Contents

President’s Forum .................................................................................................................. 3
Association Business ............................................................................................................. 4
John Harbaugh newest IAMG Honorary Member ................................................... 4
New IAMG Website ............................................................................................................. 4
2013 Distinguished Lecturer Report ........................................................................... 4
Letter to the Editor: ............................................................................................................. 4
Student Affairs .................................................................................................................. 5
Student Chapter News ....................................................................................................... 5
IAMG 2013 Student Poster Award .............................................................................. 5
Student Research Grant Awards ..................................................................................... 5
Member News ................................................................................................................... 6
Dan Merriam is now “50” ............................................................................................... 5
Reinhard Pflug 1932 - 2012 .......................................................................................... 6
China - Poland Cooperation Project ............................................................................. 6
IAMG2013 in Madrid Photo Album ............................................................................. 7-10
IAMG Journal Report ....................................................................................................... 11
Journal Contents ............................................................................................................... 12
Upcoming Meetings .......................................................................................................... 15

Guest Editorial

The June 2013 Newsletter editorial described the new contract agreement between IAMG and Elsevier in a less than positive light, suggesting that the negotiations had been difficult and adversarial, and that IAMG ‘holds its nose’ in dealing with our publishers. I would like to emphasize the benefits of our association with Elsevier and Springer.

In fact, the C&G negotiations were entirely friendly and cooperative on both sides, and many of our members to whom I have spoken about this recognize that our arrangements with our publishers (both Elsevier and Springer) are greatly beneficial to IAMG and its members. The new Computers & Geosciences royalty arrangement moves us from a percentage of sales to a fixed annual sum (made quarterly and subject to inflation increases) that is similar in amount to recent royalty payments under the old contract. $10,000 of this annual payment is to be used to support the new Computers & Geosciences Research Scholarships – an arrangement proposed by Elsevier, but which has catalyzed an overdue enhancement of our student grant system, a change (including new awards associated with our Springer journals MG and NRR) fully supported and approved by Council. The outcome of the new agreement is a guaranteed annual royalty income with no uncertainties, and a new system of generous student awards that will strengthen IAMG and support its mission.

We should remember that over the years IAMG has greatly benefited from journal royalties of which the lion’s share have come from C&G. Not only has this swelled our financial reserves, but it has also subsidized our many programs: annual conferences, Distinguished Lecturer Series, support of student chapters and student travel, as well as student grants and other activities. Without publication royalties, these programs simply would not have been possible, at least in their present form, given our relatively small membership and low membership fees.

Our publications have grown in reach and stature to a level that would have been difficult or impossible without the benefits gained from the many services provided by the publishers. For example, C&G now appears 12 times per year, with a total of about 2,000 pages. Its ISI impact factor has risen close to 2, and the number of submissions has increased markedly over the past three years: thus the popularity and quality have both increased substantially. MG and NRR have also grown in quality and reach. This is due not only to the efforts of our editors, but also to the first class production, distribution, search and archiving services provided by Elsevier (and similarly by Springer).

We should remember that over the years IAMG has greatly benefitted from journal royalties of which the lion’s share have come from C&G. Not only has this swelled our financial reserves, but it has also subsidized our many programs: annual conferences, Distinguished Lecturer Series, support of student chapters and student travel, as well as student grants and other activities. Without publication royalties, these programs simply would not have been possible, at least in their present form, given our relatively small membership and low membership fees.

Nominations requested for 2014 IAMG Awards!

The Association invites all members to submit nominations for the John Cedric Griffiths Teaching Award to honor outstanding teaching, with preference for teaching that involves application of mathematics or informatics to the Earth’s nonrenewable natural resources or to sedimentary geology. Age or academic status are not conditions for the award

and the William Christian Krumbein Medal awarded to senior scientists for career achievement, which includes (a) distinction in application of mathematics or informatics in the earth sciences, (b) service to the IAMG, and (c) support to professions involved in the earth sciences. There is no stipulated preference for fields of application within the earth sciences.

Deadline: January 31, 2014

Membership in IAMG is not a requirement for nomination. For details about prerequisites for nominations please see the IAMG web site www.iamg.org and click on Awards. There is also a list of past recipients and their laudations on the web site. Please have a look at it before sending your nominations!

The (informal) documents which should accompany a proposal are:

• a short statement summarizing the relevant qualifications of the nominee

Nobody gets an award without a nomination, so please support your colleague when you believe he/she deserves an award by submitting a nomination. Nominations can be submitted by a single person or by a group via e-mail to jackswe@q.com or sent to:

John H. Schuenemeyer - Chair, Awards Committee (see p.2)

Nominations for other Awards may also be submitted at any time.
International Association for Mathematical Geosciences

Officers of the Executive Committee

President: 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

Executive Vice President: Jennifer McKinley
School of Geography, Archaeology and Palaeoecology, Queen’s University, Belfast BT7 1NN, UK
Tel: 44 (0)28 90973827, E-mail: j.mckinley[at]qub.ac.uk

Secretary General: 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

Treasurer: David R. Collins
IAMG, PO Box 442504, Lawrence, KS 66044-7504, USA
Phone: 785-842-6092, E-mail: drc_iamg@hotmail.com

Other Voting Council Members

Past President: Vera Pawlowsky-Glahn
Universitat de Girona, Dpt. D’Informatica i Matematica Aplicada, Campus Montilivi P4, E-17071 Girona, Spain
Tel: +34 972 418 170, Fax +34 972 418 792, E-mail: president@iamg.org

Vice Presidents:
- Julián Ortiz
  Department of Mining Engineering, Universidad de Chile, Av. Tupper 2069, Santiago, Chile
  Phone: 56-2-987-4585, E-mail: jortiz[at]ing.uchile.cl
- Raimon Tolosana-Delgado
  Geosciences Mathematics and Informatics, TU Bergakademie Freiberg, Gustav-Zeuner-Str. 12, 09599 Freiberg, Germany
  E-mail: r.tolosana[at]hzdr.de

Editors

Computers & Geosciences
Jef Caers
Stanford University, Dept. of Energy Resources Engineering, Green Earth Sciences Bldg., Stanford, CA 94305-2220, USA
Tel: 650-723-1774, fax: 650-725-2099, E-mail: jcaers[at]stanford.edu

Mathematical Geosciences
Roussos Dimitrakopoulos
Department of Mining, Metals and Materials Engineering, McGill University, Montreal H3A 2A7, Canada
Tel: +1 514 398-4986, E-mail: roussos.dimitrakopoulos@mcgill.ca

Natural Resources Research
John Carranza
School of Earth and Environmental SciencesJames Cook University, Townsville, QLD 4811, Australia
Email: ejmcarranza[at]gmail.com

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 and Website
Harald S. Poelchau
10773 Lanett Circle, Dallas, TX 75238, USA
Tel: 214-221-1080, E-mail: hsp.iamg@inbox.com

Archivist
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: Graeme.bc1[at]mail.com

Councilors

Guillaume Caumon, École Nationale Supérieure de Géologie, Rue du Doyen Roubault, BP 40 –  F-54501 Vandœuvre-lès-Nancy Cedex, France
Phone: (33) 3 83 59 64 40; Fax: (33) 3 83 69 64 40
Guillaume.Caumon@univ-lorraine.fr

