



IAMG Newsletter

No. 63 December 2001

Official Newsletter of the International Association for Mathematical Geology

Contents

The 2002 IAMG Distinguished Lecturer	1
President's Forum	3
IAMG 2002	4
Mathematical Geology emphasized by NSF!	4
Association Business	5
IAMG 2003 Portsmouth	5
Student Grants Committee	5
New permanent IAMG Membership Office!	5
Member News	6
IAMG Annual Meeting - Images of Cancun 2001	7-10
IAMG Journal Report	11
Journal Contents	11
Conference Reports	12
IGC 2004 Florence: IAMG Proposals	12
Upcoming Meetings	14
John C. Butler 1941-2001	15
Vassil T. Vuchev 1935-2001	15
Geoinformatik	16

Call For Nominations

The Association invites all members to submit nominations for

The 2002 IAMG Distinguished Lecturer

Deadline : January 31, 2002

The IAMG council voted in 2000 to establish a Distinguished Lecture series and has recently approved a committee charged with implementing the recommendations contained in the report of the IAMG Lecture Series Commission (July 2000). Distinguished Lecturer Committee is composed of the following members:

- Alex Desbarats (Canada) - Chair
- Patrick Bogaert (Belgium)
- Jianping Chen (China)
- Natalya Hunter-Williams (Ireland)
- Sean McKenna (USA)
- Graeme Bonham-Carter (Canada) - ex officio

The purpose of the IAMG Distinguished Lecture series is to demonstrate to the broader geological community the power of mathematical geology to address routine geological interpretation and to deliver this knowledge to audiences in selected parts the world. Therefore, the IAMG Distinguished Lecture Series Committee is seeking nominations for outstanding individuals who meet the following criteria:

- a. A demonstrated ability to communicate mathematical concepts to a general geological audience.
- b. A clear enthusiasm for mathematical geology.
- c. Recognition for work in their field.
- d. Established skill in working with individuals and in group discussions on geological problems.

The Distinguished Lecturer must be ready to travel and to perform the following duties:

- a. Prepare and present a lecture suitable for a general geological audience.

—>

This issue reports, among other things, on the IAMG Annual Meeting in Cancun, Mexico which your Editor was fortunate to be able to attend in person. September 11 occurred right in the middle of the conference. Fortunately, as far as we know, nobody had any close family or friends directly affected by the events in New York and Washington, DC. But some came close. Jan Weltje reported to have used his layover time in NY to visit the World Trade Center on Sunday, two days before the disaster.

From the Editor
From the Editor
From the Editor

For most of us, the main effect in Cancun was the cancellation of return flights. It was remindful of, but certainly not as dramatic as, the founding meeting of IAMG in 1968 in Prague when the Soviets decided to occupy Czechoslovakia and the attendees scrambled to get out of the country by any means available.

Returning from Cancun was easiest for those flying back to their homes without a change of planes in the US. Some were able to reroute their trip through Cuba. For those of us going back to the US it meant being stranded for a few extra days after the end of the conference - "marooned in Cancun" - having to spend more time on the beach or on excursions to the abundant archeological treasures of Yucatan and Quintana Roo. It also meant getting to know each other much better and exchanging the latest news from the airlines several times a day, and running up the hotel bill with extra phone calls.

For those of us who have been through war or other major disasters the strong reaction and immediate response from around the world has been astonishing as well as gratifying. Immediate and spontaneous expressions of dismay and sympathy from friends and acquaintances in many countries, as well as foreign visitors in the streets, have been experienced by many of us here in the US. Regardless of how one looks at the policies of this US administration, the idea and experience of being united with our colleagues in the math geology community is a wonderful thing to remember.

Harald S. Poelchau

- b. Prepare and present one or two lectures on a more specialized topic.
- c. Interact and hold discussions with individuals, both professionals and students, on applications of mathematical geology to local problems of interest.

Letters of nomination should include a curriculum vitae of the nominee and a short statement summarizing the ways in which he or she fulfills the nomination criteria.

Letters should be directed to the Chair of the Distinguished Lecture Series Committee by e-mail to :

Desbarat@NRCan.gc.ca

Or by regular mail to :

Alexandre Desbarats (see address overleaf)

International Association for Mathematical Geology

IAMG Office
4 Cataraqui St., Suite 310
Kingston ON K7K 1Z7
CANADA
E-mail: office@iamg.org
FAX: (613) 531-0626
Tel: (613) 544-6878

Officers

President: Graeme F. Bonham-Carter, Geological Survey of Canada, 601 Booth St., Ottawa, Ontario K1A 0E8, Canada, Tel: (613) 996-3387, Fax: (613) 996-3726, E-mail: bonham-carter@NRCan.gc.ca

Vice President: Frits P. Agterberg, Geological Survey of Canada, 601 Booth St., Ottawa, Ontario K1A 0E8, Canada, Tel: (613) 996-2374, Fax: (613) 996-3726, E-mail: agterber@nrcan.gc.ca

Secretary General: Carol A. Gotway Crawford, National Center for Environmental Health, Centers for Disease Control and Prevention, MS E70, 1600 Clifton Rd. NE, Atlanta, GA 30333, USA, Tel: (404) 639-2504, Fax: (404) 639-1677, E-mail: cdg7@cdc.gov

Treasurer: Geoff Bohling, Kansas Geological Survey, Univ. of Kansas, 1930 Constant Ave., Lawrence, KS 66047, USA, Tel: (785) 864-2093, Fax: (785) 864-5317, E-mail: geoff@kgs.ukans.edu

Past President

Ricardo A. Olea, Kansas Geological Survey, University of Kansas, 1930 Constant Avenue, Lawrence, KS 66047, USA, Tel: (785) 864-2095, Fax: (785) 864-5317, E-mail: olea@kgs.ukans.edu

Committee Chairs

Awards Committee:

Vera Pawlowsky Glahn
Universitat de Girona, Departament d'Informàtica i Matemàtica Aplicada, Campus de Montilivi - edifici P1, Avda. Lluís Santaló s/n, Girona E-17071, Spain, Tel: +34-972 418 170, Fax: +34-972 418 972, E-mail: vera.pawlowsky@ima.udg.es

Distinguished Lecture Committee:

Alexandre Desbarats
Geological Survey of Canada, 601 Booth St., Ottawa, ON, K1A 0E8, Canada, Tel: (613)995-5512, Fax: (613)996-3726, E-mail: Desbarat@NRCan.gc.ca

Publications Committee:

Michael Ed. Hohn
West Virginia Geological Survey, Mont Chateau Research Center, P. O. Box 879, Morgantown, WV 26507-0879, USA, E-mail: hohn@geosrv.wvnet.edu

Student Grants Committee:

Timothy C. Coburn
Abilene Christian University, Dept. of Mathematics, 252 Foster Science Building, ACU Box 28012, Abilene, TX 79699-8012, USA, Tel: (915) 674-2206, E-mail: tim.coburn@coba.acu.edu

Webmaster: Eric Grunsky, Alberta Geological Survey, 4999 - 98th Ave., Edmonton AB T6B 2X3, CANADA Tel: 780 422-2454, email: egrunsky@iamg.org

Councilors

Margaret Armstrong, CERNA, Ecole des Mines de Paris, 60 Bvd St Michel, 75272 Paris cedex 06, FRANCE, Tel: 33 1 4051 9313, Fax: 33 1 4407 1046, Email: armstrong@cerna.ensmp.fr

John Doveton, Kansas Geological Survey, Univ. of Kansas, 1930 Constant Avenue, Lawrence, KS 66047 USA, Tel: (785) 864-2100, Fax: (785) 864-5317, E-mail: doveton@kgs.ukans.edu

Ryoichi "Roy" Kouda, Chief, Information & Publication Office, Geological Survey of Japan, Ministry of International Trade and Industry, 1-3, Higashi 1-chome, Tsukuba, Ibaraki 305-8567 JAPAN, Phone: +81-298-61-3606, Fax: +81-298-61-3602, E-mail: roy@gsj.go.jp

Thomas A. Jones, Exxon Upstream Research Co., 5211 Braeburn Dr., Bellaire, TX 77401-4814, USA, Phone: 713-431-6546; Fax: 713-431-6336, E-mail: tom.a.jones@exxonmobil.com

Maria-Theresia Schafmeister, Institut für Geol. Wissensch., EMAU Greifswald, F.-L.-Jahn-Str. 17a, D-17487 Greifswald, GERMANY, Tel: 49 3834 864592, Fax: 49 3834 864572, E-mail: schaf@uni-greifswald.de

Gert Jan Weltje, Delft University of Technology, Faculty of Civil Engineering and Applied Geosciences, P.O. Box 5028, NL-2600 GA Delft, The Netherlands, Tel: 31 15 2785722, Fax: 31 15 2781189, E-mail: g.j.weltje@ta.tudelft.nl

Special IGC Councilor:

Antonella Buccianti, Dipartimento di Scienze della Terra, Università di Firenze, Via La Pira 4 - 50121, Firenze, ITALY, Tel: (39) (055) 2757496, Fax: (39) (055) 284571, E-mail: buccianti@unifi.it

