

IAMG NEWSLETTER

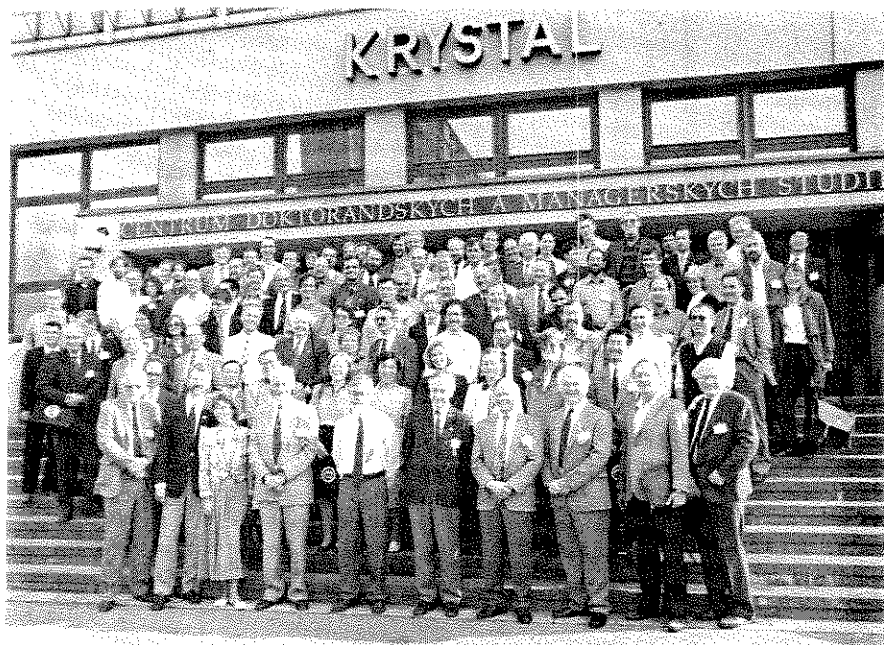


NO. 47, NOVEMBER, 1993

PRAGUE HOST FOR SILVER ANNIVERSARY

Prague, the city of 100 spires and capitol of the newly formed **Czech Republic**, played host to the **International Association for Mathematical Geology's** Silver Anniversary Meeting, held October 10 through 15, 1993. **IAMG**, formed 25 years earlier at the 23rd International Geological Congress in Prague amid the Russian tank invasion, enjoyed a more open, comfortable city in 1993. Gone are the tanks, replaced instead by an American invasion led by K-Mart, McDonalds, and Little Caesars Pizza. About 150 participants attended the meeting from around the globe. **Vaclav Nemec**, organizer of the event and Eastern Treasurer for **IAMG**, compiled an extraordinary itinerary, including an opening ceremony at Charles University in the Old Town, a concert of Czech Baroque music in St. Simona a Judy church, and an evening at the tavern, U Fleku, featured in the September issue of **National Geographic**.

This issue of the **IAMG** Newsletter is a documentary on the 25th Anniversary Meeting. As importantly, this Newsletter is dedicated to the memory of Felix Chayes, the 1984 recipient of **IAMG's** Krumbein Medal, who passed away earlier this year at the age of 76. A memorial to Felix appears at the end of this Newsletter.



A group photo of the participants attending **IAMG's** 25th Anniversary Meeting. The backdrop is the Hotel Krystal, venue for the meeting. Photo taken by J. Carr on October 12, 1993.

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PRESIDENT'S FORUM

by Michael Hohn

REACHING OUT

A lot of my professional development I attribute to the IAMG and its journals. I derive a lot of simple pleasure from reading papers in our journals, including papers only remotely to do with my current research interests. The first professional society I joined was the IAMG, and my first paper was published in Mathematical Geology. I joined as soon as I had a more or less permanent work address and I felt I could sustain membership.

Not every geologist is so fortunate, and many problems are faced by scientists in the developing countries, Asia, and Eastern Europe, wanting to receive our publications, or at least news of IAMG activities. In the past, officers of the IAMG struggled with the problem posed by controlled currencies in eastern Europe and Asia. Hence, we have always had both Eastern and Western Treasurers. Although our Eastern Treasurer served as an open door for information and contacts between East and West, few people in his area could subscribe to our publications.