Yongqing Chen, School of Earth & Mineral Resources, China University of Geosciences Beijing, 29Xueyuan Road, Beijing 100083, China
E-mail: chyq126.com

Liu Gang, Faculty of Computer Science, China University of Geoscience, Wuhan, Hubei Province, 430074, China
Phone: +86-27-6883087, liugang67@163.com

E. June Hill, CSIRO, CESRE, PO Box 1130, Bentley, WA Australia 6102
Tel: +61 8 6436 8651, fax: +61 8 6436 8555
E-mail: June.Hill[at]csiro.au

Other IGC Councilors:
- Christien Thiart
  University of Cape Town, Department of Statistical Sciences, Private Bag, Rondebosch 7700, South Africa
  Tel: 27-21-650-3223, fax: 27-21-650-4773

Committee Chairs

Awards Committee: Jack Schuenemeyer
Southwest Statistical Consulting, LLC, 960 Sligo St., Cortez, CO 81321, USA
Tel/Fax: +1 970 565-0179
E-mail: jackswsc@q.com

Curriculum Quality Committee: Julián Ortiz
see address on left

Lectures Committee: Jennifer McKinley
see address on left

Meetings Committee: Ricardo Olea
U.S. Geological Survey, 12201 Sunrise Valley Drive, MS 956, Reston, VA 20192, USA
Tel.: 703-648-6414, Fax: 703-648-6419
E-mail: rolea@usgs.gov

Outreach Committee: Frits P. Agterberg
see address on left

Publications Committee: Eric Grunsky
Geological Survey of Canada, 601 Booth Street, Ottawa, Ontario K1A 0E8, Canada
Tel: +1 613 992 7258
Fax: +1 613 996 3726, E-mail: egrunsky[at]mail.com

Students Affairs Committee: Helmut Schaeben
Technische Universität Bergakademie Freiberg, Bernhard-von-Cotta Str. 2, 09596 Freiberg, Germany
E-mail: schaeben@geo.tu-freiberg.de

Historian
Dan F. Merriam, Kansas Geological Survey, University of Kansas, 1930 Constant Avenue, Lawrence, KS 66047, U.S.A.
Tel: (785) 864-2127, Fax: (785) 864-5317
E-mail: dmerriam[at]kgs.ukans.edu

- 2 -
This year is a special year for the International Association for Mathematical Geosciences: This year is our 45th anniversary and it is the International Year of Mathematics of Planet Earth (MPE2013). MPE2013 is a joint program supported by many international associations and organizations engaged in the promotion of Mathematics of Planet Earth. MPE2013 has created a broad awareness among both geoscientists and mathematicians. It is very important to our association and especially for the public to recognize IAMG and the importance of mathematics in geoscience. IAMG actively supported MPE at this year’s annual conference held in September in Madrid. There were about 370 participants from many different countries attending the conference. This was a truly spectacular conference with 27 sessions of oral/poster presentations covering a broad array of subjects, anywhere from classical to recent, some of which are listed here: advances in classical statistics relevant to geosciences, frontier geostatistics, compositional data analysis applied to geochemistry, machine learning geoscience applications, spatiotemporal analysis of structural complexity and extreme behavior, parameterization of soil systems at different scales, fractal, chaos and complexity in Earth System analysis, applications of remote sensing and geographical information systems, quantitative methods in geomorphology and land surface processes, prediction in hydrology, quantitative environmental geology, modeling of energy and mineral resources, quantitative methods applied to stratigraphy and paleontology, geomathematical modeling of folds and folding, mathematical geoscience and planetary geology, and stochastic nonlinear methods and inverse problem in dynamic models. The book entitled “Mathematics of Planet Earth” containing the extended abstracts of 184 papers presented at the conference was published by Springer in their Lecture Note series and this appropriately marked the special milestone of the 45th birthday of the IAMG. Many people have commented to me that this conference was most successful and one of the best annual conferences we have ever had. In this issue of the Newsletter, you will be able to read stories and view pictures about the conference. On behalf of the association, I would like to thank those who participated in the conference; in particular, Dr. Eulogio Pardo-Iguzqui, the Chair of the conference, and the local organizing committee team (Carolina Guardiola-Albert, Javier Heredia, Luis Moreno-Merino, and Juan Jose Duran) for the time and effort they put into hosting this successful event. I also want to thank the Spanish Geological Survey, Universidad Complutense de Madrid (UCM) and many other sponsoring organizations for their generous support.

Although a 45-year old profession association is still quite young, IAMG has already made significant contributions to science and to humanity by being a unique association comprised of a passionate, inspirational and dedicated group of scientists who integrate mathematics, statistics, computer science, geoinformatics and geosciences. While we can proudly list the many milestones achieved as reflected in our journals and conference proceedings and in other forms, we are also aware of the challenges and opportunities for sustainable development of the association. Quoting Ricardo Olea’s comment in his response to a survey recently conducted by the IAMG 2015 Strategic Planning Committee, “I think that for years the main aspiration of IAMG has been to grow into a larger organization of at least 2000 members. Such size would make IAMG look more of a full-fledged professional association, its democratic management and the quality of services provided to its members. This is largely depending on the mission of the association, its democratic management and the quality of services provided to its members. IAMG journals can certainly serve as the main platform for both promoting IAMG and serving our members. The question is how can we use the medium of our journals to publish not only quality articles but also to promote the IAMG as a whole? Do we have enough journals to cope with further IAMG developments? Are there any new possibilities or necessities to create more journals in order to open more doors? What strategy should IAMG take in the competitive world? Do we need to create new journals using any of the following titles: Quantitative Geosciences, Quantitative Modeling in Geoinformatics, Spatial Data Analysis, Mathematical Analysis of Nonlinear Geoprocesses, Nonlinear Geomathematics, Statistical Geosciences, Computational Geosciences, Compositional Data Analysis, Predictive Mapping in Geosciences, and Mathematics of Planet Earth? Or should we split the C&G Journal into series A: Computational Geology, series B: Computational Geophysics, series C: Computational Geo-Informatics, just to mention a few examples.

The International Year of Mathematics of Planet Earth will finish soon but the Mathematics of Planet Earth will continue. The momentum generated by the celebration of MPE will continue to remain in IAMG’s further activities including our next annual conferences to be held in Delhi, India in 2014, in Freiberg, Germany in 2015 and the joint conference at the 35th IGC in Cape Town, South Africa in 2016.
John Harbaugh newest IAMG Honorary Member

John Warvelle Harbaugh was born in Madison, Wisconsin on 6 August, 1926. He was an IAMG Charter Member and made many important contributions to our Association. Much of his early work on carbonates and his computing accomplishments were in cooperation with the Kansas Geological Survey. See Dan Merriam’s laudatio of John given when he received the William Christian Krumbein Medal in 1985 (on the IAMG website under Awards & Honors/Previous Award Winners). From 1996-98 he was chair of the IAMG Awards Committee. As professor at Stanford he introduced numerous students to mathematical geology and computer applications, of whom many became active in IAMG. John has written in detail about the history of Geomath at Stanford in IAMG Newsletters 58 and 59.