Editors

Computers & Geosciences: Graeme F. Bonham-Carter
Geological Survey of Canada, 601 Booth St., Ottawa, Ontario K1A 0E8, Canada, Phone: (613) 996-3387, fax: (613) 996-3726, E-mail: bonham-carter@gsc.emr.ca

Mathematical Geology W. Edwin Sharp
Department of Geology, University of South Carolina, Columbia, SC 29208, USA, Tel: (803) 782 2323, FAX: (803) 777-6610, E-mail: sharp@math.geol.sc.edu

Natural Resources Research: Daniel F. Merriam
Kansas Geological Survey, 1930 Constant Avenue, Univ. of Kansas, Lawrence, KS 66047-2598, USA, E-mail: dmerriam@kgs.ukans.edu

IAMG Monograph Series JoAnne DeGraffenreid
Kansas Geological Survey, 1930 Constant Avenue, Univ. of Kansas, Lawrence, KS 66047-2598, E-mail: MsDeG@kgs.ukans.edu

IAMG Newsletter: Harald S. Poelchau
Kansas Geological Survey, 1930 Constant Avenue, Lawrence, KS 66047-2598, USA, Tel: (785) 864-2090, Fax: (785) 864-5317, E-mail: h.poelchau@iamg.org

PRESIDENT'S FORUM

I find that I walk down the three flights of stairs to the library less frequently these days, not just because I have less time to read, but more because I can get the same access from my computer. The Geological Survey of Canada's library has 174 journals available on-line, and perhaps this is typical of many libraries. Both GeoRef (AGI) and Geobase (Elsevier) have been available on-line for some years, and Elsevier's ScienceDirect now gives an added capability to search for articles of interest. Like many, I don't really like to read papers on the screen, but in most cases it is simple to print out a pdf file, which gives a product that looks almost like a reprint. This is certainly simpler than photocopying a paper out of a journal, and in most instances is quicker and more efficient. The advantages of fast search and retrieval over a large range of journals is certainly much more powerful than the old method of doing things by hand in the library, even though the discovery of items by lateral browsing on library shelves was often a rewarding and satisfying experience.

With the onward march of electronic publishing, it is pertinent to ask how our own three journals are progressing in this respect. Mathematical Geology and Natural Resources Research are both published by Kluwer-Plenum, a publisher that was not in the vanguard of the electronic publishing business, but is now rapidly catching up. Mathematical Geology has been available online in some libraries since 1999, although I was disappointed to find that my own library only has a paper subscription. Electronic access to individual IAMG members is not currently available, except through a subscribing library. Natural Resources Research is not available electronically at present. Computers & Geosciences has been online since 1996, both through libraries and also to IAMG members. In fact, until 2001 it was available free to anyone (member or not) via the IAMG webpage, although many people did not realize it.

IAMG members have been paying about double the subscription rate for Computers & Geosciences compared to MG, and likewise the library subscriptions differ by the same proportion. But after considering the fact that C&G has 10 issues per year against MG's 8 issues, and has a larger format, it seems that the cost per article is not so different as would at first be expected, because C&G publishes about 100 papers per year versus about 50 per year for Mathematical Geology.

The free access via the IAMG web page to C&G has now stopped, and not surprisingly Elsevier is instituting a new electronic subscription to members, starting in January 2002. The details are as follows. For a subscription to the printed version, the rate for 2002 is US\$75, and student membership is still at a 50% discount (US\$37.50). The cost of this discount is shared equally by IAMG and Elsevier. However, Elsevier is also offering a new e-subscription of \$37.50 to all IAMG members (no discount to students). There is no financial benefit for getting both paper and digital, it is simply the sum of the two individual subscriptions.

This reduced e-sub will probably not be attractive to those that are used to the paper edition, particularly if their library already

gives them access to the online version via ScienceDirect. However, it may be of interest to some members who now take only MG or NRR, particularly if their library doesn't give them online access to C&G. However, the member e-sub does not provide all the advantages of access available to ScienceDirect users. A member e-sub will give only a rolling 2-year window of access, so that older volumes are unavailable, and if the subscription terminates, so does access. (Members can get around this to some extent by downloading the pdf files and creating their own CD archive, but this is not a very convenient solution). Furthermore, instant linkages to cited titles, abstracts and papers, now possible for ScienceDirect users, will not be open to those with member e-sub. Despite these constraints, the e-sub will be attractive to some members and certainly the cost is very reasonable.

During the period July 2000 to June 2001, the average number of downloads per paper for C&G was 66, whereas the average for Elsevier journals in the geosciences was 56.

Discussions are currently under way with Kluwer-Plenum on various aspects of the IAMG contract for MG. Although there is currently no e-sub for members, libraries that subscribe

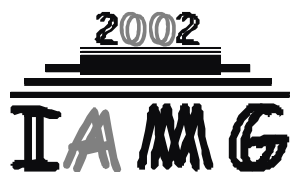
to MG online, but decide at some point to end their subscription, receive a CD with back issues, so their investment is not lost.

On-line availability of Computers & Geosciences has increased the access to the journal dramatically over the past year or so. Whereas the number of printed subscriptions is about 500 (it has been dropping over recent years because of price and shrinking library budgets), the number of online library subscriptions has grown to almost 2000. This has been achieved by offering bundles of subscriptions at favourable rates. This appears, at least initially, to be a very positive development, because ultimately IAMG and authors want their papers to be widely read.

The impact factor (the average number of times a journal's article is cited, over a two-year period) of both C&G and MG has always been rather low, although this is typical of many specialized journals. With online access, a new measure is now possible: the average number of downloads per paper. During the period July 2000 to June 2001, the average number of downloads per paper for C&G was 66, whereas the average for Elsevier journals in the geosciences was 56. This is very encouraging, both in terms of increased access, and also by this measure of interest in papers in the journal. At present no comparable data are available for MG.

IAMG has always relied on income from royalties to fund our activities. Unlike many other comparable associations, member subscriptions are paid totally to the publisher, without any margin for covering other expenses. It is therefore important that as we move from paper to electronic that our contracts with publishers guarantee a royalty on e-sub. Our Elsevier contract negotiated in 1999 has a clause dealing with this point, and future contracts for MG and NRR should do the same.

Graeme Bonham-Carter



**Annual Conference of the
International Association
for Mathematical Geology,
IAMG 2002**

15 - 20 September 2002, Berlin, Germany

SCIENTIFIC PROGRAM

TECHNICAL SESSIONS

- *Geostatistical modeling and propagation of uncertainty*
Conveners: Pierre Goovaerts, USA; Roland Froidevaux, Switzerland
- *Geostatistical simulation*
Convener: J. Jaime Gomez-Hernandez, Spain
- *Multivariate geostatistics and data assimilation*
Convener: Hans Wackernagel, France
- *Bridging and integrating GIS and geostatistics*
Conveners: Grégoire Dubois, Belgium; Edzer J. Pebesma, The Netherlands
- *Statistical methods in geology*
Convener: John C. Davis, USA
- *Studies in Mathematical Geology (General Session)*
Conveners: Dan Merriam, USA; Andrea Förster, Germany
- *Interoperable and mobile GIS - Developments and applications*
Conveners: Martin Breunig, Andreas Thomsen, Germany
- *Geomodeling and web presentation*
Conveners: Robert Marschallinger, Austria; Scott Johnsons, USA
- *Developments and status of standards, dictionaries and technologies for geoscience data*
Conveners: J. Broome, Canada; K. Asch, Germany
- *Spatial databases*
Convener: Agnes Voisard, Germany
- *Spherical problems in geosciences*
Convener: Helmut Schaeben, Germany
- *Compositional data analysis: From theory to practice*
Conveners: V. Pawlowsky-Glahn, Spain; Hilmar von Eynatten, Germany
- *Fractals and multifractals*
Conveners: Frederik P. Agterberg, Qiuming Cheng, Canada
- *Statistics of petrochemical/physical data*
Conveners: A. Bucciatti, J. A. Martín-Fernández, Spain
- *Exogene dynamics and the lithosphere's sediment cover*
Conveners: Jan Harff, Germany; Victor Dech, Russia; Dan Tetzlaff, USA
- *Modeling geochemical and physical-chemical processes at the earth's crust*
Conveners: Nina Gorelikova, Irina Tchijova, Russia
- *Quantitative Models for environmental security: Focus on representation and perception of geo-environmental concerns in predictions*
Conveners: A. G. Fabbri, The Netherlands; Chang-Jo Chung, Canada

WORKSHOPS

- *WS1 - Practical geostatistics*
Lecturer: Isobel Clark, Scotland
- *WS2a - Compositional data analysis: theoretical foundations*
Lecturers: John Aitchison, UK; Carles Barceló-Vidal, Spain; Josep Antoni Martín-Fernández, Spain
- *WS2b - Compositional data analysis: practical applications*
Lecturers: Vera Pawlowsky-Glahn, Spain; Santi Thió-Henestrosa, Spain; Hilmar von Eynatten, Germany

- *WS3 - Spherical wavelets and their applications in geosciences*
Lecturers: Daniel Potts, Jürgen Prestin, Helmut Schaeben, Germany
- *WS4 - Geostatistical simulations*
Lecturers: Ch. Lantuéjoul, D. Renard, France
- *WS5 - Visualization & web-presentation*
- *WS6 - Prediction models for landslide hazard mapping and mineral exploration potential using spatial data*
Lecturers: Andrea G. Fabbri, The Netherlands; Chang-Jo Chung, Canada

VISIT OUR WEB SITE

→ <http://www.fu-berlin.de/iamg2002/>

IMPORTANT DATES

- | | |
|--------------------|------------------------|
| • January 31, 2002 | Abstracts Due |
| • March 31, 2002 | Author Notification |
| • May 31, 2002 | Early Registration |
| • June 15, 2002 | Camera-Ready Paper Due |



Mathematical Geology emphasized by NSF!