Today, fewer statutory barriers exist, but economic barriers are high, and now we must consider developing nations on the other continents as well. It is clear that a large community of mathematical geologists simply cannot afford membership, and cannot afford traveling to many professional meetings.

The officers and council members have tried to meet the problem in part by creating what we call "Corresponding Membership." For the cost of our newsletter, a scientist can belong to the IAMG. Corresponding members send their application fees to a national representative, who distributes newsletters in his or her country. This saves some money for the IAMG, and relieves the corresponding member from having to pay for a check drawn on a foreign bank. We have had some success with this year-old initiative, which depends very much on our ability to find responsive national representatives.

The cost of attending professional meetings is a related issue, and one that has prompted a letter from an attendee of our Silver Anniversary meeting in Prague. (See the letters to the Editor in this newsletter.) The registration fee for this meeting was probably the most-discussed single topic within the organizing committee. Three options were considered: a uniformly low registration fee; different fees by geography; and a fee high enough to recoup costs of the meeting, coupled with travel subsidies awarded by need and on application. We took the latter course, providing thousands of dollars in outright travel subsidies and registration waivers to attendees from eastern Europe and Asia. We also provided money to support attendance by 15 scientists to the Mining Pribram that partially overlapped with the IAMG meeting.

Obviously, providing money is not enough, and the low attendance of Czech scientists to a meeting in their capital city points out that we must do more to advertise our meetings.

One way we hope to meet the realities of economic situations around the world is to hold an annual meeting each year. The first such meeting is to be held in October, 1994, near Montreal, Canada. The intent is to limit the proliferation in specialized meetings and bring together several sponsors to hold a single, high-quality meeting. Even those of us in the better-off countries cannot afford to attend the numerous meetings that are being held. We intend to keep these meetings moving around the world. First notice of this meeting is printed in this newsletter.

In closing, we are a truly international organization, and we wish to serve all members and potential members around the world. If you have specific comments or suggestions to make, please write to an officer or member of Council.

LETTER TO THE EDITOR

Dear IAMG Newsletter Editor:

I have just returned from Prague, the wonderful city of 100 spires and from the interesting, stimulating (though a bit chaotic) silver anniversary meeting of IAMG. It was well attended - approximately 150 participants from all over the world, even several Russians, Hungarians, Poles - and a total of four (4) Czechs.

Only four Czechs attended a meeting of some importance held in the capital of their own country. Two of these Czechs were there ex officio, the other two came to present a paper and a poster. Now, wouldn't you expect a few more local scientists to attend such an interesting and important meeting right on their doorstep? What might be the reason they didn't show up?

Those of us attending were curious about that, but we got only half the answer. **Vaclav Nemeč**, long-time eastern treasurer of IAMG, spent part of his allotted time to let the audience in on some of the unpleasant exchanges between he and the organizing committee in the U.S. on the registration fee structure and the inclusion of the Mining Pribram meeting with the IAMG meeting. The upshot seemed to be that the registration fee was set at \$140 (U.S.) with no reduction for participants from countries with weak currencies and low incomes such as the Czech Republic. After he finished, the organizing committee refused to rebut his accusations or tell their side of the story.

Now, \$140 is no big sum of money for any of us from the western world. A consultant can make that much in one hour. Yet, a Czech works about a week to earn that much and a Russian two to three months. IAMG has, in fact, waived the registration fees for some of the participants from those countries who asked. However, would it not be appropriate to clearly state that lower (or no) registration fees will be charged to those who couldn't come otherwise, in order to raise the attendance of people from eastern Europe? I think most of us wouldn't even complain if we had to pay 10% more in order to allow some of our less fortunate fellow geologists to attend such a meeting. And, it is certainly not without precedent that low income participants of some geological meetings are charged lower fees (viz: students, unemployed geologists, etc).

