IAMG Newsletter

No. 70 June 2005

Official Newsletter of the International Association for Mathematical Geology

Contents

Call for Award Nominations

The Association invites all members to submit nominations for the

2006 John Cedric Griffiths Teaching Award

and the

2006 Krumbein Medal –

the highest award given by the Association

Deadline: January 31st 2006

For details about prerequisites for nominations see the "Guidelines for Awards within the IAMG" on the Organization's web page, section "Guidelines and Procedures": http://iamg.org/guidelines.html. There you can also find a list of recipients and their laudatios.

Please have a look at it before sending your proposal!

The (informal) documents which should accompany each proposal are:
• a short statement summarizing the relevant qualifications of the nominee
• a curriculum vitae of the nominee

The proponent may also get additional information or support for his proposal from other members of IAMG and from successful examples published on our website.

Please submit documentation (preferable in electronic format) to:

Heinz Burger – Chair, Awards Committee
Freie Universität Berlin – Geoinformatik
Malteserstr. 74 – 100
12249 Berlin, Germany
e-mail: hburger@zedat.fu-berlin.de

Musings of what if.... turned into what actually did happen, when Eric Grunsky, the Association's web master, e-mailed me an extract of over 6000 records for individual downloads of various issues of the Newsletter. Of particular interest was the question: is there a difference in traffic when the Newsletter is available only on the website vs. when it's mailed to all members?

As you know, starting with NL56 in June 1998 we made pdf files available on iamg.org, the Association's Internet website, while still mailing hardcopy to all members. NL64 in July 2002 was the first issue to be published "only" on the website (actually, some hardcopies were still mailed out to those members requesting them). Electronic Newsletters were issued until June of last year (NL68). Then we went back to mailing hardcopy, this time with color printing.

From the Editor

The chart shows a clear increase in first month traffic when members were required to use the web for the Newsletter. On average (using only

Newsletter Downloads from IAMG.ORG

* incomplete reporting
** no e-mail notification ?
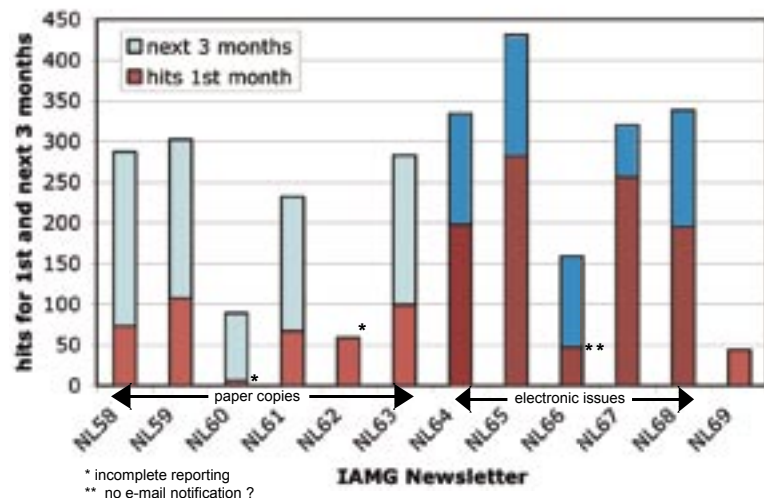
fully reported months) 195 copies were downloaded per issue vs 78 before. For the 3 months following, the trend is reversed: 121 vs 190. Averages for the first four months are 356 and 276, respectively.

Considering that some of the downloads stem from non-members, these numbers suggest that only about one half of our members actually looked at the Newsletter when it was only available on the website. The question is, why? May be it's a matter of inconvenience, or slowness of Internet connections. May be the e-mail notification wasn't as effective as envisioned. The strange anomaly for NL66 may in fact be due to difficulties in notifying members by e-mail. And for some of us a paper copy is still the preferred way to read.

So, the data indicates that Frits Agterberg was right when he decided last year to go back to bringing you the news by snail mail in a paper copy that you can hold in your hand (and, of course, lose on your desk).

Let us know what you think about it.

Harald S. Poelchau

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: **Frits P. Agterberg**,
Geological Survey of Canada, 601 Booth St., Ottawa,
Ontario K1A 0E8, Canada, Tel:+1 613 996-2374,
Fax: +1 613 996-3726, E-mail: agterber@nrcan.gc.ca

Vice President: **Nick Fisher**, ValueMetrics, Suite 251,
184 Blues Point Road, McMahons Point, NSW 2060, Australia,
Tel: +61 2 9922 1623 / +61 407 017 016, Fax: +61 2 9922 1635,
E-mail: nif@valuemetrics.com.au,

Secretary General: **Clayton V. Deutsch**, University of Alberta,
204C Civil/Electrical Eng. Bldg, Edmonton, Alberta T6G 2G7, Canada,
Tel: +1 780 492 9916, Fax: +1 780 492 0249,
E-mail: cdeutsch@ualberta.ca

Treasurer: **Gina A. Ross**, IAMG, c/o Gina Ross, PO Box 442504,
Lawrence, KS 66044-8939, USA, Tel: +1 785 842 6092,
E-mail: gr_iamg@hotmail.com

Past President: **Graeme F. Bonham-Carter**,
Geological Survey of Canada, 601 Booth St., Ottawa, Ontario K1A 0E8,
Canada, Tel: +1 613 996 3387, Fax: +1 613 996 3726,
E-mail: bonham-carter@nrcan.gc.ca

Past Secretary General: **Carol Gotway Crawford**, National Center for
Environmental Health, Centers for Disease Control and Prevention,
MS E70, 1600 Clifton Rd. NE, Atlanta, GA 30333, USA,
Tel: +1 404 639-2504, Fax: +1 404 639-1677, E-mail: cdg7@cdc.gov

Councilors

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

Qiuming Cheng, Dept. of Earth and Space Science and Engineering,
York University, 4700 Keele Street, Toronto, Ontario M3J 1P3, Canada,
Tel: +1 416 736 2100 (Ext: 22842), Fax: +1 416 736 5817,
E-mail: qiuming@yorku.ca

Roussos Dimitrakopoulos, Department of Mining, Metals and Materials
Engineering, McGill University, Montreal, Canada,
E-mail: roussos.di@mcgill.ca

Brigitte Doligez, Institut Français du Pétrole, 1 et 4 avenue de Bois Preau,
92506 Rueil-Malmaison, Cedex, France, Tel: +33 1 4752 7211,
Fax: +33 1 4752 7067, E-mail: Brigitte.Doligez@ifp.fr

Ian Jackson, British Geological Survey, Kingsley Dunham Centre,
Keyworth, Nottingham, U.K. NG12 5GG, Tel: +44 115 936 3214,
Fax: +44 115 936 3269, E-mail: ij@bgs.ac.uk,

Maria João Pereira, Instituto Superior Técnico - CMRP,
Av. Rovisco Pais, 1049-001 Lisboa, Portugal, Tel: +351 2184 17831,
Fax: +351 2184 17389, E-mail: maria.pereira@ist.utl.pt

Special IGC Councilor: **Felix Gradstein**,
Geological and Paleontological Museum, University of Oslo, Sars'gate 1,
N-0562 Oslo, Norway, Tel: +47 22 851 663,
Fax: +47 22 851 832, E-mail: felix.gradstein@nhm.uio.no

Committee Chairs

Awards Committee: **Heinz Burger**
Freie Universität Berlin, Geoinformatik, Malteserstr. 74-100,
12249 Berlin, Germany, E-mail: hburger@zedat.fu-berlin.de