The Geoscience Directorate and Mathematics Divisions at NSF have now completed the program announcement for the first year of a competition for collaborative proposals between geoscientists and mathematicians. The deadline is February 25, 2002 and the announcement number is NSF02-022. You may access the announcement at

<http://www.nsf.gov/cgi-bin/getpub?nsf02022>

Proposals are solicited on the following theme: “*Analyzing and modeling geosystems that contain a broad range of interacting scales.*”

A few examples of topics that fall within this theme include:

- Novel dynamical and/or statistical approaches to representing or exploring the impact of ranges of dynamically active scales that are not explicitly resolvable.
- New approaches to representing high-dimensional dynamical systems.
- Research on the links between the composition of geosystems with large numbers of degrees of freedom and the emergence of patterns of coherent spatio-temporal structure within such systems.
- Research that links new insights about the internal dynamics of geosystems and novel methods of analyzing data sets.

The program budget for FY02 is \$4.4Mill., and it is expected to grow over the next several years. Interested researchers are encouraged to respond to the announcement by contacting:

Robin Reichlin
Geophysics Program Director
National Science Foundation
4201 Wilson Blvd., Room 785
Arlington, VA 22230
rreichli@nsf.gov
PHONE (703)-292-8556
FAX (703)-292-9025

Association Business

IAMG 2003 Portsmouth, United Kingdom Sept 7-13, 2003

The preparations for this conference are now well under way. The main theme of the conference will be the analysis, modelling and simulation of geological hazards (of many kinds), though there will also be symposia on more general topics. There is now a web site at <http://www.iamg2003.com> which will provide information as and when it becomes available.

A formal call for papers will be made in 2002 but anyone interested in submitting preliminary information about a potential contribution should send their name, contact details and title of the potential contribution to Dr John Whalley at the Conference Secretariat.

Conference Secretariat: Dr John Whalley, IAMG 2003, School of Earth and Environmental Sciences, University of Portsmouth, Burnaby Road, Portsmouth PO1 3QL, UK Tel: +44 23 9284 2259, Fax: +44 23 9284 2244, Email: info@iamg2003.com and iamg2003@port.ac.uk



Student Grants Committee

The new Student Grants Committee began its work in earnest in August of this year, with the formal appointment of the committee members. The committee consists of:

Tim Coburn, Abilene Christian University, USA (Chair)
Fred Delay, University of Poitiers, France
Peter Atkinson, Southampton University, United Kingdom
Clayton Deutsch, University of Alberta, Canada
(John Butler, University of Houston, USA - deceased Oct. 2001)
Graeme Bonham-Carter, GSC, Canada (ex officio)

The committee is in the process of compiling a master list of individuals to whom notification of availability of the grants can be sent. An email campaign is planned for Fall, 2001 to solicit proposals. Other recruitment activities may also be initiated.

The committee intends to begin reviewing proposals late in 2001, in hopes of making an initial award early in 2002.

Timothy C. Coburn

25 years ago

The year 2001 marks the 25th anniversary of the founding of **MGUS** (Mathematical Geologists of the United States), then called United States Regional Organization (see Newsletter #9). It was officially recognized by the IAMG at the GSA convention in Salt Lake City. **C. John Mann** was appointed Acting President and **Richard B. McCammon** Acting Secretary. Balloting for officers of this new Organization took place by mail in September 1976 and confirmed Mann and McCammon as President and Secretary, respectively, and elected **John Cubitt** as Vice-President. MGUS became a very active group and organized several meetings.

In the late 1980s MGUS started to fade and went officially out of existence when in 1999, after not meeting or electing officers for more than 10 years, **John O. Kork**, the last MGUS Treasurer, decided in consultation with last MGUS Vice President **John Schuenemeyer**, to close the MGUS bank account and transfer the balance of almost \$15,000 to the IAMG.

After consultation with the IAMG Council and MGUS members, the Association decided to create an MGUS Fund that should be used to finance a student grant. It will be administered by the Student Grants Committee under the Chairmanship of **Tim Coburn** (see above).

So, although the MGUS was founded 25 years ago and didn't stay alive very long, it will be remembered!



Studies for Students

Another paper: "Generalized linear models in soil science" by P.W.Lane, is being published as part of the IAMG-sponsored **Studies for Students Series** in the European Journal of Soil Science, volume 53.



Newsletter goes electronic

As we suggested a while ago, with most members now connected to the internet, we could save on (ever increasing) postage by making the Newsletter available online instead of mailing it. To accommodate those who cannot or don't like to retrieve their own Newsletter copy from the internet, we are still leaving the option to receive the Newsletter as hard copy by snail mail. For the majority of members we will have the following setup: When the next Newsletter is uploaded to the IAMG website we will do a mass e-mailing notifying each member that the new Newsletter is available, with a link that can be double-clicked to lead directly to that web page. The Newsletter in PDF format can then be either read online with Acrobat reader, or downloaded, or printed.

There will be a box to check on the membership renewal form (see page 13) if a member still wants to receive a Newsletter hardcopy by mail. The default (if you don't check the box) will be e-mail notification of availability online and no hardcopy mailed.

We hope this new model will be acceptable to the membership. Any comments regarding these changes are welcome.



New permanent IAMG Membership Office!

On November 30th IAMG set up a permanent office with Events & Management Plus Inc. of Kingston, Ontario to supply membership and other office services to IAMG. In the past these services were performed by the IAMG Treasurer. However, as membership has increased, and the task of keeping up with subscriptions, address changes, bookkeeping etc. is taking more time than is available on a volunteer basis, Council decided to farm out these tasks and establish an IAMG address that doesn't change with each new administration.

So, from now on send all membership and subscription inquiries to:

IAMG Office
4 Cataraqui St., Suite 310
Kingston ON K7K 1Z7
CANADA
E-mail: office@iamg.org
FAX: (613) 531-0626
Tel: (613) 544-6878

The office will handle membership applications, renewals and dues, corrections to member addresses, updating of the membership database on the web, problems of missing journals, passwords for electronic subscriptions to Computers & Geosciences, orders for monographs, the Silver CD and the Cancun Proceedings CD, requests for the IAMG brochure, and will direct particular enquiries to the appropriate IAMG Officer, Council member or committee chair.



Webmaster anyone?

The IAMG is looking for a new webmaster. **Eric Grunsky**, who originally established the site in June 1995, has decided to step down from this role. He will continue his original role of managing the ftp site for Computers & Geosciences program code. If anyone is interested in taking on the role, please contact Eric Grunsky at egrunsky@iamg.org.

The role of webmaster involves:

- managing and backing up the website information
- updates to the pages on a timely basis
- semi-annual reports of website activity
- a commitment to timely updates and monitoring of activities and council requests
- working with the IAMG office
- implementing changes in the web site to keep up with developing website technologies



Member News

Ghost sightings

At the AAPG meeting in Denver, **Dan Merriam** startled some old friends and acquaintances, causing some people to exclaim: "What, you are not dead?" It turned out to be a case of mistaken identity. Somebody had reported the news of the passing of Dan Miller and apparently the name changed (by Freudian slip?) in the course of going through the grapevine. Dan Merriam is in fact alive and well and the reports of his demise were greatly exaggerated.



New Orientation for Margaret Armstrong and Alain Galli

As many IAMG members know, we have been interested in finance, especially derivatives, risk and real options, for several years. With Michel Schmitt's support we built up a new option (major) in quantitative finance for undergraduates at the École des Mines which is now up and running. On the research side we have focused on using real options to evaluate mining and oil projects. But it has been proving difficult to keep up our traditional activities in geostatistics while developing new ones in finance, so we have decided to concentrate on finance fulltime in the future. As you can imagine, after more than 20 years in the Centre Géostatistique, this has not been an easy decision to make.

Over the past year we have developed close links with the Economy group, the CERNA, at the École des Mines and have finally joined them on 15 October.