Having retired in 1999, John Harbaugh is Emeritus Professor at the Department of Geological and Earth Sciences of Stanford University. The last time we met with John was during the Stanford IAMG meeting in 2009. On several occasions during the past few years, John has provided us with new ideas on the future of mathematical geoscience. These inputs have been published in the IAMG Newsletter.

President Qiuming Cheng is planning to attend the AGU Fall Meeting to be held in San Francisco, 9-13 December, 2013. On that occasion, he will visit our Stanford Student Chapter and hand the award to John in person.

The IAMG Council has approved revisions of the guidelines for organizing IAMG meetings. These new guidelines were prepared by the IAMG Meetings Strategy Commission chaired by Vice President Raimon Tolosana-Delgado and will come into effect starting with the organization of IAMG2015. Look on the iamg.org website under Information about IAMG/Guidelines.

IAMG will co-sponsor GeoMap 2014, the Compositional Data Analysis workshop to be held in Olomouc, Czech Republic, June 17-20, 2014, co-chaired by Raimon Tolosana-Delgado and Karel Hron. Financial support to be provided is US$ 3000. See more on this workshop on page 15.

IAMG selects and sponsors two lecturers each year: The IAMG Distinguished Lecturer and the Georges Matheron Lecturer.

The Distinguished Lecturer prepares a series of lectures preferably on a variety of subjects in the mathematical geosciences to be presented in places where IAMG Annual Meetings are not normally held.

The Georges Matheron Lecturer should be a scientist with proven research ability in the field of spatial statistics or mathematical morphology. This lecture is presented at the Annual Meeting of the IAMG.

Letters of nomination for both these should include a curriculum vitae of the nominee and a short statement summarizing the ways in which he or she fulfills the nomination criteria (see http://iamg.org/special-lectures.html). Letters should be directed to the Chair of the Distinguished Lecture Series Committee by e-mail to: j.mckinley@qub.ac.uk

New IAMG Website

At the end of June we went live with our new IAMG website, hosted by Dragonfly, our webdesigner. The face of the website looks different but the structure and functionality is similar to the old one.

The change-over was the result of the deliberations of the IAMG Website Commission, established by Council in Brisbane and chaired by Dan Tetzlaff. In response to the very high annual fees of our old host and a reasonable offer by Dragonfly, and also an attempt by someone to hack the old website, the decision to migrate was made in December 2012. For a more detailed report look in the Council Minutes report for 2013 to be found at http://iamg.org-information-about-iamg-minutes-for-annual-iamg-meetings.html on page 35.

Since the start-up of the new website I have had to make only a few corrections or tweaks, in addition to the regular upkeep. Since there were no major complaints, I assume that the website is working satisfactorily for those who visit it.

Harald S. Poelchau
Website Content Editor

2013 Distinguished Lecturer Report

Pierre Goovaerts has been literally circling the earth giving talks. In his last report (NL 86) he described his travels to Brazil, Morocco, Turkey, France, The Netherlands and Sweden. Since then he has been to Taiwan, Korea, Japan, South Africa, Spain, Portugal, Australia, New Zealand, and in December he is planning yet another talk in Belgium. This adds up to a total of 26 talks and 2 short courses with an overall attendance of more than 900 including almost 600 students. That is probably a record for any DL.

Pierre summarizes his experience: “It was truly an honor to represent the IAMG during this year and it provided me with the unique opportunity to discover new countries, see old friends/colleagues and meet new colleagues. I was pleased to see how these talks quickly translated into two concrete outcomes: the participation of several South-Korean scientists from KIGAM to the IAMG meeting in Madrid and the current discussion about the organization of a future IAMG meeting in Ankara, Turkey. Other outcomes are the submission of manuscripts to Mathematical Geosciences (I received a few inquiries already) and hopefully an increase in our membership”.

Letter to the Editor:

1) I am very proud that the IAMG has not followed the IUGS and ICSU in their unfortunate inappropriate premature support of the top Italian seis-
ologists after the verdict in the 1st stage of the L’Aquila process. In fact our recent International Conference on Geosciences at Příbram has brought new in-views into that case. The accused scientists have completely denied any scientific background to the really existing prediction; possibilities to predict earthquakes DO exist.

2) In the plenary session of the ceremonial opening of the Mining Příbram Symposium I presented a special lecture under the title “Ethics in the science and techniques”, I added an “unofficial” subtitle: “PŘÍBRAM - ISLAND OF FREEDOM” remembering two historical aspects:

a) already in the years 1968 - 1989 the regular international meetings of mathematical geologists at Příbram - mostly under a moral support of the IAMG and visited by colleagues from both East and West - were giving to the Eastern colleagues an impression to be in the free world;

b) in 2013 I am happy to give opportunity to present at Příbram highly interesting scientific papers of authors refused by other “peer reviewed” publications.

3) A very dangerous situation of nowadays: environmentalists and the IPCC refuse to incorporate into their models real progressive results of Earth sciences (as presented by numerous sessions at the latest International Geological Congresses) admitting exclusively anthropological factors to the global warming. I suppose that the IAMG will continue in supporting the REAL PROGRESS with an increased attention to all verified achievements of Earth sciences.

4) Do not forget that PRAGUE as the IAMG birth-place will be the most appropriate place for celebrating the IAMG 50th anniversary in 2018!

Václav Němec
Student Affairs

Student Chapter News

A new IAMG Student Chapter is being established at the Water, Earth, Environment Center of the INRS (Institut National de la Recherche Scientifique) University in Quebec, Canada. This adds a seventh Student Chapter to our present six active chapters:
- China University of Geosciences - Wuhan, China
- Freiberg University of Mining & Technology, Germany
- Sun Yat-Sen University - Guangzhou City, China
- ENSG-Nancy University, Nancy, France
- ITC (ISCI), University of Twente, Enschede, The Netherlands
- Stanford University - Stanford, California, USA

And, apparently, there is an unofficial Lisbon Student Chapter where Distinguished Lecturer Pierre Goovaerts just gave a lecture in September.

At the 2013 IAMG conference in Madrid students set up a Student Chapter meeting to present some of their activities for each other. Four chapters reported: Stanford, CUG and Nancy in person, and Freiberg electronically via Skype.

Representatives of Student Chapters with Helmut Schaeben and Qiuming Cheng

IAMG 2013 Student Poster Award

Five students competed for the award for best student poster in Madrid. The winner was Jindong Xu, PhD candidate studying with Prof. Xianchuan Yu, for his poster “A method of mixed pixel decomposition for hyperspectral imagery”. The prize the winner received was a new HP laptop.

Student Research Grants for 2014!

IAMG invites all students to apply for
Computers & Geosciences,
Natural Resources Research, or
Mathematical Geosciences
Research Grants

Application Deadline: May 31, 2014

For general guidelines see page 8 of NL86 or go to “Student Affairs” on http://www.iamg.org. There is also a link to the Application Form. Candidates eligible to apply are currently undertaking Masters or Ph. D. studies and wish to use the award to conduct a period of research related to their thesis, or newly qualified Post Doctoral scientists who are within three years following the completion of their Ph. D. studies at the deadline for application.