So, what's the deal? Why couldn't this registration fee problem have been handled in a reasonable way? Why didn't the organizing committee or the board of IAMG respond to Vaclav Nemeč's accusations? Surely, there is an answer, perhaps even a good reason. But, on the surface (which is what the public and most of us were seeing), it seemed like a poor public relations image for a silver anniversary meeting of IAMG and an outrage that the meeting took place in the Czech capital without Czech participation. It left many of us with a bad taste - I would have hoped for a more inclusive get-together, especially now that Prague and the eastern countries are free again.

Harald S. Poelchau
Research Center Juelich, D-52425 Juelich, Germany.

Editor's Note: the following is a list of countries from which participants in IAMG's Silver Anniversary Meeting were from; countries are listed in descending order on the basis of number of participants (shown in parentheses):

Germany (34)
U.S.A. (30)
Russia (16)
Canada (8)
United Kingdom (8)
Netherlands (6)
Poland (6)
Hungary (5)
Italy (4)
Czech Republic (4)
Switzerland (4)
Japan (4)
Portugal (3)
Israel (3)
Austria (2)
Norway (2)
Spain (2)

Following countries had one participant each: **China, Turkey, Ethiopia, France, Slovak Republic, Estonia, Venezuela, Sweden, India, Ireland, Belgium.**

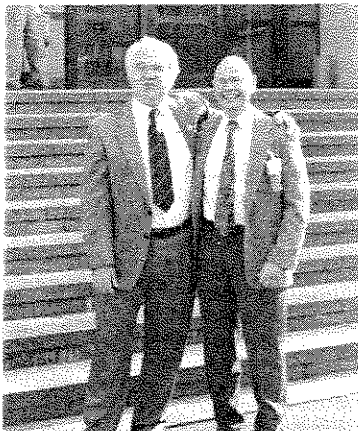
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PHOTO SUMMARY OF SILVER ANNIVERSARY MEETING

Vaclav Nemeč, IAMG Eastern Treasurer
Organizer of the Silver Anniversary Meeting



John Davis (left) and **Jan Harff** (right) reviewed
abstracts and organized conference sessions.



OPENINGS

Dick McCammon, previous President of IAMG, opened the Silver Anniversary Meeting on October 11, 1993.

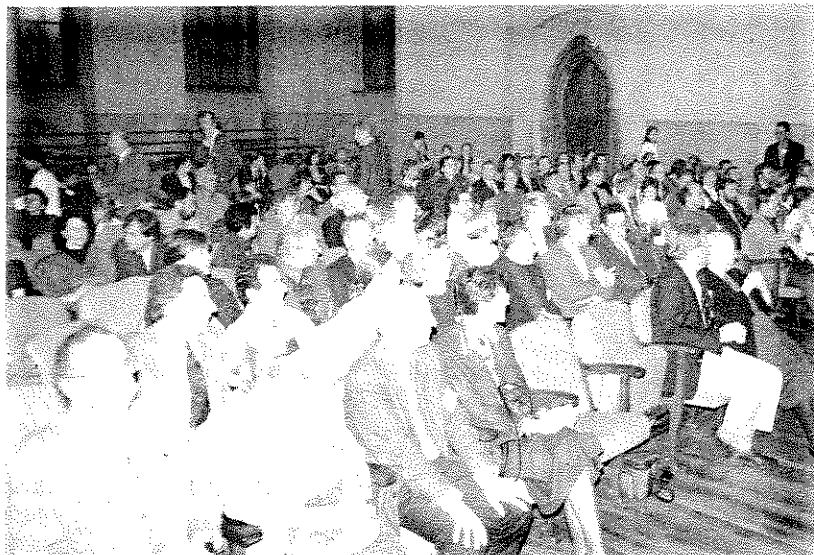
Mike Hohn, the current President of IAMG followed with his welcoming remarks.



Dan Merriam, a founding member of IAMG, previously its President, and currently Editor of Computers and Geosciences, concluded the opening session.