Jacques Rivoirard and Helene Beucher will be in charge of mining and petroleum geostats respectively and Gaëlle Le Loch has taken over as the head of the CFSG course. Our new postal address is:

CERNA
Ecole des Mines de Paris,
60 Bvd St Michel
75272 Paris cedex 06

Our new phone and fax numbers will be

	<i>Margaret Armstrong</i>	<i>Alain Galli</i>
Phone	33 1 4051 9313	33 1 4051 9314
Fax	33 1 4407 1046	33 1 4407 1046
Email	armstrong@cerna.ensmp.fr	galli@cerna.ensmp.fr



Prokoph starts Speedstat

In late June 2001, I have formed a statistical consulting business in Canada that specializes in advanced techniques of time-series and image analysis (e.g., wavelet analysis, fractal and non-linear methods) for Earth, Health & Environmental Sciences (see www.geocities.com/speedstat). The name of this business is SpeedStat and should be a remainder of data that are analyzed over time or – for geoscientist over depth/ distance. So far, the business is doing well with "Climate Change" projects, but projects applied to industry such as wire-line logging analysis and (seismic) image analysis are welcome. I am looking forward to present some new time-series analysis techniques next year in Berlin at the IAMG.

Andreas Prokoph
General Manager of Speedstat and
Postdoctoral Assistant at the University of Ottawa (Canada).

John Butler †

John Butler died in October of cancer. See Alex Woronow's obituary on page 15. He had been a very active associate editor of Computers & Geosciences since 1994, and on the editorial board previously under Dan Merriam. Graeme Bonham-Carter recently wrote a short editorial about his contribution to C&G that will appear in the first 2002 issue of the journal. He will be sadly missed.

He was also recently made a member of the Student Grants Committee.

The Chairman of the Department of Geosciences at the University of Houston, Dr John F Casey, has started as scholarship fund in memory of John Butler. IAMG has made a contribution.

John Casey <jfcasey@uh.edu> writes: We are now facing the difficult question of what to do with John's web site (see <www.uh.edu/~jbutler/professor/butler.html>). It is a resource that we all use, but most of us do not have the time or skill sets to do what John has done and keep up with new material and broken links etc. I am wondering if you or your group would have any ideas? We do not want to lose this as a resource for the community.



Susanna Sirotinskaya writes: My e-mail has changed to: <ssirot@server1.ppgem.ufrgs.br> and my official address is Susanna Sirotinskaya, Demin (Departamento de Engenharia de Minas), UFRGS, Av. Osvaldo Aranha 99, Sala 502b CEP 900135-190, Porto Alegre - RS, Brasil

I am doing research at the UFRGS (Universidade Federal do Rio Grande do Sul), and also I am delivering lectures, in Portuguese, with the support and active participation of Prof. Dr. Adelir Strieder, for a group of post-graduate students on "Elements of the mathematical logic and its application in integrating and modeling of geological data and events". Further, I am participating in supervising of postgraduate research projects which are realized with the help of my methods. Next year, Prof. Strieder and I are going to publish a book, in Portuguese, prepared on the basis of mentioned course of lectures and completed with geological examples on the materials of Brazil.



Diploma for Alexander Brenning

Alexander Brenning received his Diploma in Applied Mathematics from the Department of Mathematics and Computer Sciences of Freiberg University of Mining and Technology, Germany, on completion of his diploma thesis „Geostatistics without stationarity assumptions within geographical information systems“ supervised by Helmut Schaebe.



K. Gerald van den Boogaart receives Doctorate

K. Gerald van den Boogaart received his PhD from the Department of Mathematics and Computer Sciences of Freiberg University of Mining and Technology, Germany, on completion of his PhD thesis „Statistics for individual crystallographic orientation measurements“ supervised by Helmut Schaebe.



IAMG Annual Meeting - Images of Cancun 2001

Papers presented at the meeting are available at the web site:
<http://www.kgs.ukans.edu/Conferences/IAMG/program.html>



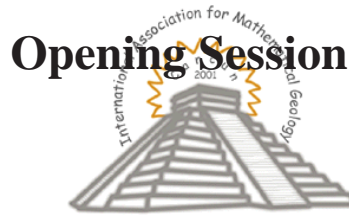
Registration line with Chair Gina Ross welcoming attendees



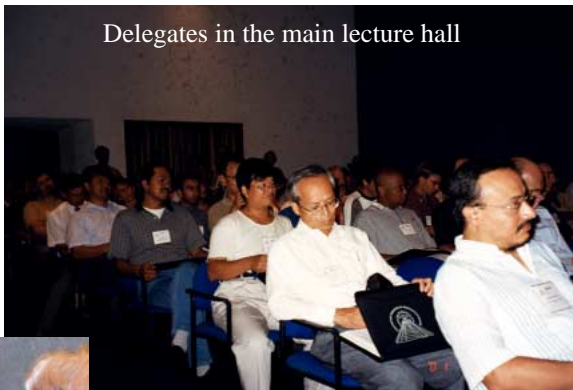
The venue: Hotel Camino Real with lagoon and pool area



Chair Gina Ross welcoming Moises Dávila of the Local Committee



Delegates in the main lecture hall



IAMG President
Graeme Bonham-Carter



Dan Merriam making the presentation

John Harbaugh was honored for his 75th birthday with a special Festschrift volume of contributions by friends and former students

John and his wife Audrey



Mike Price of ESRI (the
sponsoring organization)



Publications Committee Meeting



Jaime Gomez-Hernandez Joanne DeGraffenreid
Harald Poelchau Mike Hohn (Chair)



Graeme Bonham-Carter Ed Sharp
Dan Merriam Roussos Dimitrakopoulos

The Board Meeting at the



Carol Gotway-Crawford and
husband Charles



Geoff Bohling Roy Kouda
Graeme Bonham-Carter Vera Pawlowsky
Eric Grunsky

Maria-Theresia
Schafmeister



Delegates gathered at the Hotel lagoon for the ice breaker reception

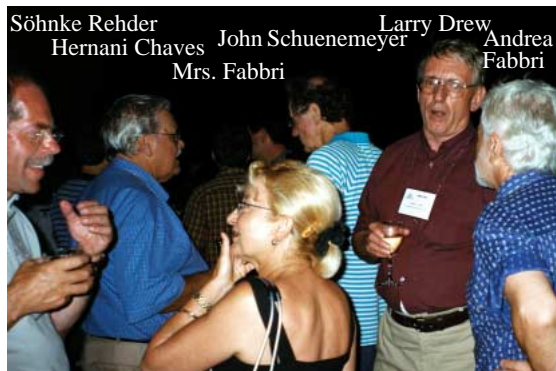


Vera Pawlowsky Maria-Theresia
Schafmeister HeinzBurger

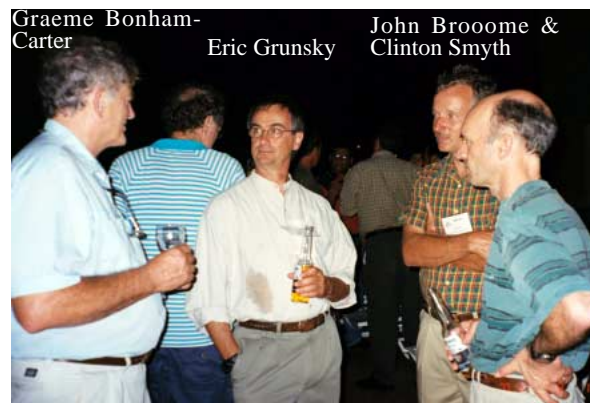
The Icebreaker at the Hotel Lagoon



Frits Agterberg & Klaudia Oleschko



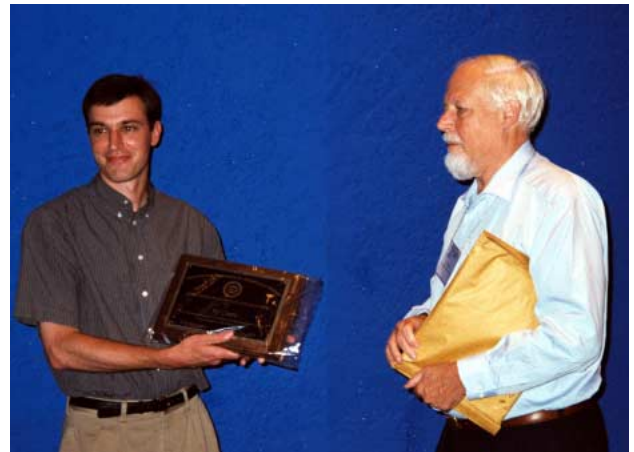
Söhnke Rehder John Schuenemeyer Larry Drew Andrea
Hernani Chaves Mrs. Fabbri Fabbri



Graeme Bonham-Carter John Broome &
Eric Grunsky Clinton Smyth



President Graeme Bonham-Carter presents the 2001 Felix Chayes Prize to James Nicholls



Jef Caers receives the 2001 Andrei Borisovitch Vistelius Research Award from Vice President Frits Agterberg

La Joya Restaurant



HeinzBurger

Michael Hohn

Frits Agterberg

John Davis

JoAnne DeGraffenreid

Ed Sharp

Margaret Armstrong

Ricardo Olea

Tom Jones



Chair Gina Ross was confined to a wheelchair after injuring her ankle - here with her personal aide and husband Dave Collins