Student Research Grant Awards

The following students won a Mathematical Geosciences Student Award:

Mohammad Ali Maleki Tehrani, PhD student from the Department of Mining Engineering, University of Chile, studying under Prof. Xavier Emery. The project title is “Geometallurgical ore body modelling”

Chen Guoxiong, PhD student, Faculty of Earth Sciences, China University of Geosciences, studying under Qiuming Cheng on a “Discussion of High-pass filtering of singularity method for extracting gravity and magnetic anomalies”

Dr. Li Liangping, working with Sanjay Srinivasan at The University of Texas at Austin on “A hybrid multiple-point statistics approach to integrate dynamic data into geological model”.

Natural Resources Research Student Award recipients are:

Pia Lois, Graduate student at the Universidad de Chile under Prof. Brian Townley working on “Analysis of the interaction of different types of rock, alteration and mineralization with aqueous alkaline media and its physico-chemical effects in the recovery of copper”

James MacNeil, Graduate student at McGill University under Roussos Dimitrakopoulos. His project is “High order stochastic simulations, parallelization and effects on stochastic mine production scheduling”

The Computers & Geosciences Research Scholarships go to:

Dr. Delphine Roubinet, University of Lausanne (Switzerland) with a project on “Discrete Dual Porosity Modeling of Electrical Current Flow in Fractured Media” with Dr. James Irving.

Carlos Loureiro, working under Dr. Andrew Cooper (Environmental Sciences Research Institute, University of Ulster, UK) and Dr. Oscar Ferreira (Centre for Marine and Environmental Research, University of Algarve, PT) on “What is actually happening in the rip-currents of embayed beaches? Development and validation of open-source parallel implementation of high-resolution coupled wave-circulation models for HPC clusters.”

Mojtaba Rajabi, PhD student at Australian School of Petroleum, University of Adelaide working with Associate Professor Mark Tingay on “The Present-day Stress Field of Australia”

Aikaterini Spanoudaki, Institute for Applied and Computational Mathematics, Foundation for Research and Technology in Heraklion, Crete, working under Dr. Nikolaos Karimpanis in a project on “3D numerical modelling of surface water-groundwater flow and salinity interactions in the coastal zone”.

Dan Merriam is now “50”

In 1983, Daniel Francis Merriam was presented the “Godfather of Mathematical Geology” award by IAMG Secretary General John Davis in recognition of twenty years service as “arranger, promoter and patron“ of Mathematical Geology from its early beginnings. The year 2013 now marks the 50th anniversary of the event that launched the Kansas Geological Survey into the uncharted waters of computer applications to geology. This was Dan’s publication as special editor of: “BALGOL program for trend-surface mapping using an IBM 7090 computer” by his lifelong friend and collaborator, John W. Harbaugh. The publication marked the beginning of his activities as editor of the highly successful KGS Computer Contribution series and convener of meetings of mathematical geology pioneers that led to the foundation of the IAMG in 1968.

Dan continues to come to work at the Survey every day and prepares manuscripts that describe the contributions of famous geologists to the development of the science. He attributes his longevity to moon pies, Chenin blanc, and his Swedish heritage. God hälsa! In the picture above, the Godfather meets the Father of Mathematical Geology (Andrew Vistelius) on Calton Hill in Edinburgh at the International Sedimentology Congress in August, 1967. Which is which? You decide.

John Doveton
Lawrence, Kansas
Member News

Reinhard Pflug 1932 - 2012

After studying geology at Tübingen, Reinhard Pflug received his PhD in Bonn with a dissertation on an area in northern Spain under Roland Brinkmann. He taught in Rio de Janeiro and conducted extensive field work in Minas Gerais (Brazil) which led to his habilitation in 1964 at the University of Heidelberg. In 1972 he was appointed Chair of Geology and Paleontology at the University of Freiburg, Germany. There he started promoting computer applications for geologic data and mapping programs and made Freiburg a center for quantitative geoscience research and teaching. Many students were able to use the department’s modern facilities and the programming courses offered. Pflug supervised 51 doctoral dissertations and more than 100 master’s theses. After his retirement in 2000, Prof. Pflug was still active in the development of the GeoKart program for creating geological maps. He will also be remembered for the Pflug Foundation which he established to support students’ geologic field work and excursions.

Reinhard Pflug died on 9 February 2012.

(Based on an article in Gmit #48, 2012)

R. Ian Crocker is now Airborne Remote Sensing Scientist at The National Ecological Observatory Network (NEON, Inc.) in Boulder, Colorado. Phone 720-746-4847; rcrocker@neoninc.org

Qiuming Cheng reports: My research project entitled “Nonlinear Theories and Methods for Mineral Resources Prediction” has been selected as one of the candidates for the Chinese National Award of Science and Technology Advancement. After the final approval by the central committee, the final announcement of the award will be made at the beginning of next year at the National Annual Congress of Science and Technology. This award would be the first award of this type for the last 15 years awarded in the field of Mathematical Geosciences. There was one awarded in the 90’s. This will be encouraging for the MG in China especially for motivating young MG people.

Peter Dowd writes: Allen “Bon” Royle died 16th August 2013 aged 89. He was diagnosed with a form of lung cancer last October but didn’t want it to be widely known. I spoke to Bon the previous Sunday by telephone and, although his voice was not at its best, he was still his jovial self.

Bon was a pioneer in the application and dissemination of geostatistics in the English-speaking world and the founder of the Geostatistics School at Leeds. He was a very close personal friend and colleague for almost 45 years and I will miss him.

See Ron’s obituary at http://www.leeds.ac.uk/secretariat/obituaries/2013/royle_allen.html

Xiaogang (Marshall) Ma has been working with the Deep Carbon Observatory-Data Science project since he joined Rensselaer Polytechnic Institute in the summer of 2012. The Deep Carbon Observatory (DCO) is a ten-year global quest to discover the quantity, movements, origins, and forms of Earth’s deep carbon. The target of his work is assembling an Internet-based Deep Earth Observatory (DCO) is a ten-year global quest to discover the basic transfer processes of mass and energy from the rivers drainage area to the receiving basin in the South China Sea. The Institute of Marine and Coastal Sciences (IMCS) at the University of Szczecin, Poland, focuses its research topics on the Baltic Sea, its southern coast and the role of the Odra River for the supply of suspended matter and the morphogenesis of the multiple system: River–Sea–Coast. Because of similarity in the research foci, the institutes have co-operated already for years, and in continuation of the good relations of their institutes, Prof. Jianxue Wu from the CCOST and Prof. Jan Harff from the IMSC organized an international workshop “Evolution and dynamics of the Pearl River Mouth System (PRMS), South China Sea” held at the School of Marine Sciences, Sun Yat-sen University on May 23 and 24, 2013. Scientists from PR China, Hong Kong, Taiwan, Poland and Germany presented and discussed their latest results grouped into the sessions:
- Sedimentary Facies and Stratigraphy
- Remote Sensing in Estuaries
- Sediment Dynamics and Geochemistry
- Estuarine Dynamics and Sediment Transport
- Morphodynamics in estuaries

In a final discussion the participants defined advanced research topics as the base for new research concepts and projects on the cutting edge of interdisciplinary marine sciences in the coastal ocean. Selected papers will be published as a special publication of the Geological Society of London. The title of the book is “River-dominated Shelf Sediments of East Asian Seas”.

