



January 8, 2008

IUGS Secretariat
Geological Survey of Norway
N-7491 Trondheim
NORWAY

Dear Sir or Madam:

This is the International Association for Mathematical Geology Annual Report to IUGS for 2007.

A highlight of our 2007 activities was our organization of the 11th IAMG Annual Meeting August 26th – 31st, 2007, in Beijing, China. The Conference focused on Geomathematics and GIS Analysis of Resources, Environment and Hazards. The IAMG is now planning its 12th 2008 Annual IAMG Meeting, which will be held during the 33rd International Congress in Oslo next August.

We are requesting a grant of \$5,000 from the IUGS to support travel expenses of scientists to our Twelfth 2008 Annual IAMG meeting. These funds would be used to assist scientists from developing countries and Eastern Europe to travel to IAMG 2008.

I look forward to hearing from you and hope you will find our budget request worthy of your support.

Sincerely,

Frits Agterberg
President, IAMG

cc.: IAMG Council

International Union of Geological Sciences

ANNUAL REPORT OF AFFILIATED ORGANIZATION:

International Association for Mathematical Geology

2007

The IAMG (International Association for Mathematical Geology) is a non-profit organization established August 22, 1968, during the 23rd International Congress in Prague. The mission of the IAMG is to promote, worldwide, the advancement of mathematics, statistics and informatics in the Geosciences. We maintain a website (www.iamg.org) and, twice annually, publish the IAMG Newsletter that also is on our website.

Although we are a relatively small organization with slightly more than 600 members at the end of 2007, we publish three well-known international scientific journals: *Computers & Geosciences* with Elsevier as publisher, and *Mathematical Geosciences* (previously named *Mathematical Geology*) and *Natural Resources Research* with Springer. We also publish a monograph series with Oxford University Press.

IAMG organizes an annual conference. Last year's conference was held in Beijing, China, August 26-31, 2007, focusing on Geomathematics and GIS Analysis of Resources, Environment and Hazards. Attended by more than 400 participants, this was the largest IAMG annual meeting ever. Zhao Pengda and Frits Agterberg were Conference Co-chairs and Qiuming Cheng was the Secretary-General. The IAMG2007 Proceedings were published in book-form (ISBN: 987-0-9734220/3-0) and on CD (available from IAMG Office in Kingston, Ontario). Three well attended short courses were offered free of charge on the last day of the conference.

Also last August, IAMG Councilor Maria João Pereira organized an IAMG symposium on "Geostatistics for Environmental Applications", during the biennial session of the International Statistical Institute in Lisbon, Portugal.

The 2008 IAMG annual meeting will coincide with the 33rd International Geological Congress in Oslo, Norway. Scientific contributions to the programme include the following: "Mathematical Geology" (Richard Sinding-Larsen and Frits Agterberg, coordinators) will be one of the topical symposia at the 33rd IGC and we will co-sponsor sessions on "General Contributions to Geoscience Information" (Ian Jackson, John Broome, Udo Strauss, organizers).

Felix Gradstein is our special IGC Councilor. The regular quadrennial IAMG General Assembly will commence at 16:00 p.m. on Friday, 8 August, 2008 in the newly restored Hoved Gård of the Natural History Museum of the University of Oslo. It will be followed by our 40th Anniversary Banquet. Earlier in 2008, we will co-sponsor CoDaWork'08, the 3rd Compositional Data Analysis Workshop to be held in Girona, Spain, 27-30 May 2008.

During the past two years we have significantly expanded our Student Affairs program. In 2007, six student mathematical geoscience research grants of US \$ 2000 each were

awarded as well as travel grants to students presenting papers or posters at IAMG2007. Additionally, we support five student chapters at universities in Canada, China, Germany, and the USA.

We maintain a system of awards and honors. At the 33rd IGC in Oslo, lectures will be held by our next William Krumbein Medalist, the Cedric Griffiths Teaching Award winner and the Georges Matheron Lecturer. Highlights of the past year include the selection of:

- Hilmar von Eynatten as the 2007 Chayes Prize winner
- Raymond Tolosana-Delgado as the 2007 Vistelius Award Recipient
- Wynand Kleingeld as the 2007 Matheron Lecturer
- Donald Myers as the 2008 IAMG Distinguished Lecturer
- Frank Curriero & Jean-Stephane Bailly, Pascal Monestiez and Philippe Lagacherie as co-winners of the 2006 Mathematical Geology Best Paper Award
- Tomislav Hengl as the winner of the 2006 Computers & Geosciences Best Paper Award
- Stanford University as the site of the annual IAMG meeting in 2010 with Jef Caers, Conference Chair.