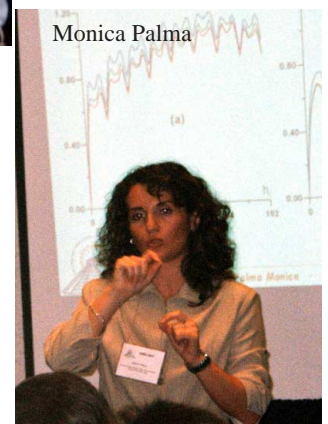
Past President Ricardo Olea presents the 2000 John Cedric Griffiths Teaching Award to Larry Drew



James Syvitski



Jan Harff



Monica Palma

Awards and Lectures



A special welcome to our group (Michael McCullagh's back in view) at the entrance to Xcaret Park

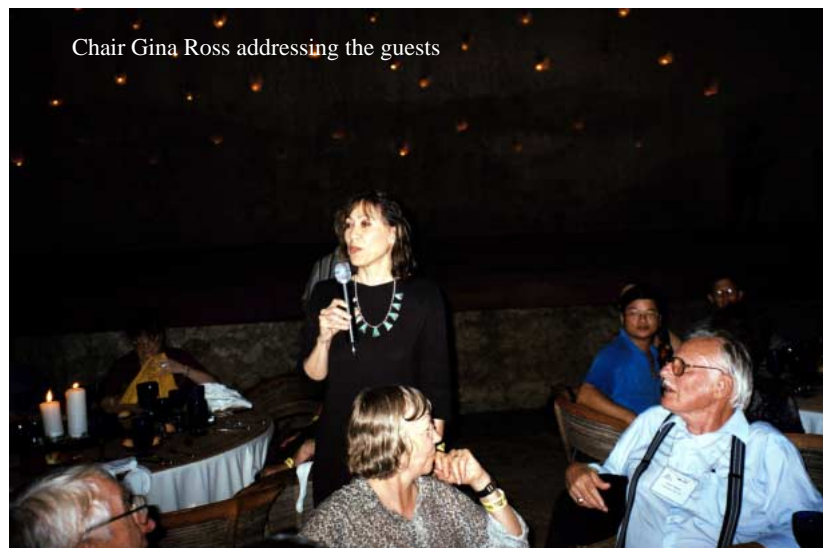
Excursion to Xcaret and Convention Dinner



Dinner at the cave restaurant



Mayan Ball Game court



Chair Gina Ross addressing the guests

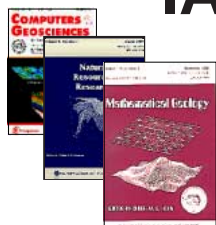


Three IAMG councilors from Japan:
Roy Kouda, Tetsuya Shoji, and Niichi Nishiwaki



Parade of waiters at the Cenote Restaurant

IAMG Journal Report



Mathematical Geology 2000

Best Paper Award

C. D. White and B. J. Willis are the winners of the MG 2000 Best Paper award. Their paper:

"A method to estimate length distributions from outcrop data." in *Mathematical Geology* 32(4), 389-419 has been selected by a panel as the Best Paper for 2000 in the journal. Winners of the Best Paper award receive a free subscription to *Mathematical Geology* for one year, paid by the Association. They also receive a certificate signed by the IAMG President and by the Secretary General.

JOURNAL CONTENTS

Natural Resources Research

Volume 10, number 3 (2001)

Quantitative analysis of mineral resources for strategic planning, by M. Scott and R. Dimitrakopoulos

Traditional and new ways to handle uncertainty in geology, by G. Bárdossy and J. Fodor

Geologic coal assessment: the interface with economics, by E.D. Attanasi

Additional samples: where they should be located, by G.G. Pilger, J.F.C.L. Costa, and J.C. Koppe

Lithodiversity and its spatial association with metallic mineral sites, Great Basin of Nevada, by M.J. Mihalasky and G.F. Bonham-Carter

A new model for heat flow in extensional basins: radiogenic heat, asthenospheric heat, and the McKenzie model, by D.W. Waples

NRR Volume 10, number 4 (2001)

The importance of history; an editorial, by D.F. Merriam

A history of regression and related model-fitting in the earth sciences (1636?-2000), by Richard J. Howarth

Appreciation of contributions by Georges Matheron and John Tukey to a mineral-resources research project, by F.P. Agterberg

Andrei Borisovich Vistelius: a dominant figure in 20th Century Mathematical Geology, by D.F. Merriam

NRR Volume 11, number 1 (2002)

Size scaling of cross-correlation between multiple variables, by B. Oz and C.V. Deutsch

Environmentalism and natural aggregate mining, by L.J. Drew, W.H. Langer, and J.S. Sacks

Multicriteria geologic data analysis for mineral favorability mapping - application to a metal sulphide mineralized area, Ribeira Valley Metallogenic Province, Brazil, by C.C. de Araújo and A.B. Macedo

Where are porphyry copper deposits spatially localized? a case study in Benguet Province, Philippines, by E.J.M. Carranza and M. Hale

Some probability applications to oil exploration, by M. Anderson and R.S. Gullco

SHORT NOTE

Potentialities of a neglected igneous database IGBSDATS, by R. Torley and A. McBirney.

Computers & Geosciences

Visit the journal at

<http://www.elsevier.nl/locate/jnlmr/00398>

Volume 27, Issue 6 (2001)

Numerical models of marine sediment transport and deposition — J.P.M. Syvitski, D.B. Bahr

SEDTRANS96: the upgraded and better calibrated sediment-transport model for continental shelves — M.Z. Li, C.L. Amos

STORMSED1.0: hydrodynamics and sediment transport in a 2-D, steady-state, wind- and wave-driven coastal circulation model — J.L. Cookman, P.B. Flemings

A two-dimensional, time-dependent model of suspended sediment transport and bed reworking for continental shelves — C.K. Harris, P.L. Wiberg

Exponential approximations to compacted sediment porosity profiles — D.B. Bahr, E.W.H. Hutton, J.P.M. Syvitski, L.F. Pratson

BANGID: - a one-dimensional, Lagrangian model of subaqueous turbid surges — L.F. Pratson, J. Imran, E.W.H. Hutton, G. Parker, J.P.M. Syvitski

A numerical model of submarine debris flow with graphical user interface — J. Imran, P. Harff, G. Parker

2D SEDFLUX 1.0C: - an advanced process-response numerical model for the fill of marine sedimentary basins — J.P.M. Syvitski, E.W.H. Hutton

Another Node On the interNet — J.R. Carr

C&G Volume 27, Issue 7 (2001)

A MATLAB implementation of the minimum relative entropy method for linear inverse problems — R.M. Neupauer, B. Borchers

A program for 2D modeling (cross) correlogram tables using fast Fourier transform — X. Ma, T. Yao

Geomorphometric mapping of Zagros Ranges at regional scale — G.Ch. Miliareisis

Fractscript: A macro for calculating the fractal dimension of object perimeters in images of multiple objects — C.G. Dillon, P.F. Carey, R.H. Worden

Prediction of historical forest habitat patterns using binomial distributions and simple Boolean logic from high spatial resolution remote sensing — N.C. Coops, P.C. Catling

Absolute and relative testing of gravimetric geoid

models using Global Positioning System and orthometric height data — W.E. Featherstone

A stochastic "precipiton" model for simulating erosion/sedimentation dynamics — A. Crave, P. Davy

Parallel processing for finite-difference modeling of ice sheets — M. Mineter, N. Hulton

XML - an opportunity for <meaningful> data standards in the geosciences — S.W. Houlding

Landform analysis of slope movements using DEM in Higashikubiki area, Japan — J. Iwahashi, S. Watanabe, T. Furuya

An interactive graphical system for XBT data quality control and visualization — P. Thadathil, A.K. Ghosh, J.S. Sarupria, V.V. Gopalakrishna

Surface interpolation from irregularly distributed points using surface splines, with Fortran program — Z.W. Yu

MODAN-a computer program for estimating mineral quantities based on bulk composition: windows version — A. Dogan Paktunc

Modifications to KB2D program in GSLIB to allow use of tabulated covariances calculated with fast Fourier transform method — C. Hervada-Sala, E. Jarauta-Bragulat

Applied Mathematics in Hydrogeology — X. Zhan (Book Review)

Another Node On the interNet — L. Phipps

C&G Volume 27, Issue 8 (2001)

GeoComp 99: GeoComputation and the Geosciences — J. Ehlen, R.S. Harmon

A predictive GIS model for mapping potential gold and base metal mineralization in Takab area, Iran — H.H. Asadi, M. Hale

Failure prediction in automatically generated digital elevation models — M.J. Gooch, J.H. Chandler

Investigating the role of saliency analysis with a neural network rainfall-runoff model — R.J. Abrahart, L. See, P.E. Kneale

Assessing uncertainty in estimates with ordinary and indicator kriging — C.D. Lloyd, P.M. Atkinson

A geostatistical investigation of the spatial variation of radon in soil — M.A. Oliver, A.L. Khayrat

An object-oriented framework for distributed hydrologic and geomorphic modeling using triangulated irregular networks — G.E. Tucker, S.T. Lancaster, N.M. Gasparini, R.L. Bras, S.M. Rybarczyk