The organizers paid attention in particular to the integration of young scientists into the discussion. PhD students used the stage of the workshop to present outcomes of their studies. A special poster session shed light on the active role of PhD, graduate, and undergraduate students in the research activities.

The week before the workshop, from May 13 to 17, 2013, was reserved for as special educational program for students and young scientists at the CCOST and the partner organization Guangzhou Marine Geological Survey (GMGS). In 5 lectures and seminars Prof. Jan Harff gave an introduction to the topics:

- Marine geology of continental margins
- Depositional environment and sedimentary facies on the continental shelf
- Climate change as reflected in marine sediments
- Relative sea level change: competition of geological processes and climate variation
- Coast and society

Jan Harff / Jianxue Wu

Conference Report

China - Poland Cooperation Project on Pearl River Mouth System

River mouth systems play a key role in the interaction between continents and the ocean. Studying this interaction, the Center for Coastal Ocean Sciences and Technology (CCOST) of Sun Yat-Sen University in Guangzhou, China, concentrates its research to the Pearl River Mouth System in order to understand the basic transfer processes of mass and energy from the rivers drainage area to the receiving basin in the South China Sea. The Institute of Marine and Coastal Sciences (IMCS) at the University of Szczecin, Poland, focuses its research topics on the Baltic Sea, its southern coast and the role of the Odra River for the supply of suspended matter and the morphogenesis of the multiple system: River–Sea–Coast. Because of similarity in the research foci, the institutes have co-operated already for years, and in continuation of the good relations of their institutes, Prof. Jianxue Wu from the CCOST and Prof. Jan Harff from the IMCS organized an international workshop “Evolution and dynamics of the Pearl River Mouth System (PRMS), South China Sea” held at the School of Marine Sciences, Sun Yat-sen University on May 23 and 24, 2013. Scientists from PR China, Hong Kong, Taiwan, Poland and Germany presented and discussed their latest results grouped into the sessions:

- Sedimentary Facies and Stratigraphy
- Remote Sensing in Estuaries
- Sediment Dynamics and Geochemistry
- Estuarine Dynamics and Sediment Transport
- Morphodynamics in estuaries

In a final discussion the participants defined advanced research topics as the base for new research concepts and projects on the cutting edge of interdisciplinary marine sciences in the coastal ocean. Selected papers will be published as a special publication of the Geological Society of London. The title of the book is “River-dominated Shelf Sediments of East Asian Seas”.

The organizers paid attention in particular to the integration of young scientists into the discussion. PhD students used the stage of the workshop to present outcomes of their studies. A special poster session shed light on the active role of PhD, graduate, and undergraduate students in the research activities.

The week before the workshop, from May 13 to 17, 2013, was reserved for as special educational program for students and young scientists at the CCOST and the partner organization Guangzhou Marine Geological Survey (GMGS). In 5 lectures and seminars Prof. Jan Harff gave an introduction to the topics:

- Marine geology of continental margins
- Depositional environment and sedimentary facies on the continental shelf
- Climate change as reflected in marine sediments
- Relative sea level change: competition of geological processes and climate variation
- Coast and society

Jan Harff / Jianxue Wu

Participants on May 17, 2013 in front of the CCOST building
IAMG 2013 in Madrid

The 15th Annual Conference of the International Association for Mathematical Geosciences was successfully held in Madrid at the Mathematics Department of the Universidad Complutense (located in the Moncloa Campus) from the 2nd to 6th of September 2013. There were about 370 participants from more than forty different countries attending the conference. During the conference, four plenary lectures, twenty seven technical sessions, more than a hundred posters in seven poster sessions were held, as well as IAMG business meetings including Council Meeting, Publications Committee meetings, and journal meetings.

The conference will be remembered for the high-quality oral/poster technical presentations as well as by the social events. The local organizing committee team (Eulogio Pardo-Igúzquiza, Carolina Guardiola-Albert, Javier Heredia, Luis Moreno-Merino, and Juan José Durán) from the Spanish Geological Survey want to thank all the participants, the IAMG Council, the Universidad Computense de Madrid and many other sponsoring organizations for their support.

Thanks to Luis Moreno, Jenny McKinley and Ming Wu who contributed some of the pictures. Ed.
Chayes Prize for Raimon Tolosana

City Hall reception at the Cecilio Rodriguez Gardens, Parque del Retiro

Salsa night social event
IAMG Newsletter No. 87

Moreno

The Gala Dinner in the Madrid Casino

Pierre Goovaerts, 2013 Distinguished Lecturer

Ming

IAMG 2013 Fieldtrip

Fieldtrip leaders Enrique Díaz and Carolina Guardiola-Albert

Castle of Manzanares el Real
Call for papers: 

**Computers & Geosciences - Special Issue**

*Statistical learning in geoscience modelling: novel algorithms and challenging case studies*

Guest Editors: Vasily Demyanov (Heriot-Watt University) & Mikhail Kanevski (University of Lausanne)

**Motivation and description**

Significant interest has been attracted to machine learning applications in geoscience problems in the recent years. A wide variety of data driven algorithms – artificial neural networks, support vector machines and many other kernel-based methods, evolutionary algorithms etc. – have been applied to different geoscience data analysis and modelling problems. At present, machine learning becomes more and more a conventional approach in modelling along with traditional statistical and physical approaches. Therefore, it has become important to demonstrate how statistical learning helps to make inferences on the physical dependencies in the behaviour of natural systems. The insights from the statistical learning would help to resolve some of the uncertainties associated with the description in Earth models. Priority will be given to the contributions that propose novel algorithms developed for geoscience application. We do not consider applications of already established and recognised computer codes (commercial or free ware) to another data set, which does not contain a geoscientific challenge.

Contribution are sought in, but not limited to:

- Novel statistical learning algorithms applied to geoscience modelling problems
- Geo- and environmental data mining
- Comparative performance of statistical learning algorithms with traditional statistical and physical modelling techniques on exhaustive case studies with both conventional geoscience benchmark problems and real data cases.
- Combination of statistical learning techniques and physical/statistical models within geoscience modelling workflows.
- Inverse modelling statistical learning in inverse modelling and uncertainty propagation in geoscience applications.
- Application of statistical learning to large-scale real datasets to solve geoscience modelling problems.