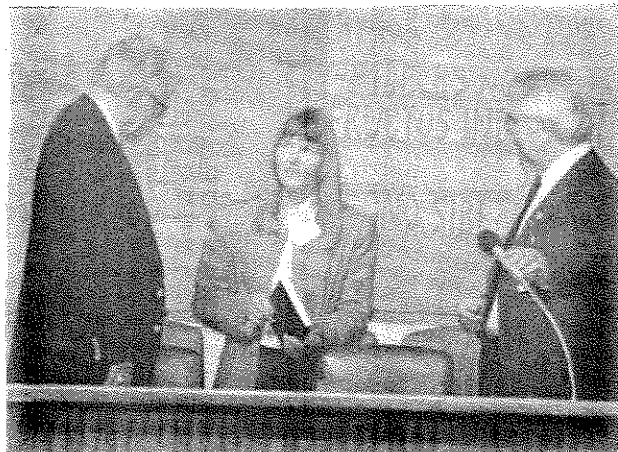
AN EVENING AT CHARLES UNIVERSITY

IAMG members await the Opening Ceremony at Charles University.



Platform
Party
for
Opening
Ceremony

In a touching, surprise moment, **Ute Herzfeld**, center, presents an IAMG Monograph Series to **Dan Merriam** (left), dedicated to him, as **John Davis** (right) looks on.





POTPOURRI

John Davis, Kansas Geological Survey, past President of IAMG, and author of the book, Statistics and Data Analysis in Geology, played a key role, along with **Jan Harff**, in screening abstracts for the Silver Anniversary Meeting.

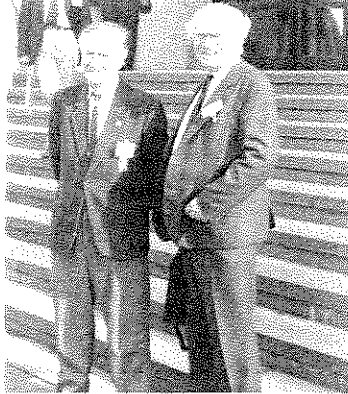
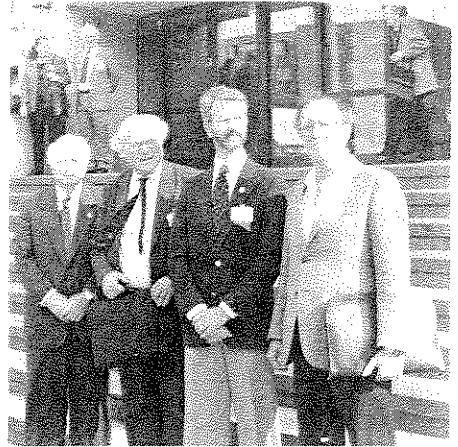
Silver Anniversary Meeting organizers. From left: **Dan Merriam**, **Fritz Agterberg**, **Andrea Forester**, **Peter Dowd**, **Dick McCammon** (behind Peter Dowd), **John Davis**, **Jorges Hruska** (behind John Davis), **Vaclav Nemeč**, **Mike Hohn**, **Jan Harff**, and **John Kork** (behind Jan Harff).



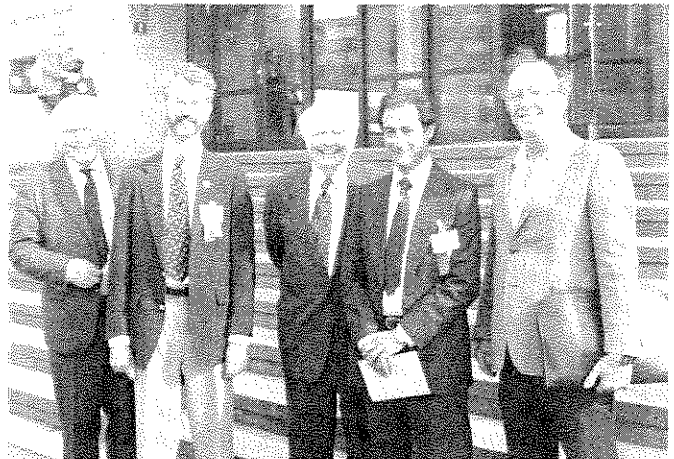
Members of original organizing meeting (August, 1968) of the IAMG: from left, foreground: **H. Tiergartner**, **Dick McCammon**, **Vaclav Nemeč**, and **Dan Merriam**; from left, background: **Fritz Agterberg** and **E.H. Whitten**.

