '97 1997 International Conference on Computational Engineering Science, May 4-9, 1997, San Jose, Costa Rica.
- IMACS-97 Third IMACS International Symposium on Iterative Methods in Scientific Computation, July 9-12, 1997, University of Wyoming, Laramie, Wyoming, USA.
- SIAM97 SIAM Annual Meeting, July 13-18, 1997, Stanford, California.
- ICTCA3 Third International Conference on Theoretical and Computational Acoustics, July 14-18, 1997, Columbia University, New York.

- USNCCM IV Fourth U.S. National Congress on Computational Mechanics, August 6-8, 1997, San Francisco, California.
- DD10 Tenth International Conference on Domain Decomposition Methods, August 10-14, 1997, Boulder, Colorado.
- 15th IMACS WORLD CONGRESS 1997 on Scientific Computation, Applied Mathematics and Simulation, August 24-30, 1997, Berlin, Germany.
- Modern Practice in Stress and Vibration Analysis, September 3-5, 1997, University College Dublin, Ireland.
- CMFT97 Computational Methods and Function Theory, October 13-18, 1997, Nicosia, Cyprus.
- WCCM IV Fourth World Congress on Computational Mechanics, June 29 - July 2, 1998, Buenos Aires.

For further information and contact person please see the IACMM URL.

New Software Products

Vendors of FEA, CAD, CFD, etc. software products are encouraged to notify the editor on any news on their products. Advertising is also possible in the newsletter for a fee.

ARTICLE: Seymour Cray-Life & Death

An article on the life and death of Seymour CRAY was posted Saturday on the HPCwire, an electronic news service specializing in high performance computing, and parts of it are provided herein.

All of us are familiar with the super-computers Cray, but most of us don't know that the man that started all these was Seymour Cray who died on Oct. 5-th, 1996. He died at the age of 70 in Penrose Hospital from injuries he sustained Sept. 23 as a result of a multiple-car accident. Cray founded supercomputer-maker Cray Research Inc in 1972.

A native of Chippewa Falls, Wis., Cray earned his bachelor's degree in electrical engineering from the University of Minnesota in 1950. His professional career began with UNIVAC I. In 1957, he was one of the founders of Control Data Corp.

Seymour Cray was exceptional, because he devoted exceptional creative intelligence to the practical tasks of turning his ideas into machines that worked. Even more remarkable, he founded and

guided a company that built and sold those machines, transforming super-computing from an esoteric specialty into a significant sector within computing.

Personality

Graceful, in movement, thought, and in personal relations, Seymour Cray was dignified, confident, even authoritative, but gentle and patient. He spoke forcefully and persuasively, especially in face-to-face conversations, but he also listened carefully.

These qualities explain the exceptional strength and persistence of the widespread loyalty and respect of people who worked for decades with Seymour Cray. He also had an unusual impact on those who met him only once, for a brief interview with other journalists.

Seymour Cray became a famous man, but he did not respond to fame like most other celebrities. He refused to be celebrated. That would be misleading. To be sure, he took little interest in marketing, beyond the circle of personal friends whom he regarded as collaborators rather than customers. He had the utmost faith in his products, and he was confident that their excellence was sufficient eloquence.

"Testament"

In super-computing, other ways to achieve exceptionally high performance began to equal, and then to surpass, the architectural philosophies that Seymour Cray believed in. During the last few years, he endured repeated disappointments - although, characteristically, he launched a new venture only a few months ago.

Nevertheless, his computational watchwords of simplicity, balance, and efficient memory management remain as sound today as at the beginning of Seymour Cray's lustrous career. Systems with performance in the hundreds of gigaflops are becoming routine. Teraflop performance is now a realistic goal. Equally important, products capable of several gigaflops are becoming available at prices less than the price-tag on a well-equipped automobile.

Yet all of those responsible for these modern marvels must acknowledge that they are building upon the rich testament of an extraordinary man.

In death as in life, Seymour Cray is super-computing.

IACMM annual membership: 110 NIS

Covers IACMM symposia, dues to the International Association for Computational Mechanics (IACM) and a subscription to the IACMM & IACM Bulletin.