Challenges for the coming year are to steer the IAMG with emphasis on increasing its membership and fostering new applications and collaborations. We are encouraging joint meetings with IUGS commissions at our annual conferences. Recently, IAMG President Frits Agterberg and Treasurer Gina Ross have accepted the invitation to participate in the Global Launch Event of the International Year of Planet Earth (IYPE) to be held in Paris, 12-13 February, 2008. Several IAMG members are already actively involved with IYPE; we are looking at ways to expand our co-operation. Other proposals for joint meetings during 2008 and later would be welcomed.

2007 has been an important year in IAMG history. All three of our international journals now have long-term contracts with automatic extensions, and we have three new Editors-in-Chief. Roussos Dimitrakopoulos (*Mathematical Geology* renamed *Mathematical Geosciences* from January 2008) is based at McGill University in Montreal, Quebec; Eric Grunsky (*Computers & Geosciences*) at the Geological Survey of Canada in Ottawa, Ontario; and Jerry Jensen (*Natural Resources Research*) at the University of Calgary, Alberta. There are new Editorial Boards as well. The functions of Associate Editors have changed and keep on changing substantially in that AEs are assuming greater responsibility in choice of reviewers and evaluation of reviewers' comments.

Scientific publication remains the primary function of IAMG and continues to account for much of our income. Other developments in this field include the Editors' retreat (in Val Morin, Quebec) chaired by Mike Hohn of our Publications Committee; Harald Poelchau became our website editor, in addition to continuing to edit our newsletter. *Computers & Geosciences* published by Elsevier (Amsterdam) is very successful and attracts more good papers than it can publish. A new long-term contract with Springer was signed for publication of *Mathematical Geosciences*; its production was moved from New York City to Heidelberg. This move has helped to end numerous problems faced during the preceding two years. Both *Mathematical Geosciences* and *Natural Resources Research*, which were behind schedule in the past, are now published on time. Jo Anne

DeGraffenreid has edited the new IAMG monograph “Statistical Methods for Estimating Petroleum Resources” by P.J. Lee.

The IAMG strategic plan 2007-2010 that was adopted by our membership at IAMG2006 in Liège, Belgium, is now being implemented. IAMG membership is growing, mainly because of significant membership increases in China and relatively many new student members. A new membership campaign was commenced in the fall of 2007 with the help of Councilor Ian Jackson at the British Geological Survey. It is pointed out that annual IAMG membership dues remain US \$ 10.00 only (US \$ 5.00 for student members). Pamela Lyons and her staff at the IAMG Office in Kingston, Ontario, have been very helpful in maintaining the member database and in looking after the needs of our membership. It is now possible to renew membership using our website that continues to undergo further re-development.

In 2006, the IAMG Council had decided to substantially increase our program of grants to students in the field of mathematical geosciences and geoinformatics. A modest student research grant program initiated in the early 2000s had proven to be very successful. In recent years IAMG annual income has increased substantially due to royalty payments and returns from investments. We decided to increase student grants from US \$ 5,000 to about \$ 25,000 annually, not only for student research and travel, but also to establish and subsidize new student chapters. Implementation of this program is continuing. New guidelines for student affairs were developed in 2007 by Helmut Schaeben and the Student Affairs Committee.

In 2007 we were fortunate to have Vera Pawlowsky-Glahn as IAMG Distinguished Lecturer. Her lecturing tours took place in Europe including Russia, both North and South America and in Asia. We continue to have an excellent award program with the Awards Committee chaired by Steve Henley currently in the process of selecting our award winners for 2008. The 2008 Georges Matheron Lecturer will be selected by a special committee chaired by IAMG Vice President Nick Fisher.

Daniel Merriam, founder of two of our journals (*Mathematical Geosciences* and *Computers & Geosciences*) and past Editor-in-Chief of all three journals has become the official IAMG Historian. During 2007, the IAMG archive was moved from Lawrence, Kansas, to the IAMG Office in Kingston, Ontario.

In August 2008, IAMG governance will be taken over by a new Executive and Council. In 2007, a Nominating Commission consisting of Graeme Bonham-Carter (Canada), Heinz Burger (Germany), Ian Jackson (UK), Ricardo Olea (USA), and Yongzhang Zhou (China), with Frits Agterberg (Canada) as non-voting Chair, selected the candidates for our spring 2008 election. Vera Pawlowsky-Glahn has already been selected to serve as the next IAMG President from 2008 to 2012.

The IAMG Event Schedule for 2008 and 2009 is attached as a separate file.