Distinguished Lecture Committee: **Sean McKenna**
Technical Staff, Geohydrology Department, Sandia National Laboratories, P.O. Box 5800 MS0735, Albuquerque, NM 87185-0735, USA, Tel:
505-844-2450, Fax: 505-844-7354, Email: samcken@sandia.gov

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

Students Affairs Committee: **Helmut Schaeben**
Technische Universität Bergakademie Freiberg,
09596 Freiberg, Germany
E-mail: schaeben@geo.tu-freiberg.de

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@nrcan.gc.ca

Mathematical Geology **W. Edwin Sharp**
Department of Geological Sciences, University of South Carolina,
Columbia, SC 29208, USA, Tel: (803) 777 6929, Fax: (803) 777-6610,
E-mail: editor@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.ku.edu

IAMG Monograph Series **Jo Anne DeGraffenreid**
P.O. Box 353, Baldwin City, KS 66006-0353, USA,
Tel: +1 785 594 6624, E-mail: msdeg@mchsi.com

IAMG Newsletter **Harald S. Poelchau**
10773 Lanett Circle, Dallas, TX 75238, USA, Tel: 214-221-1080,
E-mail: h.poelchau@iamg.org

Webmaster: **Eric Grunsky**
Geological Survey of Canada, Natural Resources Canada,
601 Booth St., Ottawa, Ontario K1A 0E8, CANADA,
Tel: +1 613 992 7258, E-mail: egrunsky@iamg.org

PRESIDENT'S FORUM

Can the IAMG play a significant role in the 21st Century and why? The answer is a resounding YES; there are several reasons. We are international with a solid foothold in different countries, and this fits in with the increasing trend toward globalization. We also are in the growing field of applications of mathematics, statistics, information technology and computers in the geosciences.

An important goal of our Association always has been the promotion of scientific publications in our field. Our three international journals continue to flourish. *Mathematical Geology* and *Natural Resources Research* are now published by Springer, and *Computers & Geosciences* by Elsevier. A major change in the publishing field has been the development of on-line versions of scientific journals that are in the process of replacing traditional paper copy stored in libraries only.

Our first journal, Mathematical Geology (from 1969) contains papers describing theoretical advances in use of mathematics in the earth sciences. A large proportion of these are in the field of spatial statistics building on concepts and methods introduced in the 1950s and 1960s by Georges Matheron, originally a geologist but now increasingly being recognized as one of the great mathematical statisticians of the 20th century.

Natural Resources Research was initiated in 1992 when, because of budget restrictions, most libraries were reducing subscriptions rather than taking in new journals. Nevertheless, NRR has developed into an important medium with its own characteristic message of how mathematical geology can be applied for the estimation and prediction of resources contained within the Earth.

Computers & Geosciences has continued to flourish from when it was first published in 1975. The majority of its articles are by earth scientists in geophysics, geoinformatics and other fields not contained within mathematical geology *sensu stricto*. It serves the geoscience community at large as the principal outlet for description of new research-oriented computer software. Because of royalties it also provides the IAMG with much of its annual income.

Worldwide trends include the merging of scientific organizations into larger entities. For example, the European Geophysical Society and the European Union of Geosciences joined forces in 2002 to form the European Geosciences Union. Large organizations also are becoming more international. For example, the American Association of Petroleum Geologists with 31,000 members now regularly organizes large, well-attended meetings in Europe with the next AAPG International Conference and Exhibition to be held in Paris, September 2005. These large organizations have their own secretariats and user-friendly websites. They also accommodate interests of their members who can form subgroups working in specific fields of interest including quantitative geoscience and geoinformation.

The number of scientists in the classical subfields of geology has been decreasing, and scientists who remain are increasingly being subjected to demands to deliver products of immediate interest to stakeholders rather than being allowed continual freedom of developing their own research interests. Unfortunately, a subsidiary development is taking place: national organizations such as geological surveys do not encourage active participation of their employees in international organizations as they did in the past. Consequently, work in international scientific organizations has become more of an unpaid volunteering effort than before. We are grateful to our editorial boards, council and committee members who continue to serve faithfully although support at their home institutions may be dwindling.

The IAMG is a relatively small organization. Nevertheless, we have our own secretariat and website. In recent years many of our original members have retired and successive IAMG Councils have been considering ways of how to maintain and expand our membership. We hope that most members will continue to be active. Originally, IAMG membership involved subscription to one or more of our journals at a special rate. All income received from journal subscription was passed on by the IAMG to its publishers. Currently, members are required to pay US$10 per year with a four-year ($40) and a lifetime ($120) option. Subscription to our journals at the reduced rate is not obligatory anymore. Other ways to retain and attract members are to offer reduced registration fees for IAMG members at our annual meetings and to have IAMG booths at large conferences such as the December AGU meetings in San Francisco.

Special efforts are being made to attract new IAMG student members. Not only do student members pay only $5 per year, they have the same privileges as ordinary members including voting rights. Annually (since 2002), the IAMG distributes $5000 in grants to graduate students in mathematical geology. This program has become very popular with 18 applications and 4 awards in 2004. The award winners are listed on our website. Later, their reports on their research will be posted as well.

The Student Grants Committee is being replaced by a new Student Affairs Committee. This is because the IAMG is developing other initiatives to attract new student members including the formation and support of Student Chapters. The first IAMG Student Chapter at the Southern Illinois University in Carbondale now has its own website, which is linked to the IAMG website. Last December, our second student chapter was founded at the China University of Geosciences in Wuhan. Its members will help with the organization of our 2007 Annual Conference to be held at this university.

Although it would be desirable to double our membership from about 500 to 1000, the IAMG should remain a closely knit community based in different countries. I look forward to seeing many of you at our Toronto Annual Meeting in August, when the current IAMG Council will have been at the steering wheel for its first year.

Frits Agterberg

Association Business

2005 Vistelius Award: Sebastien Strebelle

2005 Felix Chayes Prize: Eric Grunsky

The Awards Committee (**H. Burger, Q. Cheng, S. Henley, A. Journel, H. Rollinson**) has completed the selection of award recipients for 2005 and has asked the Local Organizing Committee of the IAMG2005 conference in Toronto to prepare a proper award ceremony including presentation of the prizes, laudatios and invited talks of the award winners – for details see http://www.iamgconference.com.

Furthermore, the laudatios for the winners of the Vistelius Award (by A. Journel) and the Felix Chayes Prize (G. Bonham-Carter) will be published in *Mathematical Geology* and *Computers & Geosciences*, respectively.

Sebastien Strebelle

I want to take this opportunity to thank all the members of the Awards Committee and to give special thanks to **R. Olea, V. Pawlowsky, J. Hernandez-Gomez, K. Gajewski, A. Journel** and **G. Bonham-Carter** who supported the committee by submitting nominations and/or writing laudatios during this 2005 evaluation process.

The IAMG Council has appointed two new members to the Awards Committee: **Jef Caers** (Stanford) and **Antonella Buccianti** (Italy). Their terms will run for 4 years, i.e., from now through 2007. They will replace **A. Journel** and **H. Rollinson**, whose terms ended in 2004 — special thanks to them for the time and efforts they spent acting in this committee.

Eric Grunsky

The number of nominations is still unsatisfactory. We had only three candidates for both awards! All members of IAMG are urged to nominate candidates for the IAMG Awards. Coming up now is a call for nomination for the 2006 Krumbein Medal, which is the highest award of our association, and the Griffiths Award for excellent teaching. Please see the front page of this issue and the IAMG website http://iamg.org for details.