**Timeline**

February 15th, 2014, abstracts or paper proposals due, send to the Editor-in-Chief, Jef Caers, jcaers@stanford.edu

April 15th, notification of abstract acceptance

August 31st, papers due

2014/2015: publication in Computers & Geosciences

John Carranza, Editor-in-Chief
Natural Resources Research
Volume 22, Issue 3, September 2013
Potential Use of Remote Sensing Techniques for Exploration of Iron Deposits in Western Sahara and Southwest of Algeria — Andrea Ciampalini, Francesca Garfagnoli, Chiara Del Ventisette & Sandro Moretti
Image Segmentation for Hydrothermal Alteration Mapping Using Scan DCA and Concentration-Area Fractal — Hadi Shahriri, Hojjatollah Ranjarb & Mehdi Honarmand
Spatial Prediction of Lateral Variability of a Laterite-Type Bauxite Horizon Using Ancillary Ground-Penetrating Radar Data — Oktay Ertan, Mehmet Siddik Kizil, Erkan Topal & Lachlan McAndrew
A Simulated Annealing-Based Algorithm to Locate Additional Drillholes for Maximize the Realistic Value of Information — Saeed Soltan-Mohammadi & Arashdez Hezarkhani
Monte Carlo Simulations of Product Distributions and Contained Metal — M. E. Gettings
Review of the NURE Assessment of the U.S. Gulf Coast Uranium Province — Susan M. Hall
Mathematical Geosciences
Volume 45, Issue 4, May 2013
Original Papers
Construction of Binary Multi-grid Markov Random Field Prior Models from Training Images — Håkon Toftaas & Håkon Tjelmeland
Kriging and Spatial Design Accelerated by Orders of Magnitude: Combining Low-Rank Covariance Approximations with FFT-Techniques — W. Nowak, A. Litvinenko
Stochastic Simulation Model for the Spatial Characterization of Lung Cancer Mortality Risk and Study of Environmental Factors — Ana Rita Oliveira, Cristina Branquinho, Maria Pereira, Ana Clear Sources
Automatic Variogram Modeling by Iterative Least Squares: Univariate and Multivariate Cases — N. Desassis, D. Renard
Covariance-Based Variable Selection for Compositional Data Analysis — Werner S. M. Borchert, Peter Filzmoser, Sandra Donevska, Eva Fiserová
Book Review
R. Schneider & W. Welt: Stochastic and Integral Geometric Analysis — Pierre Calka
Announcement
The Editor’s Best Reviewer Award 2011-2012 — Roussos Dimitrakopoulos
JOURNAL CONTENTS
MG Volume 45, Issue 5, July 2013
Special Issue on Environmental Geostatistics
Special Issue on Environmental Geostatistics — J. Jaime Gómez-Hontoso & Celine Scheid
Geostatistics of Dependent and Asymptotically Independent Extremes — A. C. Davison, R. Huser, E. Thibaud
Efficient Simulation of (Log)Normal Random Fields for Hydrogeological Applications — Phaedon Kyrtzikas, Petros Gaganis
Complex-Valued Random Fields for Vectorial Data: Estimating and Modeling Aspects — S. De Iaco, D. Poso, M. Palma
Geostatistical Data Integration Model for Contaminated Groundwater — Ana Horta, Pedro Correia, Luíz Menezes Pinheiro, Amilcar Soares
Geostatistical Assessment of Ice Content Distribution within the Glacier Bonnard — Nicolas Jeanneé, Eric Bardou, Claire Faucheux, Pascal Ormstein
Local and Global Error Models to Improve Uncertainty Quantification — Laureline Josset, Ivan Lunati
Stochastic Simulation of Nonstationary Rainfall Fields, Accounting for Atmospheric Circulation Pattern Evolution — Gonzalo Sapriza Azuri, Jorge Jódar, Jesús Carrera, Hoshin Jeannée
Stochastic Distance Based Geological Boundary Modeling with Curvilinear Features — Maksudul Karim & Sanil Ahmed
Time-Lapse Analysis of Methane Quantity in the Mary Lee Group of Coal Seams Using Filter-Based Multiple-Point Geostatistical Simulation — C. Özgen Karacan & Ricardo A. Olea
Applications
Seismic Characterization of Iran; A Multivariate Statistical Approach — Seyed Naser Hashemi
Impact of Geometric and Petrographic Characteristics on the Variability of LA Test Values for Railway Ballast — Vera Hofer, Holger Bach, Christine Latal & Anna-Christina Neubauer
Pore System Characterization and Petrophysical Rock Classification Using a Bimodal Gaussian Density Function — Chicheng Xu & Carlos Torres-Velín
Book Review
Vyacheslav G. Rumynsub: Subsurface Solute Transport Models and Case Histories, with Application to Radionuclide Migration — Daniele Bassett
MG Volume 45, Issue 6, August 2013
Special Issue
Stochastic Based Distance Geological Boundary Modeling with Curvilinear Features — Maksudul Karim & Sanil Ahmed
Time-Lapse Analysis of Methane Quantity in the Mary Lee Group of Coal Seams Using Filter-Based Multiple-Point Geostatistical Simulation — C. Özgen Karacan & Ricardo A. Olea
Applications
Seismic Characterization of Iran; A Multivariate Statistical Approach — Seyed Naser Hashemi
Impact of Geometric and Petrographic Characteristics on the Variability of LA Test Values for Railway Ballast — Vera Hofer, Holger Bach, Christine Latal & Anna-Christina Neubauer
Pore System Characterization and Petrophysical Rock Classification Using a Bimodal Gaussian Density Function — Chicheng Xu & Carlos Torres-Velín
Book Review
Vyacheslav G. Rumynsub: Subsurface Solute Transport Models and Case Histories, with Application to Radionuclide Migration — Daniele Bassett
MG Volume 45, Issue 7, October 2013
The Value of Information in Mineral Exploration Within a Multi-Gaussian Framework — Jöel Einhorn, S.L.S. Stipp
An Uncertainty Quantification Framework for Studying the Effect of Spatial Heterogeneity in Reservoir Permeability on CO2 — Zhanguo Hou, Dave W. Engel, Guang Lin, Yilin Fang & Zhufeng Fang
Elliptically Symmetric Distributions of Elevation Gradients and the Distribution of Topographic — M. S. Bartlett, G. Vico & A. Porporato
Extending the Application of a Shale Volume Estimation Formula Derived from Factor Analysis of Wireline Logging Data — Norbert P. Szabó & Mihály Dobróka
Robust Estimation for the Weibull Process Applied to Eruption — Ting Wang & Mark Bebbington
Computers & Geosciences
Volume 49 (December 2012)
Research Articles
Parallel computation of satellite orbit acceleration — Phong V. L. Le, Praveen Kumar, Darren T. Drewry, Juan C. Quijano
Adaptive hybrid optimization strategy for calibration and parameter estimation of physical process models — Yelimir V. Vesselinov, Dylan R. Harper
Implementation and performance optimization of a parallel contour line generation algorithm — Jie Xie
A system for beach video-monitoring: Beachkeeper plus — Massimo Brignone, Chiara F. Schiaffino, Federico I. Isla, Marco Ferrari
Using TOPSIS approaches for predictive porphyry Cu potential mapping: A case study in Ahar-Arasbaran area (NW, Iran) — Kaveh Pazand, Arashdez Hezarkhani, Mohammad Ataei
A graphical user interface for numerical modeling of acclimation responses of vegetation to climate change — Phong V. L. Le, Praveen Kumar, Darren T. Drewry, Juan C. Quijano
Using value of information and mobility constraints for sampling with mobile sensors — Daniela Ballari, Sytze de Brun, Arnold K. Bregt
GPS simulation based on complex frequency shift-corrected recursive integration PML boundary of 3D high order FDTD — Jing Li, Zhaofa Zeng, Ling Huang, Fengshan Liu
Improved segregation of X-ray tomography data from porous rocks using a dual filtering approach — D. Mütter, S. Pedersen, H.O. Sørensen, R. Feidenhansl, S.L.S. Stipp
Orientation domains: A mobile grid clustering algorithm with spherical constraints — Ioana Mezen, Oscar Gratacos, Mercé Farré, Joan Estalella, Pau Arbus, Josep Anton Muñoz
Methodology of organic-rich shale lithofacies identification and prediction: A case study from Marcellus Shale in the Appalachian basin — Guo-chang Wang, Timothy R. Carr
Social.Water — A crowdsourcing tool for environmental data acquisition — Michael N. Fienen, Christopher S. Lowry
Geophysical model enhancement technique based on blind deconvolution — Boox Zhao, Xiangyun Hu
A hybrid Laplace transform finite analytic method for solving transport problems with large Peclet and Cnoidal waves — Pranab Kanti Bhattacharya
Spatial and temporal analysis of trishear fault-propagation folding with growth strata — Chun Liu, Hongwei Yin, Lili Zhou
Load Love numbers and Green’s functions for elastic Earth models PREM, iasp91, ak135, and modified models with added crustal structure from Crust 2.0 — Hanyong Wang, Longwei Xiang, Lulu Jia, Liming Jiang, Zhiyong Wang, Bo Hu, Pei Gao
TrishareCreator: A tool for the kinematic simulation and strain analysis of trishear fault-propagation folding with growth strata — Chun Liu, Hongwei Yin, Lili Zhou
Spectral and cross-spectral analysis of uneven time series with the smoothed Lomb-Scargle periodogram and Monte Carlo evaluation of statistical significance — Eulogio Pardo-Igúzquiza, Francisco J. Rodíguez-Tovar
Inverse methods for modeling non-ridge plate kinematics: Application to mesozoic plate reconstructions of the Central Atlantic — Erik A. Kneller, Christopher A. Johnson, Garry D. Karner, Jesse Einhorn, Thomas A. Queffelec
A fully-automated image processing technique to improve measurement of suspended particles and flocs by removing out-of-focus objects — Ali Keyvani, Kyle Strom

