CALL FOR AWARD NOMINATIONS

The Association invites all members to submit nominations for the 1999 Vistelius Award and the 1999 Chayes Prize. According to the decision of the IAMG Council, in the future every award will presented during its nomination year instead of the following year as it has been the practice recently.

- **Deadline: January 15, 1999.**

Documents which should accompany the proposal:
- a short statement summarizing the relevant qualifications of the nominee
- a curriculum vitae of the nominee.

The Awards Committee is working through electronic mail. Therefore, please use e-mail or diskette to submit documentation in rtf format or as simple text files (ascii code).

e-mail: pawlowsky@etsecpcb.upc.es
postal address:
Vera Pawlowsky-Glahn
Awards Committee Chair
Universitat Politecnica de Catalunya
E.T.S. d’Enginyeria de Camins, Canals i Ports
Departament de Matematica Aplicada III
Jordi Girona Salagado, 1-3, modul C2
08034 Barcelona, Spain

*Guidelines see p. 18*

The IAMG meeting in Ischia brought together geomaticians from all over the globe: old friends, former or present colleagues, newcomers, young and old. Some even brought their families along, adding another, pleasant side to the meeting. What a wonderful opportunity to get together with people of similar scientific interest to compare notes, look at interesting problems or just reminisce in pleasant and scenic surroundings. The IAMG conferences have a very important function: to provide a means of connecting for people who do not usually have that possibility in the normal working environment. This reminded me of the special interest group I saw listed at the JSM Meeting in Dallas (see Conference reports p. 19). At the time it struck me as odd if not funny to have a meeting of “Isolated Statisticians”. Yet, after seeing the geomathematicians get together I suspect that we have a problem of isolation for many of our members as well. If you are not in an institution dealing specifically with quantitative geology or geomathematics you probably won’t have someone next door to chat with about specific geomathematical problems. There may be the telephone or the e-mail but that is still not the same as discussing a problem face to face over a cup of coffee. So, that’s one of the important functions of our annual meetings: to provide a place for meeting like-minded scientists and to give a feeling of connectedness, at least for the folks who are “isolated geomathematicians”. Let me know if you feel that isolation is in fact an issue in mathematical geology.

The IAMG meeting is apparently not just a place where members of the Association gather. This is borne out by the fact that only ca. 30% of the attendees in Ischia belong to the IAMG. Even if one discounts the large number of Italians who took advantage of the meeting being in their own country that still leaves 50% of the registrants not being affiliated with IAMG. This is good news - we don’t want to be a closed society. The more people we can attract the better for the diversity of presentations, and the more opportunities we have to increase the number of memberships. The level of membership has been stagnant and in fact slightly decreasing which has given rise to concern among the IAMG leadership. They are actively looking for ways to reverse this trend through more advertising, more visibility at conferences, and backtracking of elapsed memberships. If you have good suggestions send them along or ask your fellow scientists to join (application blank on p. 15).

Harald S. Poelchau
Letter to the Editor

The August Issue of Computers & Geosciences is - again - a special issue on multimedia/internet applications. Although I endorse the use of these “new media,” I think, that Computers & Geosciences is on the verge of over-promoting these topics. The use of multimedia and internet applications is as common for many people as the use of other medias, but there are many useless applications. These are solely considered justified by the use of these “new media.” The multimedia issues of C&G are - in my opinion - already moving dangerously in this direction. I would like to see C&G more to be a counterpart to Mathematical Geology, by addressing computational issues in the geoscience, instead of jumping to every “hype”.

Ulrich Zier
RWTH Aachen

Note from the Editor:

We think that this issue may be something that other members of IAMG have opinions on and welcome comments and suggestions on this topic. We will forward any communications to Frits Agterberg, the chairman of the Publications Committee. Also, Graeme Bonham-Carter, editor of C&G is very interested in this issue and will publish an editorial in the next C&G to address the question of C&G content. (see p.5)
Have you ever wondered where our members work?

The Association has not run a survey to answer the question properly, but, after discarding about 33% of the members’ mailing addresses without any clue of the name or nature of the employer—such as plain home addresses—a quick look at the remaining 351 postal addresses gave the answer summarized in the first pie chart:

Research includes academics, centers, geological surveys, institutes, and laboratories; service comprises consulting and service companies. Considering that our activities are not restricted to our members, a different but related group of people is that consisting of individuals who participate in our activities, forming what may be regarded as a virtual membership, partly made up by true members. The following is the place of employment for the authors of the papers presented at the last IAMG’98 conference:

**IAMG Members**

- Universities: 54%
- Research: 33%
- Service: 11%
- Industry: 6%

**Presenters and coauthors at IAMG’98**

- Universities: 54%
- Research: 39%
- Service: 3%
- Industry: 4%

and for the authors of the most recent papers in our journals,

**Computers & Geosciences (vol. 24, 1998)**

- Universities: 78%
- Research: 19%
- Service: 1%
- Industry: 2%

**Mathematical Geology (vol. 30, 1998)**

- Universities: 73%
- Research: 19%
- Service: 6%
- Industry: 2%

**Nonrenewable Ressources (vol. 6-7, 1997-1998)**

- Universities: 47%
- Research: 47%
- Service: 5%

The obvious conclusion from the examination of these statistics is that industry is almost completely absent from all aspects of the life of our organization. People working in industry do not belong to IAMG, they do not present papers at our conferences, nor do they send contributions to our journals, limiting our reach and membership. Our basic constituency is made up primarily of professors and their students, followed by research scientists. A distant third are members in service companies including consultants. Ironically, none of the members of the IAMG Executive Committee—President, Vice President, Secretary General and Treasurer—works at a university.

Low industrial membership at IAMG is not new. This has been the case since the foundation of the Association in 1968 when it was more understandable that the new field of mathematical geology was mostly the interest of curious minds at research centers and universities. Today this reality is more difficult to accept. Although the annual number of graduating students with a background in mathematical geology has never been high, the cumulative number of those going to work to industry over the last three decades does amount to several times our current membership of about 500 individuals, let alone additional thousands of individuals who have received in-house training, at a time when computers are taking over the world. It is not that quantitative methods in geology are not used in industry. It is only that people in industry do not care about IAMG.

To attract the participation of people from industry, it is necessary to break out of a vicious circle. People join the Association mostly to enroll at our conferences at a discount rate or to read our journals. Lack of involvement of people from industry in our activities results in that our journals and conference proceedings do not have enough papers of interest for people in industry, and people in industry do not join our organization because they feel that our organization has nothing to offer to them.

There are already two major initiatives in progress that directly or indirectly should result in an increase of participation in our Association’s activities by people from industry:

(a) The new Editor-in-Chief of Natural Resources Research (formerly Nonrenewable Resources), the Publications Committee, and the Council have decided that to increase readership of our newest journal and minimize overlapping with the traditional coverage by the other two journals, Natural Resources Research should focus on the application of mathematical geology to the solution of practical problems, such as successful case studies demonstrating how quantitative methods—not necessarily novel—can make a positive difference in addressing geological problems.

(b) Encouraged by Council, the organizers of the coming conference in Trondheim have decided, for the first time in our annual meetings, to offer a program strongly oriented toward problems in the petroleum industry, the largest industrial employer likely to be interested in mathematical geology. About half the papers and sessions will be dedicated to petroleum mathematical geology, with a strong presence of conveners, participants, and sponsors from industry.