Heinz Burger
Chair, Awards Committee

Georges Matheron Lecture Proposed

We would like to introduce a Georges Matheron lecture, to be given at the annual IAMG conference. The purpose of the GM lecture is to honor the remarkable scientific contributions made by Professor Matheron, whose fundamental theoretical and methodological work on modeling, analyzing and interpreting spatial data have stood the test of decades of practical application in mineral and petroleum exploration, and elsewhere in science, and whose work in random sets has been crucial to the development of image analysis and stereology.

The Georges Matheron lecture would also honor the individual selected to give it. We propose that the first GM lecture be given by Professor Jean Serra, a long-standing colleague of Professor Matheron who has made his own outstanding contributions to image analysis and stereology. The first GM would be given at the IAMG's annual meeting to be held in Liège, Belgium, during 4-7 September, 2006.

This proposal has already been discussed within the IAMG Executive, and all four of us agree that it is a good idea. Eric Pirard, Conference Chair of the IAMG-2006 in Liège is in favor of the plan as well, and has discussed it with Serge Beucher, Dominique Jeulin, Fernand Meyer and Christian Lantuejoul who where close co-workers of Georges Matheron and Jean Serra.

Dominique Jeulin has published obituaries of Matheron who died in the year 2000 (e.g. D. Jeulin, 2000, Georges Matheron (1930-2000): Proc. Royal Microscopical Soc., vol. 35, pp. 287-288). Fernand Meyer has taken over the direction of the Centre for Mathematical Morphology in Fontainebleau, after the retirement of Jean Serra from this position.

We all agree that the Matheron family should approve of this proposal before it could be acted upon. Quoting from an e-mail from Fernand Meyer to Eric Pirard: Jean Serra is "exécutaire testamentaire de Georges Matheron pour tout ce qui est de son leg scientifique. Il est donc bien placé pour obtenir l'accord de la famille de Matheron pour la création de cette lecture."

Vice President Nick Fisher is working together with Jean Serra on Matheron's scientific legacy. Last week Nick has phoned Serra who has readily agreed to approach the Matheron family on our behalf, and also to deliver the first Matheron lecture in Liège.

I would like to invite you to comment on this development. I am aware that not everybody agrees that Matheron has made a truly outstanding contribution. My own introduction to his work took place in 1963 when the head of the library committee of the Geological Survey approached me because there had been a complaint about a recent acquisition (Matheron's first book: Traité de Géostatistique Appliquée, 1962). He asked me if this work should be removed because "we don't want bad books in our library". I disagreed with the removal idea and became enthusiastic about the originality of Matheron's totally new ideas.

In 1968, Geof Watson became the first IAMG Vice President. In several review articles Geof not only introduced "kriging" to the English speaking world, but he also explained mathematical morphology in simple terms and encouraged Matheron to write the 1975 Wiley book: "Random Sets and Integral Geometry".

Frits Agterberg

Distinguished Lecturer Committee

The IAMG Council has to approve the new composition of all four IAMG Committees. The Publications and Awards Committees are already functioning with new members. The new Student Affairs Committee has a Chair, **Helmut Schaeben**, but, as yet, no members. (Students are, however, encouraged to apply for 2005 research grants by following instructions on http://www.iamg.org)

Alec Desbarats has ably led the first Distinguished Lecturer Committee during the past four years. He kindly agreed to stay on as Chair temporarily in order to help make arrangements for our third DL who is **Larry Drew** for 2005, and to invite nominations for the 2006 DL. Alec suggested **Sean McKenna**, one of the members of his committee, to succeed him, and the IAMG Council has appointed him as the new Chair.

Sean McKenna (U.S.A.) is Principal Member of the Technical Staff, Geohydrology Department, Sandia National Laboratories.

He has been working in Spatial Statistics at Sandia since May of 1994. His research centers on stochastic simulation of heterogeneous properties and the numerical modeling of physical processes in heterogeneous media. McKenna is also interested in optimization techniques applied to problems in the earth and environmental sciences.

Sean has a B.A. in Geology from Carleton College, Northfield, Minnesota (1986), and M.S. in Hydrology from the University of Nevada, Reno (1990), and a Ph.D. in Geological Engineering from the Colorado School of Mines (1994).

Ordinary Members of the Committee will be:

> **Maria Theresa Schafmeister** (Germany)
> **Jaime Gomez-Hernandez** (Spain)
> **Tim Coburn** (U.S.A.)
> **Sanjay Srinivasan** (U.S.A.)
> **Alec Desbarats** (Canada)
> **Qiuming Cheng** (China and Canada)

IAMG 2007 Conference - Wuhan and Beijing

"Mathematical Analysis of Resources, Environment and Hazards"

A proposal to hold IAMG2007 in China in September 2007 was presented by Zhao Pengda, Professor and President China University of Geosciences, Wuhan, and accepted by the IAMG Council.

The plan is to highlight mathematical analysis of resources, environment and hazards. Utilization of natural resources, costs of environmental impact and increasing risk of geo-hazards have been reemphasized by the geoscience community as its main challenges for the new century. China and other countries in the region have not only become a world market of mining products but also a natural resources producer which has caused environmental impact including contaminations of air, water and land, increased risk of geo-hazards such as mine collapses, mining-related transportation incidents, and closures of mines causing collapse of local economies and development. Understanding the underlying processes and providing optimum-planning strategy have become critical for sustainable development in most of the nations and regions involved. In mathematical modelling of geo-processes in conjunction with advanced technologies and diverse temporal-spatial data, the community of the IAMG can play an important role in supporting the human sustainability development. The conference proposed for 2007 will bring mathematical geologists and geoinformatics experts together to explore possibilities and opportunities to make significant contributions in the above fields. The contents of the conference therefore will include not only theoretical advancement of mathematical modelling and analysis methodologies but also techniques applicable to resources, environment and hazards assessments.

The conference, focussing on Mathematical Analysis of Resources, Environment and Hazards, will include symposia on new theories, methods and applications of mathematical modelling and quantitative analysis techniques for characterizing complex geo-processes relevant to formation and distribution of natural resources, environmental impact and geo-hazards. It will cover mathematical modelling of geo-processes as dynamic systems, statistical analysis of interactions of geo-systems, techniques for predicting and mapping resources, environment and hazards, and strategy for providing relevant geoinformation on resources, environment and hazards, technology and model inputs for decision making.

It is anticipated that an opening half-day plenary session will be followed by 3 or 4 parallel strands during the first days in Wuhan, and a closing one-day plenary session in Beijing. Oral as well as poster presentations are encouraged. Additional symposia will be included according to the wishes of the international scientific committee to ensure that the conference continues to appeal to a wide range of mathematical geologists. An invitation to convene workshops and short courses will be issued with the first announcement circular. Diverse social programmes will be arranged for conference participants and accompanying persons. Several field excursions will take place following the main conference.

Conference chair: **Zhao Pengda**, China University of Geosciences

Conference vice-chair: **Frits Agterberg**, Geological Survey of Canada

Conference Secretary-general: **Qiuming Cheng**, York University, Canada and China University of Geosciences

Picture credits: www.china.missouri.edu/programsite.htm

Member News

Roussos Dimitrakopoulos is joining the Department of Mining, Metals and Materials Engineering, McGill University, Montreal, Canada, to take on the recently awarded Canada Research Chair in "Sustainable Mineral Resource Development and Optimization under Uncertainty" and the BHP Billiton Chair in "Mine Planning Optimization". Roussos leaves his position as Professor and Director of the Bryan Research Centre, U of Queensland, Australia, after nearly a decade of fun, teaching and research in geostats, stochastic models and applications in ore body modeling and strategic mine planning under conditions of uncertainty and risk.
New contact: roussos.di@mcgill.ca.