Acceleration of stable TTI P-wave reverse-time migration with GPUs — Yoshinori Kim, Yowchee Cho, Uogi Ino, Chisahiro Shinnami

The ANU GRACE visualisation web portal — Neda Darbeheshti, Li Zhou, Paul Tregoning, Simon McClusky, Anthony Purcell

An automatic method to create flow lines for determination of glacier length: A pilot study with Alaskan glaciers — Raymond Le Bris, Frank Paul

Neural network modeling and prediction of resistivity structures using VES Schlumberger data over a geothermal area — Upendra K. Singh, R.K. Tiwari, S.D. Singh


A stable downward continuation of airborne magnetic data: A case study for mineral prospectivity mapping in Central Iran — Maysam Abedi, Ali Gholami, Gholam-Hossein Norouzi

Computer-aided image geometry analysis and subset selection for optimizing texture quality in photorealistic models — Aleksandra Anna Sima, Xavier Bonaventura, Mikel Feixas, Mateu Sbert, John Anthony Howell, Ivan Viola, Simon John Buckley

Compute unified device architecture (CUDA)-based parallelization of WRF Kessler cloud microphysics scheme — Jaroo Malakar, Bormin Huang, Jun Wang, H.-L. Allen Huang, Mitchell D. Goldberg

Multi-tree Coding Method (MCM) for drainage networks supporting high-efficient search — Hao Wang, Xudong Fu, Guqiang Wang

A practical guide to performing multiple-point statistical simulations with the Hierarchical Sampling algorithm — Ief Meerschman, Guillaume Pirot, Gregoire Maretthoz, Mathias van Straubenzee, Michel Van Meirvenne, Philippe Renard

Extracting paleoclimate signals from sediment laminae: An automated 2-D image processing method — Stoney Q. Gan, Christopher A. Scholz

Underground stope optimization with network flow method — Xiaoyu Bai, Denis Marcotte, Richard Simon

A computational tool for ionosonde CADI’s ionogram analysis — Valdir Gil Pillat, Lamartine Nogueira Frutuoso Guimaraes, Paulo Roberto Fagundes, Jon Deimlisio Simes da Silva

Topological inversion in geodesy-based, non-linear problems in geophysics — M. Ntogsitomi, Stathis C. Sturos

Efficient occlusion-free visualization for navigation in mountainous areas — Hao Deng, Liqiang Zhang, Chunming Han, Yingchao Ren, Liang Zhang, Jonathan Li

Application of the analytical hierarchy process (AHP) for landslide susceptibility mapping: A case study from the Tinial watershed, west Nepal — P. Kayashia, M.R. Dhital, F. De Smedt

The viStaMPS tool for visualization and manipulation of time series interferometric results — Joaquim J. Sousa, Luis G. Magalhães, Antonio M. Ruiz, António M.R. Sousa, Gil Cardoso

Long term forecasting of groundwater levels with evidence of non-stationary and non-linear characteristics Original — R Maheswaran, Rakesh Khosa

A universal emulator of the Xin-Chen model for engineering applications in semi-arid regions — Mohamed A. Gad

DISRAY: A distributed ray tracing by map-reduce — Afshane Mohammadzaheri, Hossein Sadeghi, Sayyed Keivan Hosseini, Mahdi Navazandeh

Pollution models and inverse distance weighting: Some critical remarks — Louis de Mestrand

SIIPPS: A Matlab toolbox for sampling the solution to inverse problems with complex prior information: Part 1 — Methodology — Thomas Meier Hansen, Knud Skou Cordua, Majken Caroline Looms, Klaus Mosegaard

SIIPPS: A Matlab toolbox for sampling the solution to inverse problems with complex prior information: Part 2 — Application to crosshole GPR tomography — Thomas Mejer Hansen, Knud Skou Cordua, Majken Caroline Looms, Klaus Mosegaard

Application Articles

Geo3D: A framework for the development of geographic data acquisition and dissemination servers — S. Villarroya, J.R. Viqueira, J.M. Cotos, J.C. Flores

Seismic hazard analyses for Taipei city including deaggregation, design spectrum and time history with excel applications — Jiu-Pin Wang, Duruo Huang, Chin-Tung Cheng, Kuo-Shin Shao, Yuan-Chieh Wu, Chih-Wei Chang

Prediction of mining subsidence under thin bedrocks and thick unconsolidated strata based on field measurement and artificial neural networks — Weifeng Yang, Xiaohong Xia

Doing fieldwork on the seafloor: Photogrammetric techniques to yield 3D visual models from ROV video — Tom Kwasnitschka, Thor H. Hansteen, Colin W. Devey, Steffen Kutterolf

Seismic hazard analyses for Taipei city including deaggregation, design spectrum and time history with excel applications — Jiu-Pin Wang, Duruo Huang, Chin-Tung Cheng, Kuo-Shin Shao, Yuan-Chieh Wu, Chih-Wei Chang