It is the hope of Council that this reorientation of activities will result in an expanded base and fulfillment of our primary mission to promote mathematical geology more equally balanced between science and technology, without abandoning the traditional interest of IAMG for research on cutting edge methodology.

Your comments and ideas are welcome!

Ricardo Olea

The Mathematics of Measurement is a historical survey of the introduction of mathematics to physics and of the branches of mathematics that were developed specifically for handling measurements, including dimensional analysis, error analysis, and the calculus of quantities.

Using an interdisciplinary approach and the insights provided by historical studies, Roche clarifies well-known difficulties in the mathematics of measurement, some of which have plagued scientists for over a century.

The book is primarily intended for physicists and scientists from related disciplines such as mathematicians or meteorologists; however, the level and breadth of the treatment should also make it interesting for advanced undergraduates in these fields, as well as for historians and philosophers of science.


This book contains 21 contributions, each written by an expert in the area of sedimentary basins. The first part is devoted to the methodology used for these studies, in particular physical measurements (well logging and seismic) and synthesis of subsurface data. The second part presents specific case histories, each corresponding to a particular type of basin.


Earth System Analysis is a science in statu nascendi, the nature of which is transdisciplinary to a degree never seen before. Thus, the book describes not only the initial state of this new science, but also delivers a multifaceted integration of these. The resulting master paradigm, namely, the coevolution of nature and anthroposphere within a geo-cybernetic continuum of processes, is based on a structured manifold of partial paradigms with their specific ranges. The didactic quality of this book has been improved by many allegoric illustrations. Most importantly, all this has to serve the scientific foundation of a meaningful, safe, and efficient environment and development management for solving the most burning questions concerning humankind and its natural environment.


Modelling Soil Erosion by Water describes the current status and future trends of soil erosion and sediment transport research. It examines the processes responsible for soil erosion and the techniques available to model them. The book also identifies key areas for future research, and provides a comprehensive list of references. The target audience is soil scientists, hydrologists, and environmental managers.


The Quaternary, which spans approximately the last 2 million years, is characterized by dramatic environmental changes, commonly known as the “ice age”. During this period, man with his manifold cultures evolved. Attempts to date these events as accurately as possible have been improved by modern technology. The broad spectrum of physical and chemical dating methods now available for dating human artifacts and Quaternary rocks are becoming increasingly difficult to grasp. In this book the various chronometric techniques are comprehensively and intelligently treated. Through the use of numerous case studies, taken from archaeology and geology, the possibilities and limitations of these techniques are demonstrated.


Fluid flow is fundamental to many geological processes, including the development of natural resources of hydrocarbons, ore deposits and water. Modelling of these processes requires information on the timing of fluid flow events and the interactions of fluids with surrounding rocks. In addition to isotopic methods, a diversity of approaches has been developed to assess the timing of events, including palaeomagnetism, fission track analysis and fluid inclusion studies. Many techniques also provide information on the duration of fluid flow events. These papers in this volume represent the range of approaches to determine the dating and duration of fluid flow events and fluid-rock interaction. The first overview of methods of dating fluid flow: examples of commercial application of dating methods; explanations of methodology; suitable for advanced teaching and with extensive bibliographies. This volume will be of interest to geologists in the hydrocarbon and minerals industries and in academia, and to geochemists and hydrogeologists.

IMA G financially supported the NATO Advanced Studies Institute:

DEPOSIT AND GEOENVIRONMENTAL MODELS FOR RESOURCE EXPLOITATION AND ENVIRONMENTAL SECURITY

6 -19 September, 1998, Hungary

Director: Prof. Andrea G. Fabbri (ITC, Geological Survey Division, Enschede, The Netherlands)
Co-Directors: Dr. Gabor Gaal (MAFI, Geological Institute of Hungary), Dr. Richard B. McCammon (U.S. Geological Survey, Reston, VA)

The Advanced Study Institute (NATO ASI 971295) provided an unique opportunity for internationally-recognized researchers from the disciplines of geology, geophysics, geochemistry, remote sensing, economics, biology, mining engineering, resource analysis, mathematics and statistics to join together to present the most up-to-date contributions in geoenvironmental modeling as it relates to resource exploitation and environmental security in the developed and developing countries worldwide. The presentations were made to 65 participants from 32 different countries. The participants were selected based on their interests and qualifications in the general area of the geoenvironmental sciences.

The presentations centered around 4 major themes, geoenvironmental models, GIS methods and techniques, assessment and management, resource policy and East-West relationships. Under each theme, presentations were made to introduce the topic and these were followed by specific applications in which the researcher had expert knowledge.

Geoenvironmental models describe, predict or simulate processes related to the anthropogenic flow of bulk materials to and from the earth. The discovery of new mineral deposits is not a problem. The problem will be to obtain proper environmental permits to mine. The art of mineral deposit modeling is far ahead of environmental modeling. To move ahead in this field, several areas of research were identified, namely, investigating the long-term persistence of environmental impacts by studying very old mines in ancient mining regions around the world, comparing environmental impacts arising from the exploitation of polymetallic ore deposits in different environmental settings, and standardizing the formats of geoenvironmental models needed to convey the message to multiple levels of interests to those involved in geoenvironmental issues.

It is possible that there are instances of copyright violations which have been avoided by the publication of an apology in the journal concerned, in order to set a good example. The Publications Committee decided that lack of experience was the problem. Both editors disagreed and concluded the affair by rejecting the article from publication in their journals.

Earlier this year, an IAMG member documented a case of alleged plagiarism which was handed to the Publications Committee for consideration. This author had read an article in one of our journals in which a method previously developed by him and colleagues was not only used without proper references, but parts of sentences were repeated verbatim without any acknowledgment of the sources. We responded to this case by apologizing to the editor of the other journal. The "new" article admitted to using the earlier work extensively during their research and report preparation, but had omitted to include the corresponding references. The Publications Committee decided that lack of experience was the problem. This was discovered before it was too late. It is remarkable that, afterwards, one of the authors agreed to justify double submission by stating that this is allowed when the readerships of two journals are very different. Both editors disagreed and concluded the affair by rejecting the article from publication in their journals.

Butler

In a recent letter to the IAMG Newsletter, Zier (1998) has questioned whether the recent proliferation of special issues of Computers & Geosciences dealing with Internet-related topics may not be diverting the journal from its principal focus. This is, perhaps, a point of view that may be shared by others, so this may be a good opportunity to invite debate amongst our readers about the current editorial direction of the journal. Basically all of the recent special issues are not affecting the number of "regular" papers, so the net result is that the journal still serves the traditional core readership, yet provides some papers that will appeal to a larger audience.

The focus of the journal is stated on the inside front cover as "(a journal) devoted to the publication of papers on all aspects of geocomputation and to the distribution of computer programs and test datasets". From the start, the journal was always considered to be much more than simply a place to publish code, and with the development of computing technology, papers in the journal have reflected a diverse and developing body of theory, methodology and practical application of computation to a host of geoscientific problems. The general focus of the journal has not deviated over the years, but the needs of the software developer and user have changed drastically with the evolution of information technology. The content of the journal has evolved naturally to reflect these changes, with development of computing languages, operating systems, computer graphics, hardware and digital communication.