K. Gerald van den Boogaart has moved to Greifswald University, Germany where is working with Maria-Theresia Schafmeister. He formerly was at Freiberg University of Mining and Technology, Germany, where he received his PhD under Helmut Schaeben. Gerald was the recipient of IAMG's Andrei Borisovich Vistelius Research Award in 2003.

IAMG 2005, Toronto, Aug 21-26

More than 300 abstracts have been received, and everything is shaping up for an excellent meeting in Toronto.

Monday, Tuesday and Thursday there will be plenary lectures (5 invited speakers and 2 IAMG award winners), 5 parallel technical sessions, and posters with short introductions by presenters. A field-trip day midweek will give attendees a conference break, and an opportunity either to visit the Niagara region (Falls, Paleozoic stratigraphy, wineries), or to see aspects of the local Quaternary geology north of Toronto, with a stop at the famous Group of Seven art gallery in Kleinberg. The dinner (Tuesday evening) will be held in the Great Hall of Hart House at University of Toronto. Workshops will be held on Friday.

See you at the Icebreaker, Sunday August 21. More information about the conference is available at the official website: **www.iamgconference.org**

Conference Chair: Qiuming Cheng
York University, Canada

Conference Vice-Chair: Graeme Bonham-Carter
Geological Survey of Canada

IAMG Sponsors Two International Meetings

The IAMG Council has decided to support the *8th International Conference on Fluvial Sedimentology (ICFS-2005)* to be held in Delft, The Netherlands, August 7-12, 2005, by becoming a Sub Sponsor (€1000), and the *2nd Compositional Data Analysis Workshop (CoDaWork-05)* to be held in Girona, Spain, October 19-21, 2005, as a sponsor by contributing the funding requested (€1500).

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Conference Reports

IAMG at AGU 2004

At the Fall Meeting of the American Geophysical Union, held December 13-17, 2004 in San Francisco, we again followed our quest to better represent IAMG at AGU. AGU is an association with several times the number of members of IAMG, many of whom are potentially interested in geomathematics or already using software from Computers & Geosciences but oftentimes not aware of the existence of our association, or the many "goodies" membership comes with. This year's meeting attracted over 11,000 participants. Quite a show and also a great potential for us. Increasing visibility is a first goal, interacting with scientists from other disciplines and welcoming new members may then follow -- it often does.

This year's activities included organization of a special session and an exhibition and a C&G editorial board meeting.

Past IAMG President Graeme Bonham-Carter convened an editorial board meeting of Computers & Geosciences where board members met our new Publishing Editor, Hetty Verhagen of Elsevier, Amsterdam. The journal has a great reputation and, in addition, continues to trend upward.

"Geomathematical Methods for Information Retrieval in Complex Geophysical Systems" was the topic of the special session in the AGU Nonlinear Geophysics Section convened by Prof. Dr. Ute C. Herzfeld, currently at the Cooperative Institute for Research in the Environmental Sciences, University of Colorado Boulder, and Prof. Dr. Qiuming Cheng, Director, Geomatics Research Lab, Department of Earth and Space Science and Engineering, Toronto. An oral session was held on Wednesday jointly on Geophysical Inverse Theory, followed by a poster session on Thursday. We enjoyed presenting and discussing new avenues in geomathematics and geophysical inverse theory with our colleagues from the inverse-theory community.

Qiuming Cheng, Graeme Bonham-Carter, Helmut Mayer, Ute Herzfeld, Cao Li at AGU

Here is the Session abstract:

Geomathematical Methods for Information Retrieval in Complex Geophysical Systems

The focus of this session is on geomathematical approaches to the study of complex geophysical systems. The observation of Earth from space and by long-term automated observation stations is increasing at a rapid pace, as is the capacity of computer hardware to manipulate large amounts of data. The challenge, however, is to extract the salient information from the wealth of data in a way that it increases our understanding of the Earth and its physical systems. A central objective of geomathematics is to formulate the geophysical problem abstractly, understand the data and learn how to utilize it, and develop mathematics such that the geophysical problem can be solved.

The goal of this session is to bring together scientists working on mathematical solutions to geophysical problems. Contributions on a wide range of forms (patterns and distributions; spatial methods) and processes (time-dependent methods) are invited: land and marine geology and geophysics, ice-ocean-atmosphere systems and interactions, hydrologic processes, glaciology, volcanology, environmental geosciences, planetary sciences. Remote-sensing data of several scales from different types of survey devices, including -- but not limited to -- satellite data often provide a unique source of information, superior or complementary to field observations. Field observations may require advanced mathematical treatments, such that "soft information" may be integrated in a quantitative analysis. New developments and novel applications of traditional as well as ''modern'' geomathematical methods (statistics, spectral analysis, geostatistics, geographic information systems, inverse theory, algebra, dynamical systems, optimization, numerical analysis, fractals, neural networks, chaos, catastrophe theory, artificial intelligence) are equally welcome contributions to this special session.

As in previous years, an exhibition booth was organized by Ute Herzfeld (with substantial help from IAMG members and personal friends, who helped schlepp exhibitions materials -- all three journals, books, posters, chocolates, flyers, chairs --- into the Moscone Center to circumnavigate service costs). This year, Graeme Bonham-Carter, Qiuming Cheng and Helmut Mayer gave some of their time as exhibitors -- many thanks! Of special attraction to new members is still the Silver CD with all the software from C&G Issues of the first 25 years. The booth was well-visited and some people joined on the spot, in particular, we gained some additional student members.

Ute Herzfeld
Boulder, Colorado

ISI in Sydney

The 55th Session of the International Statistical Institute (ISI) took place in Sydney, Australia, April 5-12, 2005. The IAMG, as a newly Affiliated Organization to ISI, held an Invited Paper Meeting (IPM) on April 6 with the title: "Statistical analysis of data with constrained sample space".

About 30 participants of the conference attended this session which presented the following contributions:

H. Burger, chair (Germany): *Introduction* **Vera Pawlowsky-Glahn & Gloria Mateu-Figueras** (Spain): *The statistical analysis on coordinates in constrained sample spaces* **Juan-Jose Egozcue** (Spain): *Applications of statistical analysis on coordinates to compositional and positive data* **Gerald van den Boogaart** (Germany): *Statistics on compact groups* **Thaung Lwin** (Australia): Remarks by Invited Discussant

G. v.d. Boogaart demonstrating a group of rotations

Written versions of the three invited papers are published on CD (ISBN 1-877040-28-2)

Proposal: Most sessions at the meeting were entitled according to the field of application (e.g. Statistics in medicine, Macroeconomic statistics) and a subtitle containing special statistical topics presented there. The Council should discuss if for next ISI conferences IAMG should announce its Invited Paper Meeting under a title which clearly identifies this session with IAMG, e.g. Statistics in the geosciences: Specific theme(s).

General Impressions

The ISI conference seems to show a shift of focus on questions asked and on topics presented. While all the technical issues which bothered the last century statisticians seem now to be mathematically solved and made computationally tractable by modern computer technology, the question how to navigate through the vast amount of possibilities raises new ethical, educational and methodological questions. Releasing private information, detecting terrorists or selecting a misleading statistical method became a single click on one's personal comput-

Juan Jose Egozcue, Vera Pawlowsky, Heinz Burger

er. The understanding of the easily available methods does not fit into one year courses, and even experts do not know all power and stability properties necessary to choose from an oversupply of methods. New practical problems arise, e.g., the aim to get the optimum out of the data results in tackling the question, how we can do hundreds of tests on the same data set (which is now technically possible), without running into false conclusions due to multiple testing. Many of the presentations were concerned with these general problems arising from application of new solutions, and the answers given showed that there is still a long way to go.