MORE POTPOURRI

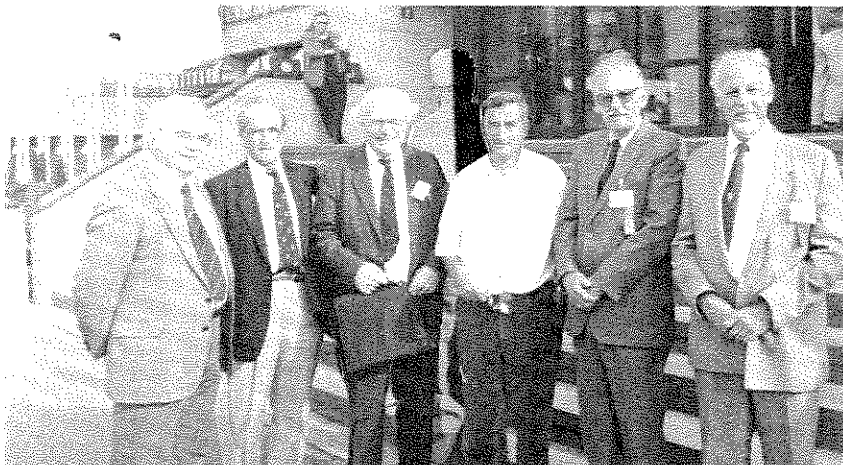
IAMG Officers. From left: **Dick McCammon, Vaclav Nemeč, Mike Hohn, and John Kork.**



Vaclav Nemeč and Jorges Hruska on the front steps of Hotel Krystal.



More IAMG Officers. From left: **Vaclav Nemeč, Mike Hohn, Dick McCammon, Ricardo Olea, and John Kork.**



IAMG Krumbein Medalists: from left: **John Davis, E. H. Whitten, Vaclav Nemeč, Walter Schwarzacher, Dan Merriam, and Fritz Agterberg.**

RECENT ADVANCES IN GEOMATHEMATICS AND GEOINFORMATICS

Special Issue of *Geoinformatics* (Journal of Japan Society of Geoinformatics), containing 30 selected papers presented at the 29th IGC (kyoto, 1992), 246 pp., 18 color figs., 8 photos, published 25 August 1993.
Price: JYE 3,000 / US\$ 30.00 including surface postage and handling. Japanese Yen prices are definitive. US dollar prices are quoted for your convenience only, and are subject to exchange rate fluctuation.

C O N T E N T S J. W. Barbaugh *Simulating sedimentary basins - an overview of the SEDSIM model and its relevance to sequence stratigraphy*; M. Vidal et al. *Computer simulation and image analysis of finite strain measurement by the centroid method*; C. M. Wold & W. W. Hay *Reconstructing the age and lithology of eroded sediment*; S. Yokota *Computer simulation of weathering process in jointed rock masses*; V. Svalova *Mechanical-mathematical simulation of geological structures evolution*; M. Perrin et al. *Computer-aided 3D erosional modeling operated on folded and faulted terrains*; A. M. Idowu *Interpretative seismic modeling case history from the Niger delta*; B. E. Khesin et al. *3-D modeling of gravity and magnetic fields as a final stage of application of effective interpretation system of geophysical data under difficult conditions*; M. Perrin et al. *Visualizing multifolded and multifaulted terrain geometry using computer graphics*; J. C. Tipper *Reconstructing three-dimensional geological system: 1. The topology and geometry of horizons in the subsurface*; J. P. Chiles et al. *3-D geometric modeling of fault and layer systems using GOCAD software: Example of the Soultz Horst (Alsace, France)*; D. Rodionov et al. *Multi-dimensional statistical method for the construction of ecological maps*; A. S. Sinha et al. *On the efficacy of some contouring techniques for coal seam thickness mapping*; X. Sun et al. *Preliminary discussion on the grey characters of concealed form type of deposit (orebody) and its grey forecasting and decision making*; W. R. Janoschek et al. *A database of the content of geological maps (GEOMAP) and the computer-assisted production of the geological map 1:50,000 of Austria as a major part of the Austrian geological information system*; Z. Cai & B. Mackenzie *Computer software system to assess the economic potential of petroleum exploration*; R. I. Kogan et al. *Multi-dimensional statistical modeling of mineral zonality and spatial distribution of ore occurrences*; J. Ghayoumian et al. *Construction and application of database for preparation of engineering geological maps for northwestern Iran*; N. W. Cat et al. *Installation and application of data-management system on PS-Super 386 system for the experimental storing of hydrogeological investigation results*; A. Ioffe et al. *Data base of active faults for the USSR area*; A. O. Idowu *Reservoir fluid differentiation case history from an onshore Niger delta field*; C. Bardinet & G. Gabert *Multisatellite mapping and stereo-relief construction for the International Geosphere-Biosphere Program in the Nepal and Tibet Himalayas*; S. Baxter *Index conodonts of the Lower Carboniferous*; U. Nordlund & C. M. Griffiths *An example of the practical use of chronosomes in quantitative stratigraphy*; C. M. Griffiths & U. Nordlund *Chronosomes and quantitative stratigraphy*; T. Lin & H. Zhu *Physical property of Precretaceous rocks in the Sichuan Basin, China*; A. Bitinas *The application of mathematical methods for stratigraphic correlation of Quaternary deposits*; W. Schwarzacher *Mathematical geology and the development of cyclostratigraphy*; M. Ed. Hohn *Factor analysis as a mathematical tool in the geosciences*; V. Nemeec *Fifteen International meetings of mathematical geologists at the Mining Pribram symposia in Czechoslovakia (1968-1991)*;