The practice of providing digital instead of printed code was started in 1995, using a server under the control of IAMG. The programs on the server are accessible to the general public, not simply to journal subscribers. The success of this change is now evident in the number of downloads of individual programs per month (as monitored by our Webmaster Eric Grunsky), currently between 1,000 and 1,500, or about 15,000 per year. About half the published papers have associated code on the server, and we now publish about 100 papers per year.

In order to counter the reduction in pages, and maintain the present 10 issues per year, we decided to expand the range and scope of our traditional papers by increasing the number of special issues. Some of our recent (and forthcoming) special issues contain papers dealing with Internet-related topics. However, this should not divert the journal from its principal focus. This is, perhaps, a point of view that may be shared by others, so this may be a good opportunity to invite debate amongst our readers about the current editorial direction of the journal. Basically all of the recent special issues are not affecting the number of "regular" papers, so the net result is that the journal still serves the traditional core readership, yet provides some papers that will appeal to a larger audience.

Overall, I believe that the journal benefits considerably from these changes. The specialist code developer gets to read as many papers as before, but we attract a new circle of readers and subscribers with expanded access to new areas and with papers for a more general audience. At a time when journals are losing subscriptions because of smaller library budgets, a broadening of the reader base seems to be prudent. However, I and my fellow editors welcome constructive comments and suggestions from readers about this policy.

IAMG Newsletter No. 57

Computers & Geosciences 1997 Best Paper Award

The Associate Editors have voted the Best Paper Award for 1997 to Terry Smith (Department of Geography, University of California Santa Barbara) and coauthors B Birnir, G E Merchant for a two part paper:

Towards an elementary theory of drainage basin evolution: I: The theoretical basis; II. A computational evaluation.

Computers & Geosciences, vol.23, no.8 pp. 811-849

This years evaluation was conducted by Associate Editor John Butler.

Editorial (excerpted from a draft for C&G vol. 25, no 1)

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Graeme F. Bonham-Carter
Geological Survey of Canada

IAMG Jour-nal Report

Copyright Alert!

Authors and referees of articles are asked to bring cases of possible copyright violation and plagiarism in IAMG publications to the attention of the IAMG Publications Committee (c/o F. Agterberg@gsc.nrcan.gc.ca). During 1998, the Committee has been dealing with the following two cases.

Recently, one of our editors received a notice from one of the two referees asked to review an article submitted for publication in his journal that this referee already had received and reviewed the same article, but for another journal. Text and illustrations were identical, only the title was different. Obviously, this was a case of "shilling" or attempting to publish the same article twice, without knowledge of the editors. It is in violation of guidelines to authors and copyright laws. Fortunately, this case was discovered before it was too late. It is remarkable that, afterwards, one of the authors agreed to justify double submission by stating that this is allowed when the readerships of two journals are very different. Both editors disagreed and concluded the affair by rejecting the article from publication in their journals.

- 5 -
Interview: Dr. Irene H. Chayes

At first sight she appears to be a small, unassuming, elderly lady, friendly, who talks in a small voice. This is the widow of famous (among mathematical geologists, petrologists and statisticians), widely known and beloved Felix Chayes. She looks frail but has amazing physical endurance for someone her age. Having the opportunity, she insisted on hiking up to the crater of Vesuvius during the second field trip of the 4th Annual Meeting of the IAMG in Ischia (Italy) and, on the same day in the afternoon, following the fleet-footed Italian guide through the entire length of the ancient, excavated city of Pompeii.

Over lunch at the nice hotel in Ischia where the IAMG’98 conference was held, we talked with Irene to get to know the better half of Felix Chayes and to find out what moved her to donate a substantial amount of money for an award named in honor of her husband. In her simple and direct way she said that the idea came to her out of the blue some morning after breakfast, perhaps because Felix had been honored in 1986 by IAMG with the award of the Krumbein medal.

How had Felix gotten into petrology? He actually started in law school, urged by his mother, but after taking a course in geology he changed his goals. As a student Felix had received an AEC scholarship together with Dr. H. S. Yoder of the Geophysical Lab in Washington. They got to know Dr. Ernest S. Shepherd at the GL. Shepherd was a role model for both. He practically lived in his lab and he had a cot there to spend the night. Felix had always aspired to have a job at the GL some day which in fact happened finally after World War II.

So, how did she meet Felix, her future husband? Both studied at CUNY (City University of New York). She had been assigned a review of essays on D. H. Lawrence and published the result in an undergraduate journal. Felix had written an essay on D. H. Lawrence and was shown her article which piqued his interest in the young author.

She told us that her interest in literature and reading goes back all the way to elementary school: she couldn’t wait to get into high school because only then could she get a readers card for the library where all the good books could be found.

Did Irene work with Felix? No, the surprising answer was that they kept their careers quite separate and individual. Irene was an English major and specialized in English literature of the romantic period. She took three degrees in English literature, separated by varying times due to the war and career moves by Felix. Proudly she mentions that for all her college work she never paid a penny; she always had scholarships. She taught at Roanoke, SUNY Binghampton and U. of Maryland, usually trying to stay not too far from Washington, but still having to commute. Her major interest is still William Blake on which she has written at various times of her long career in literary criticism. Some of her pieces on Blake - art history and his visions - were published in the short-lived „Blake Journal“. Traveling with her husband allowed her to work on that aspect of her research: seeing the works of Michelangelo and understanding Blake’s imagery. She is still working and writing essays on Blake and on James Joyce, another of her subjects.

Did Felix share her interest in literature? As a scientist he didn’t have much time to read, but he enjoyed music of all kinds. He played recorder and was a member of the American Recorder Society in Washington and liked to go to concerts rather than listen to the radio.

Irene traveled with Felix frequently; the trips were always a combination of geological work or meetings for him and cultural interest for her in combination with her literary interests. They went to England, France, and from Nice by boat to Florence. At other times they journeyed behind the iron curtain - from Vienna to the CSR where they met a dissident colleague. And several times they visited Italy including Naples and the Amalfi coast - the last time in 1978. So her visit to Ischia, where she was invited to by IAMG to attend the annual conference and present the Chayes price to Jose Brändle representing the Subcommission on Data Bases in Petrology, revived many old memories.

H.S.Poelchau, V.Pawlowsky, T.Jones

Starting with IAMG Newsletter 56, Webmaster Eric Grunky has loaded a copy of the Association Newsletter on the IAMG web site (www.iamg.org). We are planning to do the same with this Newsletter (#57). This pdf file can be downloaded and viewed or printed with Adobe Acrobat Reader (available free from the Adobe website: http://www.adobe.com/acrobat/readstep.html).

We are considering whether some time in the future this method of distribution could or should replace mailing the Newsletter as hardcopy. We are therefore interested in hearing your opinion or preference. Contact us at h.poelchau@fz-juelich.de (Newsletter Editor) or grunky@enr.gov.ab.ca (webmaster).