Heinz Burger & Gerald van den Boogaart

IAMG Journal Report

Publications Committee

The Board has confirmed **Michael Ed. Hohn** as Chair of the IAMG Publications Committee. After consulting the other members of his committee, Mike now has selected **Richard Howarth** (UK) and **Vera Pawlowsky** (Spain) as the two new non-editor members of the Publications Committee for the next four years. Vera and Richard have agreed to serve, and the IAMG Board has confirmed them. Both have an excellent personal publication record and have served the IAMG in the past in various capacities. They are replacing **Roussos Dimitrakopoulos** and **Jaime Gomez-Hernandez** who have served on the Publications Committee during the past four years. We join Mike in thanking them for their valuable contributions.

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IAMG Certificate of Appreciation to Kathryn MacKinnon

For exceptional service as Managing Editor of
Computers & Geosciences, 1995-2004

When I took over as Editor-in-Chief of Computers & Geosciences in mid-1995 from Dan Merriam, I was fortunate to find Kathryn MacKinnon to run the Computers & Geosciences office. The office was in Kathryn's house, just a 2-minute walk from my own in Nepean — a suburb of Ottawa. Kathryn rapidly became knowledgeable in all aspects of the editing procedure. With great efficiency and hard work she dealt with reviewers, authors and publishing personnel, making my job relatively easy and enjoyable. Most weekdays there would be a stack of manuscripts requiring action for me to look at and make decisions on. She always managed to read my terrible scrawls, and translate them into respectable letters, often saving me from embarrassing blunders.

Kathryn was at an earlier time a graduate student in Classics at Carleton University, so she was comfortable with research publications and understood what was needed. She gave up her studies to start a family, so a part time job with the journal suited her well. The pay was not great, but it allowed her to work from home. Now her three children are older, she is back studying again — this time Theology. She will be ordained as a church minister sometime in 2006. I was sad when she gave up the job in mid-2004, but it was a very good run, lasting nine years.

Kathryn — thank you for all your hard work on behalf of Computers & Geosciences. The success of the journal has been helped by your dedication and attention to detail. You met every problem with intelligence and good humour. I wish you every success in your new career.

Kathryn will receive the certificate during the IAMG Toronto Meeting Banquet on Tuesday, August 23rd.

Graeme Bonham-Carter

Why is "Mathematical Geology" late?

In case you have been wondering where your latest copy of MG is hiding, here is a letter in response to Editor Ed Sharp's inquiry:

Dear Prof. Sharp,

My name is Andrea and I have recently taken control over Mathematical Geology. I'm not sure if you have heard, but a very large merger between Kluwer Academic and Springer-Verlag just took place at the end of last year. There has been much backlog and many publications are running on delayed schedules which everyone in desperately trying to bring back up to speed. I have several journals running late and this happens to be one that is in need of a big catch up, for which I offer my sincerest apologies.

Let me assure you that all lineups have been received through 37#6 and I will properly advance production as soon as possible. I still need to get in the corrections for 37#2 before publication. I realize what a big delay this is and will be working hard to accelerate publication. Please contact me with any further queries.

With much appreciation,

Andrea Weishoff
Springer
Production Editor

JOURNAL CONTENTS

Computers & Geosciences

(Articles with * have code available on www.iamg.org/CGEditor/cg2005.htm)

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A GIS tool for hydrogeological water balance evaluation on a regional scale in semi-arid environments* — Portoghese, I., Uricchio, V., Vurro, M.

Measure of similarity between geological sections accounting for subjective criteria — Kaltwasser, P., Boschetti, F., Hornby, P.

An effective method for 3D geological modeling with multi-source data integration — Wu, Q., Xu, H., Zou, X.

Breaklines in Coons surfaces over triangles for the use in terrain modelling — Hugentobler, M., Schneider, B.

PWL 1.0 personal Wavelab : an object-oriented workbench for seismogram analysis on Windows systems* — Bono, A.

GIS-based NEXRAD Stage III precipitation database: automated approaches for data processing and visualization* — Xie, H., Zhou, X., Vivoni, E.R., Hendrickx, J.M.H., Small, E.E.

Constructing multi-resolution triangulated irregular network model for visualization — Yang, B.

Multidimensional binary indexing for neighbourhood calculations in spatial partition trees — Poveda, J., Gould, M.

One-dimensional inversion of geo-electrical resistivity sounding data using artificial neural networks-a case study — Singh, U.K.

Sunshading global data sets* — Cooper, G.R.

Book review: Statistics with Applications in Biology and Geology by Preben Blaesild and Jorgen Granfeldt — Jones, T.A.

C&G   Volume 31, Number 2 (2005)

Special Issue: Geospatial Research in Europe: AGILE 2003

Editor: Michael Gould

There is no computer program code associated with this special issue.

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INVSFS: A MS-Fortran 5.0 program for stress inversion of heterogeneous fault/slip data using the fuzzy C-lines analysis technique * — Li, Z., Shan, Y., and Li, S.

A semi-automatic segmentation procedure for feature extraction in remotely sensed imagery — Zhang, Q., Pavlic, G., Chen, W., Fraser, R., Leblanc, S., and Cihlar, J.

Finite-element modelling of contemporary and palaeo-intraplate stress using ABAQUS™* — Dyksterhuis, S. Albert, R.A., and Müller, R.D.

An interactive program for GPS-based dynamic orbit determination of small satellites* — Karslioglu, M.O.

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A relational database for the monitoring and analysis of watershed hydrologic functions: II. Data manipulation and retrieval programs* — Carleton, C.J., Dahlgren, R.A., Tate, K.W.

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MODMAG, a MATLAB program to model marine magnetic anomalies * — Mendel, V., Munschy, M., Sauter, D.

An open source, web based, simple solution for seismic data dissemination and collaborative research* — Diviacco, P.

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Empirical maximum likelihood kriging: The general case — E. Pardo-Iguzquiza & P.A. Dowd

An application of multivariate simulation in the cement industry — D. Marcotte, K. Nararghi, C. Bellehumeur & E. Gloaguen

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Spatial Statistics for Remote Sensing edited by A. Stein, F. van der Meer & B. Gorte — Reviewed by Jim Carr

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A geostatistical simulation approach to a pollution case in north-eastern Italy — P. Fabbri & S. Trevisani

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Special Issue: Advances in Compositional Data

Guest Editor: Vera Pawlowsky-Glahn

Forward: Advances in compositional data — V. Pawlowsky-Glahn

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Latent compositional factors in the Llobregat river basin (Spain) hydrogeochemistry — R. Tolosana-Delgado, N. Otero, V. Pawlowsky-Glahn & A. Soler

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Subcompositional patterns in Cenozoic volcanic rocks of Hungary — J.A. Martin-Fernandez, C. Barcelo-Vidal, V. Pawlowsky-Glahn, L.O. Kovacs & G.P. Kovacs

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Dealing with compositional data: the freeware CoDaPack — S. Thio-Henestrosa & J.A. Martin-Fernandez

Groups of parts and their balances in compositional data analysis — by J.J. Egozcue & V. Pawlowsky-Glahn

Compositional data analysis: Where are we and where should we be heading? — J. Aitchison & J.J. Egozcue

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30 years ago......

<u>Computers & Geoscience</u> (sic!)
The new IAMG journal devoted to publication of computer programs, algorithms, and articles on computation in the earth sciences, has gone to press. Volume 1 Number 1 is now at Pergamon Press, and Number 2 has been edited. The remaining two issues of the first volume are being assembled. Information about editorial policy can be obtained from the IAMG Editor.…

<u>IAMG meeting cancelled</u>
The IAMG session on "Quantitative Interpretation of Cyclic Sediments" to be held at the 8th Carboniferous Congress in Moscow has been cancelled. The cancellation results from difficulties of coordination and lack of response to the call for papers.