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International Association of Mathematical Geology
The 1994 Annual Meeting
October 3-5, 1994
Le Tremblant Club, Mont Tremblant, Quebec, Canada

Call for Papers

You are invited to attend the The 1994 IAMG Annual Meeting in Canada. International Symposium for Mineral Exploration (ISME'94) organized by Mining and Material Institute of Japan will also be held as a part of IAMG'94. This international conference primarily focuses on the use of computer graphics and statistics with special emphasis on mineral and energy exploration, geologic hazards and environmental applications.

Suggested sub-topics and the corresponding technical program organizers for IAMG'94 are:

Resource estimation	R. McCammon, U.S. Geological Survey, U.S.A.
Visualization of spatial geoscience data	R. Kouda, Geological Survey of Japan, Japan
Remote Sensing Applications	A. Rencz, Geological Survey of Canada, Canada
Geostatistics in geologic image processing	J. Royer, C.R.P.G., France
Quantitative methods for geologic hazard	A. Fabbri, I.T.C., The Netherlands
GIS Applications	M. Goodchild, University of California, U.S.A.

Interested contributors should submit a one-page (8.5 by 11 inch or A-4 paper), single spaced abstract of **no less than 200 and no more than 400** words without figures or references before **January 28, 1994**. Notification of your paper's acceptance and an author's kit for camera-ready manuscript will be mailed in **February 1994**. Final camera-ready copy will be due before **June 24, 1994**.

Abstract Due: January 28, 1994
Author Notification: February 1994
Camera-Ready Paper Due: June 24, 1994

International Advisory Committee

Program Organizing Committee

Dr. C. F. Chung, Geological Survey of Canada, Chair
Prof. A. Fabbri, I.T.C., The Netherlands
Prof. M. Goodchild, University of California, U.S.A.
Dr. R. Kouda, Geological Survey of Japan, Japan
Dr. R. McCammon, U.S. Geological Survey, U.S.A.
Dr. A. Rencz, Geological Survey of Canada, Canada
Dr. J. Royer, CRPG, France

Two-day Tutorial workshops prior to the Meeting are also being planned on several topics such as:

Use of GIS in geology
Quantitative resource assessment
Visualization of spatial data
Applications of remote sensing data
Quantitative techniques for geologic hazard zonation
Geostatistical techniques for image processing
Quantitative techniques for spatial data
Use of portable computers for geologic field mapping

Direct your abstracts and inquiries to:

Chang-Jo F. Chung
IAMG'94

Geological Survey of Canada
601 Booth Street, Ottawa, Ontario
Canada. K1A 0E8

Telephone: +1-613-996-3413
Fax: +1-613-996-3726
e-mail: chung@gsc.emr.ca

The conference will take place at Le Tremblant Club at the foot of Mont Tremblant in the Laurentian mountains, the oldest mountain range on Earth. During the early October, you can view the breathtaking scenery of the autumn colour, canoe in one of many lakes, stroll beside rushing rivers, hike through lush forests, or merely stand still and watch the wildlife, as you breathe in the clean Canadian mountain air.