<>
IAMG Newsletter No. 57

Member News

Where are they now? Past and present in the 30th year of the Association

Three of the 20 original members of the IAMG Organizing Committee that met at the 23rd International Geological Congress (IGC) in Prague in 1968 were seen at the Annual Meeting of the IAMG on the Island of Ischia (Italy). The photo below shows: (left to right) Dan Merriam [USA], Richard Reymnt [Sweden], and Hannes Thiergärtner [Germany, then the DDR]. The Committee met on the 22nd of August, 1968 and formally ratified the statutes and bylaws submitted by an ad hoc committee, which had been organized and chaired by Reyment. The IAMG was constituted as an affiliated Association of both the International Union of Geological Sciences (IUGS) and the International Statistical Institute (ISI). Reyment wrote the articles patterned after other affiliated societies of the IUGS and ISI and because of his foresight and leadership is considered the ‘father of the IAMG.’ He served as the first Secretary General and the second President. The first president, nominated by Reyment, was Andrew Vistelius, now deceased, of the former USSR. Merriam was charged with establishing a journal and was the first editor of the new journal founded in the Association’s name. It was to be known as the Journal of the IAMG (later Jour. Math. Geology and now just Mathematical Geology). Merriam then served as the second Secretary General and the third President. Thiergärtner is known as the Journal of the IAMG (later Jour. Math. Geology and now just Mathematical Geology). Merriam then served as the second Secretary General and the third President. Thiergärtner is currently editor of the new journal Mathematische Geologie published by CPress in Dresden (Germany).

Dan Merriam
IAMG Archivist

In August, Olivier Dubrule, IAMG Councilor, took on a new position at Elf Exploration Production in Pau, as Manager of “Shared Technologies for Geosciences”. His successor at the Elf Geoscience Research Centre in London is Dominique Marion. Olivier’s new address is:
Olivier Dubrule
Elf Exploration Production
Avenue Larribau
64000 Pau, France
Phone: 33 (0)559836728, Fax: 33 (0)559835743
email: olivier.dubrule@elf-p.fr

New Geomathematician!?

Ute Herzfeld (IAMG Councilor and 1992 President’s prize recipient) and Helmut Mayer report the birth of a little girl - Almut Dana Walburger - on June 28, 1998 in Boulder, Colorado. Congratulations!

IAMG Annual Meeting in Ischia, Italy

In October the Annual meeting of the IAMG was held on the beautiful Isola d’Ischia in the Gulf of Naples. Some 220 people from all around the world attended the meeting, about 3/4 from Europe and 1/6 from North America. The setting was the luxury hotel Continental Terme on the outside of the town of Ischia Porto (see photos on pp. 9-12).

The meeting was opened on Monday morning by IAMG president Ricardo Olea and Roberto Potenza and Giuseppe Nardi, the Italian conference chairmen, welcoming the audience to Italy and the 4th annual IAMG meeting. Olea then introduced the first of the five keynote speakers. George Christakos from the University of North Carolina, who presented a talk on BME (Bayesian maximum entropy). Other keynote lectures were given by the recipients of the four IAMG awards, distributed over the three days of the conference. Jose Brändle (Universidad Complutense de Madrid) gave a talk on the Subcommission on Data Bases in Petrology, founded by Felix Chayes, which is being honored this year with the 1997 Chayes award for excellence in research in mathematical petrology. Gert Jan Weltje (Delft University), recipient of the Vistelius Medal, addressed data and models for the Baltic Sea.

In four parallel sessions 118 papers were given and, in addition, 35 posters were presented during the three days of the conference. At the same time there were excursions for the accompanying guests to Naples and on the Island itself.

The four awards were presented in a ceremony before the conference banquet (see photos on p. 10 and 11). The festivities were preceded by colorful folklore dances and music traditional in this area of Italy. The banquet included a cake cut for the 30th birthday of the Association (see photo). Entertainment was provided by a small combo of strolling musicians with a wonderful Italian operatic tenor singing all kinds of favorites. At some point he was joined by two tenors from the audience.

As in Barcelona, the organizing committee under the able direction of Antonella Buccianti produced an impressive two volume set of Proceedings handed out during registration and packaged in a very modern, plastic, see-through briefcase (a design like an iMac).

At the closing session on Wednesday evening Richard Sinding-Larsen announced the venue for next year’s meeting in Trondheim. Details are printed on pages 13-15 of this Newsletter.

On the day after the meeting three workshops were held: “Spatio-temporal analysis of natural systems” by Gert Jan Weltje (Delft University), recipient of the Vistelius Medal, addressed data and models for the Baltic Sea.

New Geomathematician!?

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- 8 -
The main lecture hall

Coffee time for S. Rehder, U. Zier and G. Weltje

Education Committee: Tom Jones, John Tipper (Chairman), Margaret Armstrong

The Council meeting: Jan Harff, John Tipper, Dan Tetzlaff, Vera Pawlowsky, Tom Jones, Ricardo Olea, John Davis, Carol Gotway Crawford, Frits Agterberg, Tetsuya Shoji (left to right)
The Ischia Chairpersons: G. Nardi, A. Buccianti, R. Potenza

Folklore presentation at the awards banquet

Cake cutting (Mrs. Harff) for the 30th Anniversary of the founding of IAMG. L to R: A. Buccianti, R. Olea, J. Harff.

M. T. Schafmeister with son David and R. Ondrak

K. Stattegger and V. Pawlowsky

E. N. Tsheremissina

Andrea Fabbri
The great awards ceremony

Gerd Jan Weltje is given the Vistelius Award by Vicepresident Carol Gotway Crawford

Jan Harff receives the Krumbein Medal from President Ricardo Olea

Jose Brändle shows the Chayes Prize presented to him and the SDBP by Mrs Chayes

John Doveton being given the Griffiths Award by Secretary General Tom Jones
Post-Conference Field Trips

On the two days following the meeting, our Italian hosts offered four fieldtrips of general and geological interest. The first day included a visit of Ischia Island (morning) and underground of Naples (afternoon) which attracted 19 persons. A second excursion with 23 participants (see photo below) went to Capri to circumnavigate the island in a small skiff and marvel at the well exposed cliffs of the Jurassic and Cretaceous carbonate sequence. The geological setting was explained in detail by our able field guides Filippo Baratello (third from left in front) and Marzio Piscitello. The blue grotto couldn’t be visited but most of us survived the rough seas and enjoyed the great views. The excursion continued with a landfall for lunch with wine from Capri in blue bottles in the ancient 13th century museum Centro Caprense, followed by a walk to fossiliferous outcrops overlooking the scenic bay of Marina Piccolo.

A third excursion went to the Sarno landslide area south of Naples which was the topic of several talks and digital image presentations. The landslides in this area are so recent that on the day before the trip police made it off limits to all traffic because of imminent danger due to heavy rainfalls. Seven unafraid geologists took part in this venture.