Student Affairs

New IAMG Student Affairs Committee

The IAMG Council has decided that it would greatly benefit the Association to emphasize the importance of students in the organization. While Student Research Grants have been very successful under the Chairmanship of **Tim Coburn** (see below) and student chapters are starting to come into being, there is probably a lot more that can be done to interest young people and bring them into IAMG. Therefore, it was agreed to form a new IAMG Student Affairs Committee in charge of the annual selection of student research grant winners, other student support, and for co-ordination of relations between the IAMG and its student chapters. The new committee is chaired by **Helmut Schaeben** whose next step is to select committee members and to have them confirmed by the Council.

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2004 Student Grants awarded

The Student Grants Committee under Chairman **Tim Coburn** has selected four winners from a field of 18 applying candidates for the 2004 Student Grants Awards. The Student Grant Program is intended to advance the development and application of quantitative methods to geology by supporting graduate students enrolled in a formal university department related to mathematical geology. A grant is a cash amount up to US$2,000 plus a one-year subscription to one of the IAMG journals. This program is possible in part due to the generosity of the Mathematical Geologists of the United States (MGUS).

The winning students are:

Raimon Tolosana-Delgado, University of Girona
Advisor: Vera Pawlowsky-Glahn
Project Title: Coordinate kriging: Estimation of probability density functions

Abani Samal, Southern Illinois University
Advisors: Raja Sengupta and Richard Esling
Project Title: Multivariate geostatistical modeling of elemental remobilization in the oxidized zone of mineral deposits

Alex Simms, Rice University
Advisor: John Anderson
Project Title: Modeling glacio-hydro-isostacy over the last 18ka: Quantitative constraints on the relative sea-level history of the northwestern Gulf of Mexico

Nate Gilbertson, Colorado School of Mines
Advisor: Neil Hurley
Project Title: 3-D geologic modeling and fracture interpretation of the Tensleep Sandstone, Alcova Anticline, Wyoming

Congratulations to the winners!

It is not too early to apply for the **2005 Student Grants** using rules and procedures detailed at
www.iamg.org/StudentAwards/studentgrants.html.
However, it is expected that procedures for application and evaluation will become easier later this year once web-based forms will have been developed.
Deadline for applications will be **15 August 2005.**

IAMG Student Chapter at China University of Geosciences (CUG)

The IAMG Student Chapter at China University of Geosciences (IAMG-SCC) was set up on December 23, 2004, making it the second student chapter of IAMG. The president elected is Mr. Zhijun Chen, a Ph.D Candidate in CUG. The local advisory members include Prof. Zhao Pengda, academician and president of CUG, Prof. Qiuming Cheng (York Univ., Canada) and Prof. Guangdao Hu (CUG, China).

The main objective of the IAMG-SCC is to foster the student members exchange ideas and interests in mathematical geology, geoinformatics, and quantitative modeling of geological processes; to disseminate the latest progress in geomath research and the related geoinformation; and to organize and promote academic communication and activities between the local student members with the IAMG scholars nationally and internationally.

IAMG-SCC consists currently of graduate and undergraduate students who are interested in mathematical geology, GIS/RS/GPS, and statistics etc. Total number of members enrolled is 37. The most student members are the graduate students of the State Key Laboratory of Geo-Processes and Mineral Resources, Faculty of Mineral Resources of China University of Geosciences (Wuhan). IAMG-SCC has planned a number of regular seminar activities held on CUG campus, local mathematical geology workshops for students from China, and report to be presented as IAMG2005 annual conference.

Back two rows are student members.
First row from the left: Prof. Zhao Laishi (State Key Lab), Prof. Li Zhenhua (Faculty of Mineral resources of CUG), Prof. Guangdao Hu (Head of Mathematical Geology Insititue of CUG), Prof. Shuzheng Yao (VP Student Affairs and Dean of Graduate Studies of CUG), Prof. Zhao Pengda (President of CUG), Prof. Qiuming Cheng (York University of Canada, IAMG Councilor), Prof. Tingzhe Lian (Dean of Faculty of Resources), Prof. Jianguo Chen (vice director of Mathematical Geology Institute), Prof. Youyu Chen, Prof. Xinbiao Lu (Vice Director of State Key Lab).
Photos taken by Mr. Zhijing Wang (visiting Ph.D. student from York University, Canada) who is going to spend one year at CUG.

IAMG-Student Chapter at Southern Illinois U-Carbondale

Recently we made our website. You may want to visit the site: http://www.siuc.edu/~er&p/IAMG/

The website is maintained by an IAMG student member from our campus, **Girmay Misgna**, who also manages our ER&P research program's GIS Lab (www.siuc.edu/~er&p/). We expect to update the website at least twice every year. We are looking at the possibility of making a (small, 5-6 pages) newsletter published every year.

In the 1st floor of the Geology Department, we now have a display case, where we have a student chapter poster (**see next page ->**) and a news section, updated regularly by members.

The student chapter activities are supported by the Geology Department and the ER&P research program. Thanks to Dr Esling (Chair, Geology department) for his support and encouragement. I take this opportunity to thank Dr Graeme Bonham-Carter, Dr John C Davis and Dr Frits Agterberg for their encouragement and support to make the student chapter a reality.

Abani R Samal
Campus Representative

The International Association for Mathematical Geology (IAMG) founded in 1968 at the 23rd International Geological Congress in Prague to advance the development and application of quantitative methods to geology, particularly mathematics, statistics, and computer science.
IAMG has members in approximately 40 countries.
The IAMG is affiliated with the International Union of Geological Sciences (IUGS), the International Statistical Institute (ISI), and the American Association of Petroleum Geologists (AAPG).

FIRST STUDENT CHAPTER
OF
International Association for Mathematical Geology
http://iamg.org,
http://www.siuc.edu/~er&p/IAMG

BE A MEMBER

• All having interest in computer application, Mathematical and Statistical application in earth science

ANNUAL FEES:
Students: USD 05.00
Others: USD 10.00

IAMG DISTINGUISHED LECTURERS IN SIU-C

Dr John C Davis (2003)

Dr Frit Agterberg (2004)

OUR ACTIVITIES

Meetings (monthly)

IAMG-Distinguished Lectures (yearly)

Seminars and discussions in SIU-C

Presentation in National-International Meetings

IAMG Journals

Other Publications: *Studies in Mathematical*

| Modern Spatiotemporal Geostatistics | Computers in Geology- 25 Years of Progress | Geostatistical Glossary and Multilingual Dictionary | Geostatistical Analysis of Compositional Data |

The IAMG Meetings:

IAMG 2005 Toronto, Canada, Sept. 2005:
(http://www.iamgconference.com)

Previous IAMG Meetings
IAMG 2004 (Italy), IAMG 2003 (UK) ,IAMG 2002 (Germany) IAMG 2001 (Mexico) IAMG 2000 (Brazil) IAMG'99 Norway, IAMG'98 (Italy) IAMG'97 (Spain),IAMG'96 China IAMG'95 (Canada), IAMG'93 (Czech Republic)

IAMG sponsors sessions in international meetings of AGU, GSA, IGC etc.