Object-oriented modeling of data sources as a tool for the integration of heterogeneous geoscientific information — H. Gärtner, A. Bergmann, J. Schmidt

Multi-model data fusion for hydrological forecasting — L. See, R.J. Abrahart

Self-organization in fluvial landscapes: sediment dynamics as an emergent property — D.H. De Boer

Principles of semantic modeling of landform structures — M. Dehn, H. Gärtner, R. Dikau

Another Node On the interNet — J.A. Botti



Conference Reports

INVITED PAPER MEETING DURING ISI SESSION IN SEOUL, KOREA

The IAMG is an affiliated member and maintains formal contacts with the International Statistical Institute (ISI). On August 23, 2001, during the 53rd Session of the ISI in Seoul, Korea, an IAMG-sponsored Invited Paper Meeting (IPM79) was held on the topic "Extreme Value Distributions in Geology". The program consisted of:

0. Organizer's introduction (Frits Agterberg, Canada)
1. Scaling Stratigraphic Events Using Extreme Occurrences (Vera Pawlowsky-Glahn, Spain; co-authored by Juan-José Egozcue)
2. Geo-Anomaly: The Extreme Value in Geology and Its Application in Quantitative Assessment of Mineral Resources (Zhao Pengda, China; co-authored by Chen Yongqing)
3. Decomposition of Geochemical Map Patterns Using Scaling Properties to Separate Anomalies from Background (Qiuming Cheng, Canada).

In recent years, extreme value theory has resulted in interesting new methodologies. In the unified Extreme Value (EV) model, a single parameter, the extremal index γ , is used to characterize all EV distributions: $\gamma=0$ for the Gumbel distribution that is determined by scale and location parameters only, $\gamma>0$ for the heavy-tailed Fréchet class, and $\gamma<0$ for the Weibull class. There is an intimate connection between the concept of extremal index and that of fractal dimension. IPM79 was concerned with EV distributions in stratigraphy, economic geology and geochemistry, respectively.

Vera Pawlowsky presented a new model for extreme occurrences of biostratigraphic events. Observations of precedence can be viewed as realizations of a multinomial experiment. Normal as well as any combination of Gumbel and Weibull or other EV distributions consistent with empirical evidence can be used. Numerical solutions were obtained using Fourier transforms in a maximum likelihood approach.

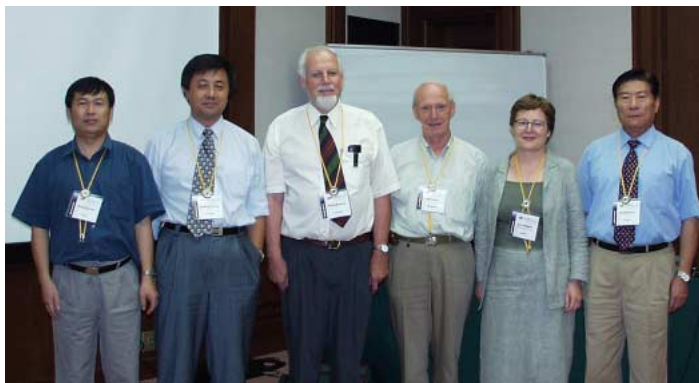
Zhao Pengda modeled anomalies or outliers in the Earth Sciences as extreme values. His paper was concerned with relationships between "geo-anomaly" and the formation and spatial distribution of mineral resources. Ore body targets can be delineated and assessed using the geo-anomaly principle.

Qiuming Cheng introduced a new fractal/multifractal method. In a case study, the two-dimensional power spectrum of airborne gamma ray spectrometer data was divided into separate scale-invariant parts corresponding to anomaly and background, respectively. The radiometric anomalies correlate well with occurrences of U-Sn-W mineralization spatially and temporally associated with Devonian granite intrusives in southwestern Nova Scotia, Canada.

Twenty-one scientists attended the meeting. The three papers presented have been published in the *Bulletin of the International Statistical Institute*, Tome LIX, Book 2, p. 471-484. Prof. Jef Teugels (Belgium) was the invited discussant. His comments will be published in the *ISI Bulletin* in the near future.

The IAMG has been invited to organize, as a Guest Society, an invited paper meeting at the 54th Session of the ISI to be held in Berlin, Germany, August 13-20, 2003. The preliminary title of this newly proposed joint meeting is: IPM 77 "Recent Statistical Advances in Geological and Environmental Applications".

Frits Agterberg



Participants in Seoul 2001 Extreme Events meeting. From left to right: Chen Yongqing, Qiuming Cheng, Frits Agterberg, Jef Teugels, Vera Pawlowsky-Glahn, and Zhao Pengda.

IGC 2004 Florence: IAMG Proposals

Antonella Bucciatti, IAMG Special Councilor for the International Geological Congress 2004 in Florence, Italy, has submitted the following proposals for IAMG-sponsored symposia, workshops and short courses to the IGC secretariat. If you have any further suggestions or comments about IAMG's contributions to IGC 2004, please get in touch with Antonella (see p. 2).

SYMPOSIA

- New applications of mathematical Statistics in the Earth Sciences F. Agterberg (Geological Survey of Canada, Ottawa Canada) and Qiuming Cheng (York University, Canada)

- Geological constraints and geostatistical methods: new trends in reservoir characterization (IAMG)

B. Doligez (Institut Français de Pétrole, Geology, Rueil-Malmaison, France), H. Beucher (Ecole des Mines, Géostatistique, Fontainebleau, France)

- Size, shape and spatial orientation of particles in particulate volcanic and volcanoclastic deposits: classic and new methods of textural analysis and insights about transport and depositional mechanisms

B. Capaccioni (University of Urbino, Institute of Volcanology and Geochemistry, Urbino, Italy)

- New methods of landslide hazard & risk prediction, representation and perception using advanced numerical methods (IAMG & CoGeoEnvironment)

A. G. Fabbri (ITC, Enschede, The Netherlands), F. Guzzetti (IRPI, Perugia, Italy), C.J.F. Chung (Geological Survey of Canada, Ottawa, Canada)

- Examples of Innovative Geoscience Information Delivery

Session A: Examples of Innovative Geoscience Information delivery J. Broome (Earth sciences sector, Natural Resources, Canada, Ottawa, Canada) & I. Jackson (British Geological Survey, Keyworth, United Kingdom)

Session B. Dictionaries, Standards, and Technologies for Geoscience Data Management and Delivery

J. Giles (British Geological Survey, Keyworth, Nottingham, UK) & K. Asch (Bundesanstalt für Geowissenschaften und Rohstoffe, Federal Institute for Geosciences and Natural Resources, Hannover, Germany)

Session C: National/International Geological Map Databases

P. Nehlig (BRGM, Orleans, France) & E. Grunsky (Alberta Geological Survey, Edmonton, Alberta, Canada)

- Coastline change: interrelation of climate and geological processes (IAMG) J. Harff (Baltic Sea Research Institute, Germany), W. Hay (GEOMAR, Kiel, Germany), D. Tetzlaff (Western-Geco, Houston, Texas, USA)

- New Century's Information Science Technology for Resource Exploration Koike Katsuaki (Kumamoto University, Department of Civil Engineering, Japan)

- Systematics in Sedimentary Petrology (IAMG, IUGS Commission on Sedim. Petr., others...)

N. Nishiwaki (Nara University, Faculty of Social Research, Nara City, Japan)

- Compositional data analysis: from theory to practice (IAMG) V. Pawlowsky-Glahn (Universitat de Girona, Informàtica i Matemàtica Aplicada, Spain), H. Burger (Freie Universität Berlin, Geoinformatik, Berlin, Germany)

- Extreme Value Modelling in Mineral Prediction and Assessment Zhao Pengda (China University of Geosciences, Mineral Resources, Beijing, P.R. China)

- Geographic Information Systems (GIS) for Spatial Analysis of Exploratory Datasets for Mineral Exploration and Environmental Assessments Qiuming Cheng (York University, Canada), G. Bonham-Carter (Geological Survey of Canada, Ottawa, Canada)

- Statistical and Mathematical Methods in Land Resource Survey:

Application in Environmental Geochemistry (SOGEI, Italian Geochemical Society & IAMG)

A. Bucciatti (Department of Earth Sciences, University of Florence, Italy) and M. Vetushi-Zuccolini (University of Genova, DIPTERIS, Italy)

- Coupled Process-Response Models in Sediment Transport and Stratigraphy. J.M. Syvitski (University of Colorado, Boulder, USA)

WORKSHOPS

EDAM - Environmental Data Mining using Machine Learning Algorithms (artificial neural networks, Support Vector Machines): lecture, seminars and practice (IAMG): M. Kanevski (IDIAP, Machine Learning Group, Martigny, Switzerland) (8-16 hours, 1-2 days, class with computers, max participants 30, min participants 10).

cont'd on p. 14



INTERNATIONAL ASSOCIATION FOR MATHEMATICAL GEOLOGY YEAR 2002 MEMBERSHIP APPLICATION

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- ☐ Mathematical Geology US\$ 35.00
☐ Computers & Geosciences, regular US\$ 75.00
☐ Computers & Geosciences, student (proof of enrollment required) US\$ 37.50
☐ Computers & Geosciences, electronic subscription, regular or student* US\$ 37.50
☐ Natural Resources Research US\$ 55.00