On the last day (Friday) a general field trip to visit the Vesuvius crater and the archeological site of Pompeii attracted a total number of 72 persons. The buses took us from the Naples harbor to the end of the serpentinous road near the top of the volcano. From there it was a 20 minute walk to edge of the crater with its many colors and even some plumes of steam. The view of the surrounding country across Naples bay and over to the Sorrento peninsula was enchanting. Our guide, Leo Melluso (photo on right), gave us an extensive explanation of the history of the volcanic activities and the various rock types to be found here (see photo). The walk around the crater path culminated in a box lunch by the buses. In the afternoon the group was taken to the famous, ancient, excavated city of Pompeii located just below the looming Vesuvius mountain. After some initial confusion we ended up with two guides, one explaining the ubiquitous phallic symbols, the other, Prof. Pescatore, the volcanic geology under and around the place showing us the lapilli and ashes that fell on Pompeii in August of 79 AD. They took us on a three hour whirlwind tour through this amazingly large and interesting historic monument over cobble stone streets through beautiful villas (even a house of ill repute) and to the necropolis outside the city walls where some of the plaster casts of the perished inhabitants of Pompeii were displayed.
IAMG’99 Trondheim
Annual Meeting of the International Association for Mathematical Geology

The Annual Conference of the International Association for Mathematical Geology, IAMG’99, will be held at Royal Garden Hotel, Trondheim, Norway, August 6-11, 1999.

CONFERENCE CHAIRS
Richard Sinding-Larsen, Department of Geology and Mineral Resources Engineering, Norwegian University of Science and Technology, NTNU, Trondheim, Norway.
Eivind Damsleth, Saga Petroleum, Norway.
Pierre Goovaerts, University of Michigan, Ann Arbor, USA.
Ricardo Olea, Department of Petroleum Engineering, University of Texas, Austin, USA.

INTERNATIONAL SCIENTIFIC COMMITTEE
Eivind Damsleth, Saga Petroleum, Norway.
Pierre Goovaerts, University of Michigan, Ann Arbor, USA.
Ricardo Olea, University of Texas, Austin, USA.
Ole Torsæther, Department of Petroleum Engineering, NTNU.

CONFERENCE SECRETARIAT AND OFFICIAL ADDRESS
IAMG ’99
c/o Stephen Lippard
Department of Geology and Mineral Resources Engineering
7034 Trondheim, Norway
Phone: 47 73 594828, Fax: 47 73 594814
E-mail: iamg99@geo.ntnu.no
http://www.geo.ntnu.no/igb/iamg99/text.html#program

CONFERENCE LOCATION
The conference site will be the Radisson, Royal Garden Hotel, a first-class hotel located along the Nidelv river, with 297 rooms and 9 suites. The hotel is located within a short walking distance of the city centre and the Nidaros Cathedral.

The conference has been scheduled in a period which is convenient for the long nordic nights and favourable weather conditions (15-20°C).

CONNECTIONS
Værnes airport is served by both domestic and international (direct from Copenhagen) flights. There is a connection by bus from the airport to the hotel. Trondheim is also connected to Stavanger and Bergen by means of a coastal steamer (Hurtigruten).

OBJECTIVES OF THE CONFERENCE
Previous Conferences of the same series have been held at Mount Tremblant, Canada (1994), Osaka, Japan (1995), Beijing, China (1996), Barcelona, Spain (1997), and Isola d’Ischia, Napoli, Italy (1998).

This international conference will focus primarily on quantitative analysis related to the petroleum industry. Other topics relevant to mathematical geology (see below) will also be included.

The conference is sponsored by the International Association for Mathematical Geology (IAMG) and by the International Union of Geological Sciences Commission on Fossil Fuels (IUGS-CFF) and the Department of Geology and Mineral Resources Engineering at the Norwegian University of Science and Technology (NTNU). It will consist of 3 days devoted to technical sessions, preceded by 2 days of tutorial workshops and excursions to areas of scientific and tourist interest. A full program for accompanying guests and a conference banquet is also planned.

TECHNICAL PROGRAM
The IAMG’99 will start with workshops on Friday, 6 August and the subsequent technical program will start Sunday, 8 August, at 6 p.m. with an official reception, followed by three days of plenary and parallel technical sessions. The conference will be divided into plenary sessions Monday morning and Wednesday afternoon, opened by keynote lectures given by invited speakers. Monday afternoon to Wednesday lunch will comprise four parallel morning and afternoon sessions.

TECHNICAL SESSIONS (and Convenors)

Topics related to petroleum industry
- P1.0 Mathematical and statistical data analysis in the appraisal of fossil fuels (Richard Sinding-Larsen)
  P1.1 Remote sensing (satellite, seismic, gravimetric and magnetic)
  P1.2 Bayesian and multivariate methods in exploration and resource assessment
- P2.0 Petrology and mineralogy (André Journaux)
- P3.0 Numerical modelling of basin formation and resource assessment (Stephen Lippard and Cedric Griffiths)

- P3.1 Thermal models: Prediction of maturation-migration and accumulation of hydrocarbons
- P3.2 Quantitative stratigraphic modelling (forward/inverse)
- P3.3 Tectonostratigraphic modelling
- P3.4 Paleotopography and bathymetry
- P3.5 Seismic modelling: application of outcrop analogues
- P4.0 Modelling of petroleum reservoir architecture (Arve Næss and Oddvar Lia)
- P4.1 Data integration in stochastic reservoir modelling
- P4.2 Modelling sedimentary and diagenetic heterogeneities in hydrocarbon reservoirs
- P4.3 Modelling faults and fractures
- P4.4 Assessing uncertainty in reservoir studies - Bayesian updating of modelling parameters
- P4.5 Pixel- and object-based techniques in modelling of reservoir heterogeneities: a controversy?
- P5.0 Image analysis-techniques in reservoir studies (Ole Torsæther)
- P5.1 Image analysis of thin sections
- P5.2 Understanding pore scale models
- P5.3 Extending 2D pore scale image analysis techniques into 3D
- P5.4 Analysis of 3D reservoir parameters applying image analysis technology
- P5.5 Image analysis of reservoir scale seismic data (coherence cube technology)
- P5.6 Application of image analysis techniques in the use and characterisation of outcrop analogue data

- P6.0 Methods for evaluating the scale-dependence of permeability (upscaling) (Philip Ringrose and Jerry Jensen)
- P6.1 From core to full field model. Multistep upscaling - what really matters
- P6.2 Cores and minipermeameter data in upscaling studies
- P6.3 Interrelations between small-scale variograms and varigrams of large-scale data

General topics - methodology
- G1.0 Time-space systems in the earth sciences (George Christakos)
- G1.1 Three-dimensional geological environment simulation
  - continued on next page
**IAMG Newsletter No. 57**

IAMG’99 Trondheim - cont’d from p.13

G1.2 Multidisciplinary and new avenues in data integration
G1.3 Geographic Information Systems and their use
G1.4 Prediction and prevention of geological hazard
G1.5 Mathematical characterisation, modelling and visualisation of geological bodies
G1.6 Statistical analysis of 3-dimensionally oriented data
G1.7 Geostatistical techniques for interpreting multivariate spatial information
G1.8 Noise removal from space-time data
G1.9 How to tackle the problems of spurious correlation
G1.10 Spectral estimation in space and time domain
G1.11 Robust regional-residual separation of data
  • G2.0 Statistical Methods for earth science data analysis (John C. Davis)

G2.1 Neural networks and fuzzy set theory
G2.2 Multivariate analysis
G2.3 Point processes
G2.4 Artificial intelligence
G2.5 Bayesian and other probabilistic methods
G2.6 Fractals and non-linear dynamics
G2.7 Model selection and parameter inference in geological prediction
G2.8 Image analysis
G2.9 Compositional data analysis
G2.10 Geostatistics, including robust methods and closed form solutions
G2.11 Methods for determining the significance of spatial dependence
G2.12 Numerical modelling and conditional simulation
  • G 3.0 General mathematical geology (Carol Gotway)
  G 3.1 Engineering geology
  G 3.2 Environmental geology
  G 3.3 Marine geology
  G 3.4 Sedimentary geology
  G 3.5 Exploration geophysics
  G 3.6 Solid earth geophysics