Other IAMG Activities
Committee for Quantitative Stratigraphy

Geologic Map Databases and standards

STUDENT RESEARCH GRANTS IN MATHEMATICAL GEOLOGY
http://www.iamg.org/StudentAwards/student_research_grants_2005.html

IAMG Head Quarters:
4 Cataraqui St., Suite 310, Kingston ON K7K 1Z7,Canada
E-mail: office@iamg.org
FAX: +1 613 531 0626
Tel: +1 613 544 6878

IAMG SIU-C Student Chapter:
Department of Geology Mailcode 4324 Southern Illinois University Carbondale, Illinois 62901
Phone: 618-453-3351
Fax: 618-453-7393

News from Freiberg

Joint French-German PhD for Marcus Apel

Marcus Apel (http://www.geo.tu-freiberg.de/~apelm/) received a joint French-German PhD (cotutelle de thèse) from the "Institut National Polytechnique de Lorraine (INPL), École Nationale Supérieure de Géologie (ENSG), Nancy, France, and from the Department of Geosciences, Freiberg University of Mining and Technology, Germany. His supervisors were Jean-Laurent Mallet, Nancy, and Helmut Schaeben, Freiberg.

The objective of Marcus Apel's thesis is to overcome the shortcomings of 2-D maps and geographical information systems, and to provide a general framework for a 3-D geoscientific information system, to develop and apply appropriate data models and geologically sensible functions, and thus to contribute to the public discussion about the development of an infrastructure for geodata, geomodels, and geoservices.

3-D geomodelling applies an explicit mathematical approach to provide methods and tools to create a shared model of a portion of the Earth representing its geometry, topology, and properties. Usually, geomodelling includes visualization of the model in 3-D applying advanced computer graphics as well as in 2-D along arbitrary sections through the model thus providing digital 2-D maps. However, these geomodels lack appropriate tools for their analysis and interpretation. In this sense, a 3-D geoscience information system complements a 3-D geomodel and largely extends the function of maps even when enhanced by GIS. For instance, it is possible to check the geological consistency of the model by queries developed and implemented by Marcus Apel; a task, which is far beyond the application of a conventional map as well as a geographical information system even if only the geometry is considered.

Marcus Apel has pursued these ideas to combine advanced geomodeling and sensible "geoquerying". He was funded initially by the "Robert-Bosch-Stiftung" through the "Deutsch-Französische Hochschule – Université Franco Allemand (DFH–UFA)", later by "Deutsche Forschungsgemeinschaft (DFG)", and in between by "Association Scientific pour la Géologie et ses Applications (ASGA)". The results of his efforts address such topics as

(i)   basic geoobjects like the novel "observation point" and their relationships,

(ii)   datamodels for geodata applying XML and GML, standardization towards an infrastructure to facilitate exchange,

(iii) 3-D queries,

(iv) implementation comprising a native XML data base management system, an XML application server, and gOcad as front end geomodeling system

(v)   example applications throughout his thesis.

Moreover, Marcus Apel has implemented one of the first 3-D geoscience information systems and put his careful considerations into working practice.

Diploma for …

Arne Schendel (ars@uni.de) who completed the diploma thesis "Concept of a GIS for the Appalachian-Variscan-Uralide orogen" (in German: Konzeption eines Geoinformationssystems für das Appalachen-Variszien-Uraliden Orogen), supervised by Uwe Kroner and Helmut Schaeben

The theses deals with the reconstruction of relative plate movements during the evolution of Pangea at 250 Ma. ArcGis 8.3 has been used for the organization of different datasets and the rotation of the geoobjects around Euler poles. The new coordinates of the rotated geoobjects (represented by polygons) are preserved. The project is seen as a contribution to the development of a spatio-temporal geoscience information system. Finally, a geometrically exact model is proposed for the evolution of Pangea.

BSc for ...

Gregor Kulig (Gregor_Kulig@gmx.de) who completed a BSc thesis "Software for age determination by luminescence" (in German: Erstellung einer Auswertesoftware zur Altersbestimmung mittels Lumineszenzverfahren unter spezieller Berücksichtigung des Einflusses radioaktiver Ungleichgewichte in der 238U-Zerfallsreihe), supervised by Helmut Schaeben and Detlef Degering

In cooperation with the Saxonian Academy of Science, especially with Dr. D. Degering, software (ADELE, Age Determination based on Luminescence and Electron spin resonance) for age calculation has been developed. The program has following major functions:

• calculation of dosis rates originating from naturally occurring radionuclides

• calculation of dosis rates from cosmic radiation

• including latest scientific results for dosis attenuation in grains (for certain diameter and laboratory treatment)

• treatment of disequilibria in the ^{238}U-series

• dividing the time in periods of different geological conditions (moisture of soil, thickness of covering layers, chemical differentiation of radionuclides)

• treatment of measurement uncertainties

• loading old AGE files

• export of results

Helmut Schaeben, Freiberg

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Upcoming Meetings

SIAM Conference on Mathematical and Computational Issues in the Geosciences, co-sponsored by INRIA, Palais des Papes, Avignon, France, **7-10 June 2005**. Co-chairs: Lynn Bennethum, University of Colorado, Denver, Alain Bourgeat, University of Lyon, France, http://www.siam.org/meetings/gs05/index.htm

Madrid 2005, 67th EAGE Conference & Exhibition, Madrid, Spain, **13–17 June 2005**. European Association of Geoscientists & Engineers, E-mail: eage@eage.org; Web Site: http://www.eage.nl/conferences/index2.phtml?confid=17

American Association of Petroleum Geologists (AAPG) and Society for Sedimentary Geology (SEPM), Calgary, Alberta, Canada, **19–22 June 2005**. AAPG Conventions Dept., P.O. Box 979, Tulsa, OK 74119, USA; Phone: +1-918 560 2679; Fax: 1-918 560 2684; E-mail: convene@aapg.org Website: www.aapg.org

2005 JOINT STATISTICAL MEETINGS, Minneapolis, Minnesota, **7-11 August 2005**. ASA, Phone: +1 (703) 684-1221, www.amstat.org/meetings/jsm/2005/

EARTH SYSTEM PROCESSES 2, Calgary, Alberta, Canada, **8-11 Aug 2005**. Geological Society of America, Geological Association of Canada. Diane Matt, P.O. Box 9140, Boulder, CO 80301-9140, Phone: 1- (303) 357-1014 FAX: 1- (303) 357-1074 EMail: dmatt@geosociety.org Web: http://www.geosociety.org/meetings/esp2/

IAMG 2005, York University, Toronto, Canada, **21-26 August 2005**. Ms. Pamela Lyons, Events & Management Plus Inc., 4 Cataraqui Street, Suite 310, Kingston, ON K7K 1Z7, Tel: 613-544-6878, Fax: 613-531-0626, E-mail: info@iamgconference.com, www.iamgconference.org

DYNAMIC PLANET 2005 "Monitoring and Understanding a Dynamic Planet with Geodetic and Oceanographic Tools", Cairns, Australia, **22-26 Aug. 2005**. Joint Assembly of the IAG, IAPSO and IABO. Dynamic Planet 2005 Secretariat, GPO Box 2609, Sydney NSW 2001, Australia, Phone: + 61 2 9241 1478 FAX: + 61 2 9251 3552, EMail: nicoleh@eventplanners.com.au, Web: http://www.dynamicplanet2005.com

8th International Conference on FLUVIAL SEDIMENTOLOGY, Delft, **07-12 Aug. 2005**. Prof. Dr. S.B. Kroonenberg, Technical University Delft, Mijnbouwstraat 120, 2628 RX Delft, the Netherlands, Phone: +31(0)15 278 1328, FAX: +31(0)15 278 1189, EMail: Organizing.committee@8thfluvconf.tudelft.nl, Web: http://www.8thfluvconf.tudelft.nl/ (sponsored by IAMG)