* Password and instructions will be assigned by IAMG Office

OPTIONAL: IAMG Monograph Series (Prices represent 30% discount over non-member price; include shipping)

- ☐ #2: "Oil and Gas Forecasting – Reflections of a Petroleum Geologist" by Lawrence J. Drew... US\$ 49.00
☐ #3: "Geostatistical Glossary and Multilingual Dictionary" edited by Ricardo A. Olea US\$ 38.50
☐ #5: "Computers in Geology: 25 Years of Progress" edited by J.C. Davis and U.C. Herzfeld... US\$ 52.50
☐ #6: "Modern Spatiotemporal Geostatistics" by George Christakos US\$ 45.50

OPTIONAL: CD's

- ☐ Computers & Geosciences Silver CD: 25 years of computer code US\$ 25.00
☐ Proceedings IAMG'2001 in Cancun, on CD US\$ 10.00

TOTAL US\$ _____

NEW IN 2002: IAMG Newsletter will be published on the website with an email notification to members (requires email address above). To receive a hardcopy of the Newsletter, please check below:

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Upcoming Meetings

EURESCO Conference on GEOVISUALISATION, Albufeira, Portugal, **9-14 March 2002**. <http://www.esf.org/euresco/02/1c02179>

AAPG Annual Convention and Exhibition, Houston, Texas, **10-13 Mar 2002**. Am. Assoc. of Petroleum Geologists Convention Dept., 1444 S. Boulder Ave., Tulsa, OK 74119, USA, Phone: 800-364-2274 or 918-560-2679, E-mail: convene@aapg.org, Web: <http://www.aapg.org>

AIME-American Institute of Mining, Metallurgical & Petroleum Engineers, Annual Meeting, Nashville, TN, **10-13 Mar. 2002**. Three Park Avenue, New York, NY 10016-5998. Phone: 212-419-7676. Fax: 212-419-7671. Email: aimeny@aimeny.org. Internet: www.idis.com/aime/

GLOBAL EXPLORATION 2002 - Integrated Methods for Discovery, Denver, Colorado, USA, **14-16 Apr 2002**. Society of Economic Geologists. Christine Horrigan, 7811 Shaffer Parkway, Littleton CO 80127, Phone: 720.981.7210 FAX: 720.981.7874 EMAIL: SEG2002@segweb.org Web: <http://www.seg2002.org>

7th Conf. of the Baltic Geologists "BALTIC-7", R/V "Akademik Sergey Vavilov", Kaliningrad-port, Russian Fed., **21-27 April 2002**. **Supported by IAMG**. Atl. Branch of P.P. Shirshov Inst. of Oceanology RAS (ABIORAS), Kaliningrad 236000, prospect MIRA, 1, E-mail: abio@atlas.baltnet.ru; ioran@atlas.baltnet.ru, Tel. (0112) 21-65-78; (0112) 21-57-39; Fax (0112) 51-69-70

4th Int'l Conf. on Advances in FLUID MECHANICS, Ghent, Belgium, **15-17 May 2002**. Conf. Secretariat, AFM 2002, shobbs@wessex.ac.uk, Web: <http://www.wessex.ac.uk/conferences/2002/afm02>

BASEMENT-COVER CONNECTIONS, Rolla, Missouri, USA, **19-24 May 2002**. Int'l Basement Tectonics Association. John P. Hogan, Dept. of Geology & Geophysics, Univ. of Missouri-Rolla, Rolla, MO 65409-0410, Phone: 573-341-4618, EMail: jhogan@umr.edu

EAGE - European Assoc. of Geoscientists and Engineers (63rd Conf. & Technical Exhibition), Florence, Italy, **27-30 May 2002**. Conf. Dept., PO Box 59, 3990 DB Houten, The Netherlands, Phone: +33 30 6354066, EMail: eage@eage.nl, Web: <http://www.eage.nl/conferences>

SPWLA - Society of Professional Well Log Analysts, Ann. Symposium, Oiso, Japan, **2-6 June 2002**. SPWLA, 8866 Gulf Freeway, Suite 320, Houston, TX 77017. Phone: 713-947-8727. Fax: 713-947-7181. Email: spwla@spwla.org. Internet: www.spwla.org/

ModelCARE'2002, 4th Int'l Conf. on Calibration and Reliability in GROUNDWATER MODELLING, Prague, Czech Republic, **17-20 June 2002**. ModelCARE'2002, c/o Garant Ltd, Opletalova 22, CZ-11000 Prague 1, Czech Republic ; Ph: +420-2-8400 1444; Fax: +420-2-8400 1448; modelcare2002@garant.cz, www.garant.cz/ModelCARE2002

RISK ANALYSIS 2002 - Computer Simulation in Risk Analysis and Hazard Mitigation, Sintra, Portugal, **19-21 June 2002**. Risk Analysis 2002, Wessex Inst. of Technology, Ashurst Lodge, Ashurst, Southampton, SO40 7AA, UK. Ph: 44 (0) 23 80 293223. Fax: 44 (0) 23 80 292853. E-mail: rgreen@wessex.ac.uk; www.wessex.ac.uk/conferences/2002/risk02/index.html

GEOSPATIAL Theory, Processing and Applications, Ottawa, ON, Canada, **09-12 Jul 2002**. Tom Herbert, Executive Director, Canadian Institute of GEomatics, 1390 Prince of Wales, Suite 400, Ottawa, ON Canada K2C 3N6, Phone: 613/224-9851, FAX: 613/224-9577, EMail: exdiricig@netrover.com, Web: <http://www.geomatics2002.org>

2nd Symp. on COMPUTATIONAL MODELING OF MULTI-SCALE PHENOMENA, National Laboratory of Scientific Computation (LNCC/MCT), Petropolis, Rio de Janeiro, Brazil, **05-08 August 2002**. <http://www.lncc.br/scale-up>, e-mail: scale-up@lncc.br

JOINT STATISTICAL MEETINGS, New York, NY, **11-15 August 2002**. Sponsored by ASA, ENAR, WNAR, IMS, and SCC. ASA, 1429 Duke St., Alexandria, VA 22314-3415; (703) 684-1221, E-mail meetings@amstat.org, <http://www.amstat.org/meetings/jsm/>

2nd Biot Conference on POROMECHANICS, Grenoble, France, **26-28 August 2002**. Jean-Louis Auriault, Université Joseph Fourier, Domaine universitaire, BP 53, F-38041 Grenoble Cedex 9, tel.: (33) (0)4 76 82 51 68, fax: (33) (0)4 76 82 70 43, e-mail: bio2002@hmg.inpg.fr, <http://geo.hmg.inpg.fr/biot2002>

Emerging Concepts in ORGANIC PETROLOGY and GEOCHEMISTRY, Banff, Alberta, Canada, **31 Aug -04 Sep 2002**. Dr. Martin Fowler, Geological Survey of Canada, 3303-33rd St. NW, Calgary, Alberta T2L 2A7 Canada, Phone: 403-292-7038, FAX: 403-292-7159, EMail: Mfowler@nrcan.gc.ca, Web: <http://www.cscop-tsop2002.com>

ECMOR VIII, Biennial European Conf. on the Mathematics of Oil Recovery, Freiberg Univ. of Mining and Technology (TU Bergakademie Freiberg), Freiberg, Germany, **3-6 Sept. 2002**. EAGE, PO Box 59, NL-3990 DB Houten, The Netherlands. Phone: +31 30 635 40 55. Fax: +31 30 634 35 24. Email: eage@eage.nl. Internet: www.eage.org/.

International Association for MATHEMATICAL GEOLOGY 7th Int'l Conference, Berlin, Germany, **15-20 September 2002**. IAMG'2002 - Conference Secretariat, Freie Universität Berlin, Malteserstr. 74-100, D-12249 Berlin, Germany, phone +49-30-838 70570, fax +49-30-775 2075, email: iamg2002@zedat.fu-berlin.de, <http://www.fu-berlin.de/iamg2002/>

GITA - Geospatial Information & Technology Association, GIS for Oil & Gas Conf. and Exhibition 2002, Houston, Texas, **23-25 Sept. 2002**. GITA, 14456 East Evans Avenue, Aurora, CO 80014. Phone: 303-337-0513. Fax: 303-337-1001. Email: staff@gita.org, Internet: www.gita.org.

SEG - Society of Exploration Geophysicists, Annual Meeting and International Exposition, Salt Lake City, UT, **6-11 Oct. 2002**. SEG, P.O. Box 702740, Tulsa, OK 74170-2740. Phone: 918-497-5500. Fax: 918-497-5557. Email: meeting@seg.org. Internet: www.seg.org/.