WORKSHOPS
The first two days of the conference will be devoted to one day tutorial workshops and excursions.
The topics of the tutorial workshops will be:
- W1 Exploration decision support and decision support systems
- W2 Quantification of hydrocarbon reserves and resources
- W3 Current problems and future developments in multivariate analysis
- W4 Critical factors for reducing time in reservoir modelling
- W6 Critical factors for reducing time in reservoir modelling
- W7 Uncertainty assessment for reservoir heterogeneity and recovery
- W8 Modelling of sequence stratigraphical stacking patterns
- W9 Exploiting global image and map internet resources for knowledge gathering and decision support
  • These workshops are described in more detail on the conference website

CALL FOR PAPERS
Submitted contributions will be accepted for oral, poster or software presentation after revision by at least two referees. The Organising Committee considers the posters and software presentations as important as oral presentations, and no distinction will be made in the publication of both types of contribution in the proceedings volume (see below). Poster exhibitors will attend their posters/demo for one hour from 13.30 to 14.30 to discuss their findings in detail with interested parties. Posters will remain on display for one day. We expect that this format will allow the maximum interaction between participants.

Interested contributors should submit a one-page abstract of 200 to 400 words in English without figures or references before 18 December 1998. Notification of acceptance together with the instructions for the camera-ready manuscript (maximum 6 pages) will be mailed on 15 February 1999. The final camera ready copy of the extended abstract is due before 15 April 1999. Participants at the conference will receive the extended abstract volumes. Only papers of participants registered before 15 April 1999 will be included in the final program. Authors of accepted papers selected by peer review will be invited to present their contribution in a special proceedings volume.

Please note:
- Each registered participant will be allowed to present a maximum of two papers.
- Only papers of participants registered before 15 April 1999 will be included in the extended abstracts volume.
- Only contributions with at least one author or co-author registered before 1 June 1999 will be included in the final programme.
- The official language of the conference will be English: no facilities for translation will be available.

Submissions
by website form or by e-mail using RTF-format or ASCII text. Do not submit to more than one address.

Electronic submissions:
E-mail: iamg99@geo.ntnu.no
Website: http://www.geo.ntnu.no/igb/iamg99/abstract_form.html

To fill out the submission form, you need access to an Internet mail account.

Written and faxed summaries and inquiries:
IAMG ’99
Department of Geology and Mineral Resources Engineering 7034 Trondheim, Norway
Phone: 47 73 594828
Fax: 47 73 594814
e-mail: iamg99@geo.ntnu.no

INSTRUCTIONS TO AUTHORS OF MANUSCRIPTS
can be found on the IAMG ’99 web site:
http://www.geo.ntnu.no/igb/iamg99/instructions.html

Instructions for the preparation of camera-ready manuscripts at http://www.geo.ntnu.no/igb/iamg99/instructions.html

SCHEDULE
18 December 1998 Deadline for one-page abstract
15 February 1999 Notification of acceptance
15 April 1999 Deadline for camera-ready copy

REGISTRATION
To register, print out and send a paper-copy Pre-registration form (available from the secretariat), fill out a Pre-registration form in Word and attach the Word-file to an e-mail, or fill out an e-mail Pre-registration form (both available from the website). To fill out an e-mail Pre-registration form, you need access to an Internet mail account.

Registration fees are as follows (in Norwegian kroner):

<table>
<thead>
<tr>
<th></th>
<th>Payment received</th>
<th>after</th>
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</thead>
<tbody>
<tr>
<td>Participants</td>
<td>March 1, 1999</td>
<td>March 1, 1999</td>
</tr>
<tr>
<td>a) IAMG &amp; CFF members</td>
<td>2700</td>
<td>3400</td>
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<td></td>
<td>3400</td>
<td>4200</td>
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<tr>
<td>Students* and Retired Scientists**</td>
<td>1700</td>
<td>2100</td>
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<td></td>
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</tr>
<tr>
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<td>b) Non-members</td>
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<tr>
<td>Accompanying persons</td>
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<tr>
<td>One-day workshops*** (each)</td>
<td>1600</td>
<td>1600</td>
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</table>

* Evidenced through a certificate or student ID card for 1998/99 of an educational institution.
** Born before 5 October 1934.
*** Maximum 15 persons per course.
Membership Committee Report

During the Committee’s meeting held in Ischia, Italy on 6 October 1998 the participants agreed to focus the work in 1998/2000 on activities to attract the scientific youth to the IAMG more than it has been done before. The Committee will promote:

- The organization of special sessions during the annual conferences where particularly young participants can discuss their professional problems and questions of general interest for the youth. The first meeting will be organized during the IAMG’99 conference at Trondheim.
- Special low cost conferences for young scientists giving the opportunity to present first scientific results, for instance from Diploma (Masters) and Doctoral theses. A first conference is under discussion to be held in 2000 in Italy.

G. J. Weltje (The Netherlands) has volunteered to assist the organizers of the conferences to prepare these meetings and to represent the interests of the scientific youth within the Membership Committee.

A second activity in 1999 will be directed to France where the IAMG shall offer an organizational home to geostatisticians who were organized before in a special association which has been dissolved recently.

M. Armstrong will start to build up an IAMG organizational network in France.

New national representatives within the Membership Committee are:

Gert Jan Weltje, Netherlands
Margaret Armstrong, France
Nina Gorelikova, Russia.

J. Harff
Membership Committee Chairman
IAMG Newsletter No. 57

MATHEMATICAL GEOLOGY

Volume 30, Number 8 (1998)

Editorial — Michael Ed. Hohn

Upscaling of Hooke’s Law for Imperfectly Layered Rocks — G. Rijpsma and W. Zijl

Quantification of Natural Fracture Surfaces Using Fractal Geometry — K. Develi and T. Babadagli

Is Lognormal Kriging Suitable for Local Estimation? — C. Roth

A Comparison of the Sequential Gaussian and Markov-Bayes Simulation Methods for Small Samples — A. K. Fredericks and K. B. Newman

LETTER TO THE EDITOR Comment on a paper by T. D. Pham — Z. Sen

Reply to Comments by Z. Sen — T. D. Pham

MG Volume 31, Number 1 (1999)

Design and Analysis for Modeling and Predicting Spatial Contamination — M. Abt, W. J. Welch, and J. Sacks

Scale Matching with Factorial Kriging for Improved Porosity Estimation from Seismic Data — T. Yao, T. Mukerji, A. Journel, and G. Mavko

Bayesian Inference of Spatial Covariance Parameters — E. Pardo-Igúzquiza

Bayesian Modeling and Inference for Geometrically Anisotropic Spatial Data — M.D. Ecker and A. E. Gelfand

Multivariate Correlation in the Framework of Support and Spatial Scales of Variability — J. A. Vargas-Guzmán, A. W. Warrick, and D. E. Myers

The Characterization Problem for Isotropic Covariance Functions — T. Gneiting and Z. Sasvári

On the Ergodicity Hypothesis in Heterogeneous Formations — H. Zhan


Association Announcement: John Aitchison: Krumbein Medalist — Vera Pawlowsky Glahn

MG Volume 31, Number 2 (1999)

Do Skeletal Networks Derived from Water Bodies Follow Horton’s Laws? — B. S. Daya Sager, M. Venu, and K. S. R. Murthy

Importance of Orthogonalization Algorithm in Modeling Conditional Distributions by Orthogonal Transformed Indicator Methods — A. E. Tercan

Analytical and Numerical Modeling of a Double Well Capture Zone — Hongbin Zhan

The Correlation Bias for Two-Dimensional Simulations by Turning Bands — T. Gneiting


Association Announcement: Jan Eduard Harff: Krumbein Medalist — John C. Davis

INTERNATIONAL ASSOCIATION FOR MATHEMATICAL GEOLOGY

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If you are a university student pursuing a degree, you may subscribe to Computers & Geosciences for half the regular price. You must submit proof in English of student enrollment or send this form signed by a university professor.