AAPG International Conference and Exhibition, CNIT La Defense, Paris, France, **11-14 Sept. 2005**. American Association of Petroleum Geologists, AAPG Convention Department, PO Box 979; Tulsa, OK 74101, USA, Phone: 1-918-560-2617, FAX: 1-918-560-2684, EMail: convene2@aapg.org, Web: http://www.aapg.org/paris/

PEDOMETRICS 2005: Frontiers in Pedometrics, The Naples Beach Hotel & Golf Club, Naples, Florida, USA, **12-14 Sep. 2005**. University of Florida / IFAS. Sharon Borneman, PO Box 110750, Gainesville, Florida 32611-0750, Phone: 352-392-5930 FAX: 352-392-9734, EMail: spborneman@ifas.ufl.edu, Web: http://conference.ifas.ufl.edu/pedometrics

Bright or Dim? Detection & Quantification of Fluids & Reservoir Properties from Exploration through to Exploitation, London, **14-16 Sept.2005**. Lydia Dumont, The Geological Society, Burlington House, Piccadilly, London, W1J 0BG, Phone: +44 (0)20 7434 9944, FAX: +44 (0)20 7494 0579, EMail: lydia.dumont@geolsoc.org.uk, Web: www.geolsoc.org.uk/template.cfm?name=Bright_or_Dim

Association of European Geological Societies-MAEGS 14, "Natural hazards related to the recent geological processes and regional evolution" (14th International Meeting), Turin, Italy, **19–23 September 2005**. Prof. Francesco Carraro or Dr. Marco Giardino, Dept. of Earth Sciences, University of Turin, Via Valperga Caluso, 37, 10125 TORINO; Phone +39 011 6705164; Fax +39 011 6705168; E-mail: francesco.carraro@unito.it or marco.giardino@unito.it; Web Site: www.maegs14.com

SPE Annual Technical Conference and Exhibition, Dallas, TX, USA, **9-12 Oct 2005**. Society of Petroleum Engineers. Debbie Weaver, P.O. Box 833836, Richardson, TX 75083-3836, FAX: 972-952-9435 EMail: dweaver@spe.org Web: http://www.spe.org)

42nd Annual AIPG Meeting, "Geologic Information: Racing into the Digital Age", Radisson Plaza Hotel, Lexington, Kentucky, USA, **9-14 Oct. 2005**. American Institute of Professional Geologists. Tom Spalding, Phone: (502) 458-1209, EMail: AIPG2005@yahoo.com

GEOETHICS at The Mining Příbram Symposium, **10 - 13 October 2005**. P.O. Box 41, 261 92 Příbram, Czech Republic. Phone: (++420) 274811801 or (+420) 281962158 (recorders), Fax: (++420) 318623169, E-mail: marcinikova@diamo.cz (Symposium secretariat) and lidmila.nemcova@quick.cz (convenors)

2nd COmpositional Data Analysis Workshop, Girona, Spain, **19-21 Oct. 2005**. CoDaWork'05 - workshop Secretary, Fundació Universitat de Girona: Innovació i Formació, Plaça Jordi de Sant Jordi, 1, 17001 Girona, Spain, Tel: +34-972-21-02-99, Fax: +34-972-22-34-54, E-mail: info.fundacio@udg.es, http://ima.udg.es/Activitats/CoDaWork05/index.html

GSA Annual Meeting, Salt Lake City, Utah, USA, **16-19 Oct 2005**. Geological Society of America. GSA Meetings,, PO Box 9140, Boulder, CO 80301-9140, Phone: (303) 357-1000, FAX: (303) 357-1072 EMail: meetings@geosociety.org Web: http://www.geosociety.org/meetings/2005/

SEG International Exposition and 75th Annual Meeting, George R. Brown Convention Center, Houston, Texas, USA, **6-11 Nov 2005**. Society of Exploration Geophysicists. Steve Emery, 8801 S. Yale Ave, Tulsa, OK 74137, Phone: 918-497-5539 FAX: 918-497-5552 EMail: semery@seg.org Web: http://www.seg.org

American Geophysical Union (Fall Meeting), San Francisco, California, USA, **5–9 December 2005**. E. Terry, AGU Meetings Department, 2000 Florida Avenue, NW, Washington, DC 20009 USA; Phone: +1 202 777 7335; Fax: +1 202 328 0566; E-mail: eterry@agu.org; or meetinginfo@.agu.org; Web Site: http://www.agu.org/meetings

European Geosciences Union (EGU), (General Assembly), Vienna, Austria, **2–7 April 2006**. EGU Office, Max-Planck-Str. 13, 37191 Katlenburg-Lindau, GERMANY; Phone: +49-5556-1440; Fax: +49-5556-4709; E-mail: egu@copernicus.org; Web Site: www.copernicus.org/EGU/egu_info/prevga.html

American Association of Petroleum Geologists (AAPG) and Society for Sedimentary Geology (SEPM),"Perfecting the Search," (Joint Annual Meeting), Houston, Texas, USA, **9–12 April 2006**. AAPG Conventions Department, P O Box 979, 1444 S. Boulder Ave., Tulsa, OK 74101-0979, USA. Phone: +1 918 560 2679; Fax: +1 918 560 2684; E-mail: convene@aapg.org

European Association of Geoscientists and Engineers (EAGE) (68th International Conference & Exhibition), Vienna, Austria, **12–15 June 2006**. (Contact: ; Web Site: http://www.eage.org/conferences/index2.phtml?confid=40&ActiveMenu=8&Menu_Id=59&Opendivs=s1)

Regional Geoscientific CARTOGRAPHY AND INFORMATION SYSTEMS–Earth and Water (5th European Congress), Barcelona, Spain, **13–15 June 2006**. Institut Cartogràfic de Catalunya, Servei Geològic de Catalunya, Parc de Montjuïc, 08038 Barcelona, Spain; Phone: +34 935671500; Fax: +34 935671568; E-mail: econgeo2006@icc.es; Web Site: www.icc.es/econgeo2006/home.html

2006 JOINT STATISTICAL MEETINGS, Seattle, Washington, **6 -10 August 2006**. Elaine Powell, Phone: 703-684-1221 or 800-308-8943, Fax: 703-684-8069, EMail: jsm@amstat.org, www.amstat.org/meetings/index.cfm?fuseaction=main

IAMG 2006 Liège, Belgium, **3 - 8 Sept. 2006**. Eric Pirard, Université de Liège, Chemin des chevreuils – B52 / 3, Sart Tilman, B-4000 Liège, BELGIUM, Tel: 32-4-3669528, Fax: 32-4-3669520, E-mail: eric.pirard@ulg.ac.be, http://www.ulg.ac.be/geomac

SPE Annual Technical Conference and Exhibition, San Antonio, TX, USA, **24-27 Sept. 2006**. Society of Petroleum Engineers. Debbie Weaver, P.O. Box 833836, Richardson, TX 75083-3836, FAX: 972-952-9435, EMail: dweaver@spe.org, Web: http://www.spe.org

geoENV VI, the 6th annual European Conference on Geostatistics for Environmental Applications, Island of Rhodes, Greece, **25-27 October 2006**. web site: http://geoenvia.org/

2007 JOINT STATISTICAL MEETINGS, Salt Lake City, Utah, **29 July 29 - 2 August 2007**. http://www.amstat.org/meetings/index.cfm?fuseaction=main

IAMG 2007 Wuhan & Beijing, China, **23-30 September 2007**. Zhao Pengda, China University of Geosciences, Wuhan, & Qiuming Cheng, York University, Toronto, Canada, E-mail: qiuming@yorku.ca. qiuming@cug.edu.cn

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Claude Signer
Geology and Rock Physics Research Director
Schlumberger-Doll Research
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