SIAM 1994 Conferences, Meetings, Symposia, Tutorials, and Workshops

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1994

January 23-25, 1994
**Fifth Annual ACM-SIAM
Symposium on Discrete
Algorithms**
Key Bridge Marriott Hotel
Arlington, VA
Organizer: Daniel D. Sleator,
Carnegie Mellon University

April 18-20, 1994
**Conference on Emerging
Issues in Mathematics and
Computation from the
Materials Sciences**
Pittsburgh Vista Hotel
Pittsburgh, PA
*Organized by The Center for
Nonlinear Analysis, Carnegie
Mellon University, and SIAM*
Organizer: David Kinderlehrer,
Carnegie Mellon University

June 15-18, 1994
**Fifth SIAM Conference on
Applied Linear Algebra**
Snowbird Ski and Summer Resort,
Snowbird, Utah
*Sponsored by SIAM Activity Group on
Linear Algebra*
Deadline for submission of title of
presentation: 12/13/93
Organizer: Beresford N. Parlett,
University of California, Berkeley

June 22-25, 1994
**Seventh SIAM Conference on
Discrete Mathematics**
Ramada Classic Hotel
Albuquerque, NM
*Sponsored by SIAM Activity Group on
Discrete Mathematics*
Abstract deadline: 12/20/93
Organizer: William T. Trotter,
Bellcore

July 25-29, 1994
1994 SIAM Annual Meeting
Sheraton Harbor Island East
San Diego, CA
Abstract deadline: 1/24/94
Organizer: Barbara L. Keyfitz,
University of Houston

December 12-14, 1994
**Symposium on Inverse
Problems: Geophysical
Applications**
Tenaya Lodge at Yosemite
Fish Camp, CA
Abstract deadline: 4/25/94
Organizer: William Rundell,
Texas A&M University, College
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10/93

BITS AND PIECES

MAYER RECEIVES STUDENT AWARD

Helmut Mayer, Scripps Institution for Oceanography, La Jolla, California (U.S.A.), received the 1993 Student Award to present his paper, **Calibration of Magnetic Chrons by Milankovitch Cycles: First Results for the Early Cretaceous**, at Prague, IAMG Silver Anniversary Meeting, October 10-15, 1993.

INFORMATION ABOUT STUDENT AWARDS

Congratulations to **Helmut Mayer**. Do you have a student eligible for such an award? Students may apply for such awards to attend any **IAMG** sponsored meeting worldwide in which they have submitted a paper for presentation. They need to have a professional member submit a letter of recommendation, an example of a published paper or a paper submitted for publication, in a **Mathematical Geology** format, and be a student either undergraduate or graduate, or will have been out of school less than one year before the date of the meeting they are requesting funds to attend. Send these materials to: **Dr. C. John Mann, Department of Geology, University of Illinois, 1301 West Green Street, Urbana, Illinois (IL) 61801 (U.S.A.)**.

MEMORIAL

FOR OUR FRIEND, FELIX CHAYES

Felix Chayes, 76, a research petrologist who worked for the Carnegie Institution's geophysical laboratory and for the Smithsonian Institution, died February 28, 1993. From 1947 until retiring in 1986, Dr. Chayes was a research associate and staff petrologist on the staff of the Carnegie Institution's geophysical laboratory. He continued to work for the lab in retirement. Since 1986, he also had done research work for the Smithsonian Institution's mineralogy department.

Dr. Chayes was past president of the Mineralogical Society of America and a 1984 recipient of the Krumbein Medal of the IAMG. He also was a member of the Geological Society of America.

A formal memorial to **Felix Chayes** will appear in a future issue of the journal, **Mathematical Geology**.

James R. Carr/168
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