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University Name________________________ Professor Name________________________

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Country________________________ Mail this form with your application/renewal to the address shown on the right

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REQUIRED: IAMG DUES Circle price of at least one journal.

Mathematical Geology........................................................................................................... US$ 32.00
Computers & Geosciences, regular............................................................................................... $ 69.00
Computers & Geosciences, student (proof of enrollment required).................................................. $ 34.50
Nonrenewable Resources................................................................................................................... $ 45.00

OPTIONAL: IAMG Monograph Series. Circle Prices of desired monographs.

#2: “Oil and Gas Forecasting – Reflections of a Petroleum Geologist” by Lawrence J. Drew..............US$ 42.00
#3: “Geostatistical Glossary and Multilingual Dictionary” edited by Ricardo Olea............................................. $ 31.50
#4: “Techniques for Determining Probabilities of Geologic Events and Processes – A Review” edited by R. L. Hunter and C. J. Mann................................................................. $ 42.00
#5: “Computers in Geology – 25 Years of Progress” edited by John J. Davis and Ute Herzfeld........... $ 38.50

NOTE: Monograph #1 is no longer available

TOTAL..........................................................................................................................
Continued on page 18
Awards from p. 17

IAMG Award Guidelines

as approved by the Council, November 11, 1997 and modified on May 22, and July 28, 1998

The International Association for Mathematical Geology has four awards to recognize outstanding contributions to mathematical geology.

The following guidelines have been prepared to help finding individuals worthy of recognition, to describe the purpose of the awards, to establish some basic rules to assist in the selection procedure, and to give consistency to the process through time.

FELIX CHAYES PRIZE FOR EXCELLENCE IN RESEARCH IN MATHEMATICAL PETROLOGY

A. Description

The Chayes Prize is a US$5,000 cash award that may be used to support research in progress or provide support for new research. The prize was endowed by gifts provided in 1996 by Chayes's widow, Dr. Irene Hendry Chayes, and his sister, Mrs. Natalie C. Tenney in 1997. At the meeting of the IAMG's General Assembly during the XXX International Geological Congress in Beijing in 1996, a memorial in honor of Felix Chayes was approved. Each recipient is to receive an engraved plaque bearing the recipient's name.

B. Guidelines

1. Search for nominees shall be done internationally through the IAMG Newsletter and other appropriate publications with sufficient anticipation to allow presentation of the prize during the nomination year.

2. Nominations for the Chayes Prize should be submitted to the Chairman of the Awards Committee and accompanied by descriptions of research in progress, or research that might be undertaken or extended following receipt of the prize. While an individual recipient may receive the prize, a research team may also be a recipient.

3. The recipient or senior team member must be at least five years past the doctorate and have publications relevant to the field of the Chayes Prize as evidence of achievement up to the time of the award.

4. For the fair and proper selection of the recipients, the Awards Committee members shall evaluate the most relevant qualifications of the nominee. They shall be summarized as numerical scores.

5. The recipient or senior team member must be between the ages of 35 and 60. IAMG membership is expected but is not a requirement.

6. Each recipient is expected to attend the meeting where the prize is presented, with reasonable travel expenses provided by IAMG, thereby making the cash prize available in its entirety to the recipient. If awarded to a team, the Association shall pay travel expenses for one team member who serves as the representative of the team.

7. The recipient is expected to present a paper at the meeting that is concerned with the research cited in presentation of the prize.

8. Uses of funds supplied by the prize are left to the judgment of recipients, who need not account to the Association for uses of the funds. Funds attached to the prize may be paid directly to an individual recipient. If awarded to a team, the funds may be presented to the team's institution for use by the team. Funds for the prize are derived from earnings of the Chayes endowment.

9. The Chayes Prize is presented on an alternate-year basis with the Krumbein Medal.

ANDREI BORISOVICH VISTELIUS RESEARCH AWARD

A. Description

Recipients receive a plaque bearing the recipient's name and a copy of an inscribed book relevant to his or her research interests for a value not to exceed the equivalent of US$350 in 1998. The award was established in 1980 during the XXVI International Geological Congress in Paris following the announcement that Vistelius was the fifth Krumbein medalist. Because of difficulties to honor Vistelius while still alive, the General Assembly named the award the President's Prize as a temporary solution. After his death in 1995 his General Assembly, meeting this time in 1996 during the XXX Geological Congress in Beijing, renamed the award as originally intended. Before this change the prize was presented annually.

B. Guidelines

1. The Awards Committee will invite nominations in the IAMG Newsletter and other appropriate publications with sufficient anticipation to allow presentation of the award before the nomination year is over.

2. Nominations shall include both a resume and a short statement summarizing the most relevant qualifications of the nominee. They shall be submitted to the Chairman of the Awards Committee.

3. The recipient should be born after 1 January 1964; he or she need not be a member of the IAMG.

4. Awards Committee members shall evaluate the merits of all nominees based on the information accompanying each nomination, which shall be summarized as numerical scores.

5. Each recipient is expected to present a paper at the meeting where the award is presented, with reasonable travel expenses provided by the Association.

6. The Vistelius Award is presented in the same year as the Chayes Prize, and on an alternate-year basis with the Krumbein Medal and the Griffiths Award.

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Meetings - cont’d from p. 17


SPE Annual Technical Conference and Exhibition, Houston, Texas, U.S.A., 3-6 October 1999. SPE Continuing Education, P.O. Box 833836, Richardson, TX 75083-3836, U.S.A., Phone: 01-972-952-9316, Fax: 01-972-952-9435, E-mail: cladowski@spelink.spe.org

The Mining Pribram Symp. 1999 - International section on GEOTHERMICS, Prague, Czech Republic, 4-9 October 1999. Co-organized by the Regional Center of the IAMG in Prague. The Mining Pribram Symposium, PO Box 41, 261 02 Pribram, Czech Republic, Phone: +4203/447-2020, ext. 164. Fax: +4203/447-1133, E-mail: nemcova@vse.cz

Int’l Conference on TEXTURES AND PHYSICAL PROPERTIES OF ROCKS, Goettingen, Germany, 13-15 October 1999. Dr. Bernd Leiss, Institute of Geology and Dynamics of the Lithosphere, Goldschmidtstr. 3, D-37077 Goettingen, E-mail: bleeis1@gwdg.de, http://www.gwdg.de/~bleeis1/pphr.html


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Conference Reports
The Fourth International Symposium "Application of Mathematical Methods and Computer Technologies in Geochemistry and Environmental Protection" in Kiev, Ukraine, September 22 - 25, 1998

The series of these Symposia started in 1992 in Lviv where also the 2nd and 3rd Symposium were organized in 1994 and 1996. The 4th meeting was organized in the capital of Ukraine and its principal orientation was focused on the Environmental Protection conditioned by Emergencies.