Geological Society of America (Annual Meeting), Denver, Colo., USA, **28-31 October 2002**. GSA Meetings Dept., P.O. Box 9140, Boulder, CO 80301-9140, USA; tel: +1 303 447 2020; fax: +1 303 447 1133; e-mail: meetings@geosociety.org; Website: <http://www.geosociety.org/meetings/index.htm>

SIAM Conf. on Mathematical and Computational Issues in the GEO-SCIENCES (GS03), Austin, Texas, **17-20 March 2003**. meetings@siam.org

GeofluidsIV: 4th int'l conf. on fluid evolution, migration and interaction in sedimentary basins and orogenic belts, Utrecht, The Netherlands, **12-16 May 2003**. TNO-National Geological Survey, Ms. J.M. Verweij, PO Box 80015, 3508 TA Utrecht, The Netherlands, Phone: +31 30 256 4600 FAX: +31 30 256 46 05 EMail: j.verweij@nitg.tno.nl Web: <http://www.nitg.tno.nl>

2003 JOINT STATISTICAL MEETINGS, San Francisco, CA, **3-7 August 2003**. ASA, 1429 Duke St., Alexandria, VA 22314-3415; (703) 684-1221, E-mail meetings@amstat.org, <http://www.amstat.org/meetings/jsm/>

ISI - International Statistical Institute, 54th Biennial Session (includes meetings of the Bernoulli Society, the International Association for Statistical Computing, the International Association of Survey Statisticians, the International Association for Official Statistics and the International Association for Statistical Education), Berlin, Germany, **13-20 August 2003**. ISI Permanent Office, Prinses Beatrixlaan 428, P.O. Box 950, 2270 AZ Voorburg, The Netherlands. Tel.: +31-70-337-5737; Fax: +31-70-386-0025. Email: isi@cbs.nl, www.isi-2003.de

IAMG 2003 Portsmouth, United Kingdom, **7-13 Sept 2003**. Dr John Whalley, IAMG 2003, School of Earth and Environmental Sciences, Univ. of Portsmouth, Burnaby Rd Portsmouth PO1 3QL, UK ,Tel: +44 23 9284 2259 Fax: +44 23 9284 2244, info@iamg2003.com and iamg2003@port.ac.uk

IGC - International Geological Congress, Florence, Italy, **15-22 Aug. 2004**. Internet: www.iugs.org

IGC2004 Florence cont'd from p. 12

SHORT COURSES

- The statistical analysis and interpretation of compositional processes: John Aitchison (University of Glasgow, Department of Statistics, United Kingdom) (12 hours, 2 days, max participants 30, min participants 10, class with computers)

- Compositional data analysis: from theory to practice: C. Barcelo-Vidal (Universitat de Girona, Informatica i Matematica Aplicada, Spain), H. von Eynatten (Germany), S. Thio-Henestrosa (Spain) (12 hours, 2 days, max 30 participants, min 10 participants, class with computers).

- Prediction models for spatial data analysis: application to landslide hazard mapping and mineral exploration: A. G. Fabbri (ITC, Enschede, The Netherlands) (12 hours, 2 days, max 24 participants, min 8 participants, class with computers).

- GeoDAS - Specialized GIS Technologies for Spatial Analysis and Interpretation of Exploratory Geo-datasets for Mineral Exploration: Qiuming Cheng (York University, Canada), G. Bonham-Carter (Geological Survey of Canada, Ottawa, Canada) (8 hours, 1 day, max participants 40, min participants 10, class with computers).

John C. Butler 1941-2001

John was a scientist, a teacher, and an administrator. He won awards for in-classroom teaching and remote teaching. One instance of the former was a university-wide vote by undergraduates. All those awards reflect the fact that John enjoyed interacting with students, enjoyed teaching, and was good at it. In fact, he simply enjoyed and respected people.

His enjoyment of and respect for people carry a long way. This is undoubtedly the major reason why John was an excellent Chairman for the University of Houston Geosciences Department. He was chairman when I first joined the department in the early eighties, having arrived from a faculty that seemed to thrive on contention. It took me a while to adjust to the amiable faculty meetings that John ran. He spent most of the time at the meetings just listening. On the most important issues, he usually made off-line, unilateral decisions and came to each faculty member's office to discuss them. Maybe we did not all always agree, but we never distrusted his motives and always understood his point of view. As a whole, the Department undoubtedly made far fewer mistakes than would have been made in the midst of heated debates.

Interestingly, we also had few department committees. He did most of that type of business himself, leaving the young faculty time to develop as teachers and scientists. Somehow, though, John still found time for his own science. A mineralogist by training and data analyst by avocation, he found exploring the implications of compositional data to be his natural niche. His particular brand of analysis focused on forward modeling: attempting to delineate the range of problems that statistical procedures encounter when presented with compositional data. John was an early user of a "desktop computer" in those activities, and, quite early, he saw the need to equip geoscience students with computing skills. His data-analysis course heavily utilized a battery of early-model Apple computers. About the same time as John resigned from the Chairmanship to become Dean, he began taking a wider perspective on geosciences teaching. Coincident with that was the period of rapid expansion of the Internet. The results were the award-winning "Virtual Professor" <<http://www.uh.edu/~jbutler/anon/anonfield.html>> and a monthly editorial in *Computers & Geosciences* entitled "Another Node On the Network." Both of these focused on remote teaching via the Internet or computers and on teaching resources available on the Internet.

John was a valued colleague and resource for teachers, and a valued member of the mathematical geosciences community. His contributions and character will be missed.

*Alex Woronow
ExxonMobil*



Vassil T. Vuchev 1935-2001

We just received the news that Vassil T. Vuchev, the leading geomathematician in Bulgaria, died in September in Sofia. He was an early supporter of the Association and instrumental in promoting the Association's activities in Eastern Europe. He was born in the Village of Glojene, Lovech District, Bulgaria on 23 August 1935 and had worked most of his career with the Geological Institute of the Bulgarian Academy of Sciences in Sofia.

Vassil received a masters degree in petroleum geology from Leningrad Mining Institute (USSR) in 1958; a PhD from the Geological Institute of the Bulgarian Academy of Science in 1971; a bachelors degree in mathematics from Sofia University (Bulgaria) in 1975; and later a DSc. His special interests were in mathematical geology, statistics, pattern recognition, numerical classification, stochastic simulation, and rock mechanics analysis.

He was a research geologist for the All Union Petroleum Institute in Leningrad; a prospecting geologist for the Bulgarian Geological Survey; a Senior Research Scientist for the Bulgarian Academy of Sciences and an Associate Professor of



*Vassil (center) in 1982 with John Davis and Ricardo Olea
(photo courtesy of JoAnn DeGraffenreid)*

Mathematical Geology at Sofia University. He was a Visiting Exchange Scientist to the U.S. Academy of Sciences, to the Space Sciences Laboratory at the University of California, Berkeley and at the Department of Geology at Syracuse University in Syracuse, New York. He was the Visiting Research Scientist at the Kansas Geological Survey and he took part in Leg 79 on the Glomar Challenger from the Canary Islands to Brest, France.

He was a serious researcher but always enjoyed a good relaxing time of music, food and drink, and camaraderie. He will be sorely missed by his family, friends, and colleagues. A memorial is being composed now to be published later in *Math. Geology*.

Dan Merriam

Geoinformatik (Geoscience Informatics)
A New Curriculum at Freiberg (Germany) University of Mining and Technology

Starting in the winter term 2001/2002, Freiberg University of Mining and Technology offers a new diploma curriculum entitled "Geoinformatik" or "Geoscience Informatics". The new curriculum is jointly organized by the Department of Geosciences and the Department of Mathematics and Computer Sciences and offers students a well balanced combination of sciences (geology, physics, chemistry), applied mathematics and computer sciences directed towards geoscience applications of informatics encompassing the entire scope of geological science.

Informatics is the study of information technology, its development and application. Geoscience informatics is the field of study that deals with the collection, processing, availability and dissemination of geoscience data, analytical and numerical modeling of processes in the geo-sphere described by the data, and presentation and communication of geo-information and knowledge with digital media. It is based on methods of applied mathematics and informatics as well as on explorative methods for the geo-sphere and inferential methods for its governing processes. The creative combination of both informatics and geoscience methods is required for successful applications of geoscience informatics in geoscience education, research, exploration, and enterprise.

Relevant technologies and approaches include the formal study of geological information search and use, knowledge analysis and storage, user behavior and cognition, retrieval analysis, and preservation of information. Practical use of the Internet and Web, data mining, artificial intelligence and electronic publishing are but a few of the future applications.

Geoscience informatics incorporates virtually all areas of geology's affiliates including: Environmental Geology, Hydrogeology, Engineering Geology, Economic Geology, Energy and Mineral Resources, Geophysics, Geodesy, Tectonics, Volcanology, Petrology, etc.

The graduate programme of Freiberg's curriculum features Geodynamics, Numerical Modeling of Solid and Fluid Media, Management of Natural Resources, and Geomonitoring.

For more and continuously updated information the reader is referred to <http://www.geo.tu-freiberg.de/geoinformatik> (in German). Personal information available upon request from the Dean for Students Affairs, Helmut Schaebe (schaebe@geo.tu-freiberg.de)

International Association for Mathematical Geology

c/o Dr. Harald S. Poelchau
Kansas Geological Survey
1930 Constant Ave.
Lawrence, KS 66047
USA