Prediction of mining subsidence under thin bedrocks and thick unconsolidated strata based on field measurement and artificial neural networks — Weifeng Yang, Xiaohong Xia

Doing fieldwork on the seafloor: Photogrammetric techniques to yield 3D visual models from ROV video — Tom Kwasnitschka, Thor H. Hansteen, Colin W. Devey, Steffen Kutterolf

Solid modeling techniques to build 3D finite element models of volcanic systems: An example from the Rabaul Caldera system, Papua New Guinea — Erika Ronchin, Timothy Masterlark, Joan Martl Molfist, Steve Saunders, Wei Tao

Mobile capture of remote points of interest using line of sight modelling — Sam Meek, Gary Priestnall, Mike Sharples, James Goulding
GeoMap (CoDA) Workshop in Olomouc

The first international Workshop on Practical Aspects of Geochemical Exploration and Mapping with Logratio Techniques, will be held from June 17-20, 2014 in Olomouc (Czech Republic). This workshop offers a practical forum of discussion for people concerned with the statistical treatment, modelling and interpolation of compositional data in geochemical applications, particularly focused on geochemical exploration and mapping. The workshop will mainly consist of a series of invited lectures on the problems of geochemical mapping, followed by discussions on each of the compositional topics raised. The goal of the workshop is to build teams to attack each of these specific topics and to provide enough time space for panel discussions. GeoMap will touch a wide variety of problems and opportunities that the log-ratio approach to compositional data analysis brings to regional geochemistry contexts. Particularly, the main specific feature of the workshop will be discussions for concrete problem solving and team building. Complementary, contributions of participants from the fields of interest of the workshop are warmly welcome, especially if they portray unsolved problems. All participants should be somewhat familiar with the log-ratio approach to compositional data analysis (otherwise, an introductory or an intermediate course may be provided). Members of the Program Committee are renowned experts in the field, like Past-President of IAGC (International Association of GeoChemistry) Dr. Clemens Reimann and Vice-President of IAMG Dr. Raimon Tolosana-Delgado. This will guarantee a high quality of the scientific program. One of the keynote speakers will be Dr. Eric Grunsky from the Geological Survey of Canada, recently elected as Distinguished Lecturer of IAMG for the year 2014. For participants of the workshop, also a social program in the wonderful and scenic city of Olomouc, the second largest (after Prague) National Historic Reserve in the Czech Republic, will be prepared. GeoMap 2014 aims to gather scientists from geochemistry, chemometrics and compositional data analysis to discuss the current challenges and opportunities presented by the application of logratio statistical methods to regional geochemistry. Those who are interested in getting more information are invited to visit http://geomap.data-analysis.at .

Raimon Tolosana-Delgado
(Helmholtz-Institute Freiberg for Resource Technology)
Chair of the Program Committee
Karel Hron (Palacky University Olomouc)
Chair of the Organizing Committee

GeoStatistical and Geospatial Approaches for the Characterization of Natural Resources in the Environment: Challenges, Processes and Strategies

Note from N. Janardhana Raju, (Chairman), Jawaharlal Nehru University, India:

“We have updated fully our website jnu.ac.in/Conference/IAMG2014 and registration is also open. I have personally visited some south Indian institutes for the vast circulation of the IAMG2014. I have booked 6 halls in the JNU Auditorium for the parallel sessions. All rooms are at one place, side by side. Recently JNU has constructed this huge complex for the conferences.

1) Three lecture halls at the capacity of around 100 persons
2) Two auditoriums at the capacity of 370 and 3200 persons
3) Committee room at the capacity of around 110 persons.”

IAMG Newsletter No. 87


GEOMAP Workshop - Practical Aspects of Geochemical Exploration and Mapping with Logratio Techniques, Olomouc (Czech Republic), 17-20 June 2014. http://geomap.data-analysis.at, E-mail geomap2014@gmail.com (see also description on the right)


IAMG 2014 Annual Conference, Jawaharlal Nehru University, New Delhi, India, 17-20 October 2014. http://www.jnu.ac.in/Conference/IAMG2014 Phone: +91-9910629336, E-Mail: iamg14@yahoo.com or iamg0014@gmail.com


International Statistical Institute, 60th ISI World Statistics Congress, Rio de Janeiro, Brazil, 27 - 31 July 2015. ISI Permanent Office, P.O. Box 24070, 2490 AB The Hague, The Netherlands. Phone: +31–70–3375737, Fax: +31–70–3860025, E-mail: isi@cbs.nl

CALL FOR PAPERS

Earth Science Informatics
Special Issue - Semantic e-Science

Guest Editors:
Xiaogang Ma, Rensselaer Polytechnic Institute, max7@rpi.edu
Peter Fox, Rensselaer Polytechnic Institute, pfox@cs.rpi.edu
Thomas Narock, University of Maryland, Baltimore County, thomas.w.narock@nasa.gov
Brian Wilson, NASA Jet Propulsion Laboratory, bdwilson@jpl.nasa.gov

Science has fully entered a new mode of operation. E-science, defined as a combination of science, informatics, computer science, cyberinfrastructure and information technology, is changing how people in science disciplines conduct both individual and collaborative work. As e-Science matures and the barriers to data are being lowered, other more challenging questions are emerging, such as, “How do I use this data that I did not generate?” or “How do I use this data type, which I have never seen, together with the data I use every day?” or “What should I do if I really need data from another discipline but I cannot understand its terms?” As the volume, complexity, and heterogeneity of data resources grow, scientists increasingly need new capabilities that rely on “semantic” approaches (e.g., in the form of ontologies and vocabularies—machine encodings of terms, concepts, and relations among them) to help understand the meaning of data. The field of semantic e-Science fosters the growth and development of data-intensive scientific applications based on semantic methodologies and technologies, as well as related knowledge-based approaches. In recent years, semantic methodologies and technologies have been gaining momentum in e-Science areas such as solar-terrestrial physics, geology, ecology, oceanography, meteorology, and life sciences, to name a few. The developers of e-Science infrastructures are increasingly in need of semantic-based methodologies, tools, and middleware. This infrastructure will in turn facilitate scientific knowledge modeling, logic-based hypothesis checking, semantic data integration, application composition, integrated knowledge discovery and data analysis for different scientific domains, and building systems for use by scientists, students, and, increasingly, non-experts.

This special issue invites research papers that demonstrate how semantic methodologies and technologies are currently meeting scientific or engineering goals in Earth and space science domains. Papers should highlight the innovative designs, methods or applications associated with the semantic technologies. Review papers presenting state-of-the-art knowledge about a subject in semantic e-Science and methodology and software papers about a new algorithm or software package are also welcome. Authors should prepare their papers following the instructions for authors provided by Earth Science Informatics. Papers should be submitted on-line indicating the special issue “Semantic e-Science”. Authors may contact a guest editor about their intention to submit, including a short description of the intended submission. Earth Science Informatics is a widely indexed and circulated international journal: http://www.springer.com/earth+sciences+and+geography/journal/12145.

Dates:
Full papers due: Mar. 15, 2014
End of the first review cycle: Jun., 2014
End of the second review cycle: Aug., 2014
Tentative publication date: Second half of 2014