The presentations were classified in three groups: 1. Environmental and economic models for damage evaluation and forecasting for risk of technogeneous accidents and natural catastrophes (14 abstracts published, 8 oral presentations). 2. Simulation of interaction between ecological and geochemical factors in the "technosphere-lithosphere-hydrosphere" system and distribution of technogeneous contaminants in different types of geochemical landscapes (19 abstracts published, 5 oral presentations). 3. Mathematical and computer technologies for information maintenance for non-traditional problems in geochemistry and environmental protection (16 abstracts published, 9 oral presentations).

The IAMG was on the first place in the list of organizing institutions followed by the Comission on Nuclear Policy and Technogenic Safety under the President of Ukraine, National Academy of Sciences of Ukraine, the Ministry of Emergencies and Affairs of Population Protection from the Consequences of Chernobyl catastrophe, the Ministry of Environmental Protection and Nuclear Safety of Ukraine, and Kiev State Scientific Center for Environmental Radiogeochemistry.

Among the six inauguration speeches were those presented by the Deputy Minister of Emergencies O.V. Hyiduk, the chairman of the Organizing Committee B.A. Gorlitsky and the representative of the IAMG Regional Center in Prague V. Nemec. The traditional financial support of the IAMG for this Symposium was highly appreciated.

About 50 people took part in the conference, mostly from Ukraine (especially from Kiev and Lviv), with a few participants from abroad (2 from Poland, one each from the Czech Republic, Lithuania and Russia). Altogether 13 abstracts from Russian authors were published but the actual economic crisis made it impossible for many Russian colleagues to attend the meeting (unlike at previous 3 symposia in Lviv with a broader participation of Russian specialists). Several authors of published abstracts from Kazakhstan and Yugoslavia did not appear as well.

Ukraine - the country of Chernobyl tragedy - has been suffering very much. The participants of the symposium had the possibility to visit also the Ministry of Emergencies and to receive information concerning actual problems of monitoring and solving emergency cases in the country - this presentation was arranged just in the Central Emergency Hall of the Ministry.

The topic of the Fourth Symposium - applied perhaps for the first time in the history of meetings on mathematical geology - was very actual. Despite numerous economic problems of the country it appeared as very useful to continue in the series of symposia and to give a chance to the specialists of the country and to some authors from abroad to exchange ideas and to have an important possibility of a scientific conference.

I am afraid that many colleagues abroad are unable to imagine the difficult actual conditions for any scientific work in such countries as Ukraine or Russia. It would be very useful for the IAMG to continue in the support of the Fifth Symposium which will be held in the year 2000 very probably in Kiev again. This will be not only a merit from the purely ethical view but it can result - in case of a broader participation from abroad - also in an intensified development of progressive ideas in mathematical geology.

Vaclav Nemec

Joint Statistical Meetings in Dallas
The Joint Statistical Meetings of the American Statistical Association, the Institute of Mathematical Statistics, the International Biometric Society and the Statistical Society of Canada were held in the summer heat of Dallas, Texas, from August 9 to 13. As a first, the IAMG sponsored a session on "Advancements in Geostatistics" on Tuesday morning, chaired by IAMG vice-president Carol Gotway Crawford with speakers Isobel Clark, UK, Christian Lantuéjoul, France, and Peter Dowd, UK. The papers were summarized by discussant Michael Ed. Hohn, past president of IAMG.

Although this session was just one of almost 300 events with twenty to 25 parallel sessions distributed over four days, it attracted a good number of listeners as well as discussions on each of the papers.

Some 4000 statisticians from all fields of science, government, sports, medicine and sociology attended the meeting in the huge Anatole Hotel near downtown Dallas. Most of the meeting rooms were relatively small, while the IAMG session was held in one of the larger halls. The exposition of commercial companies was located together with the poster sessions in another part of the hotel complex accessible only by walking in the heat through a very nice park. Most of the stands showed statistical software or books. Relatively few displays were of interest to geoscientists - and most of those were related to environmental research problems.

There were also large number of meetings for special interest groups such as medical statistics, caucus for women in statistics, biometrics, Christian statisticians, Korean statisticians, Gay and Lesbian statisticians etc. But my favorite label was the Isolated Statisticians meeting.

Harald S. Poelchau

GSA Toronto

Eric Grunsky and John Broome at the new IAMG stand

Photo G. Bonham-Carter
The second circular for GEOVISION 99 is now available from:


GEOVISION is the very first congress of its kind. The idea of organising this meeting came from the striking evidence that more and more imaging techniques are developed or used in the earth sciences. Video microscopy, electrical tomography or airborne and space infrared imaging are only but a few of these emerging techniques requiring a thorough understanding of imaging principles and a good mastership of the processing algorithms.

We strongly believe that bringing together earth scientists involved in digital imaging, whatever their field of applications, is the best way to help people tighten new relationships and discover new potentials for geo-imaging. The leading researchers and major scientific societies supporting Geovision ’99 give us the feeling that this will be a great event.

Looking forward to welcoming you in Liège,

The Organizers

KEYNOTE LECTURES

Richard Bedell, Homestake Mining Company, NEVADA, UNITED STATES: "Geological Imaging: Principles and applications"

Serge Beucher, Ecole des Mines de Paris, FRANCE: "Mathematical Morphology and Geology: when image analysis uses the vocabulary of earth science. A review of some applications"

Torgeir Dahlin, Lund University, SWEDEN: "Development of resistivity imaging techniques"

Wim Spakman, University of Utrecht, NETHERLANDS: "Tomography of the Earth’s interior with seismic travel times"

Geovision 99 is the very first congress of its kind. The idea of organizing this meeting came from the striking evidence that more and more imaging techniques are developed or used in the earth sciences. Video microscopy, electrical tomography or airborne and space infrared imaging are only but a few of these emerging techniques requiring a thorough understanding of imaging principles and a good mastership of the processing algorithms.

We strongly believe that bringing together earth scientists involved in digital imaging, whatever their field of applications, is the best way to help people tighten new relationships and discover new potentials for geo-imaging. The leading researchers and major scientific societies supporting Geovision ‘99 give us the feeling that this will be a great event.

Looking forward to welcoming you in Liège,

The Organizers

KEYNOTE LECTURES

Richard Bedell, Homestake Mining Company, NEVADA, UNITED STATES: "Geological Imaging: Principles and applications"

Serge Beucher, Ecole des Mines de Paris, FRANCE: "Mathematical Morphology and Geology: when image analysis uses the vocabulary of earth science. A review of some applications"

Torgeir Dahlin, Lund University, SWEDEN: "Development of resistivity imaging techniques"

Wim Spakman, University of Utrecht, NETHERLANDS: "Tomography of the Earth’s interior with seismic travel times"