

INTERNATIONAL ASSOCIATION FOR MATHEMATICAL GEOSCIENCES

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December 22, 2010

IUGS Secretariat
Attn: Anne Liinamaa-Dehls
Geological Survey of Norway
N-7491 Trondheim
NORWAY

Dear Madam,

Please find enclosed the International Association for Mathematical Geosciences Annual Report to IUGS for 2010.

Highlights of our 2010 activities were: the organization of our Annual Meeting held in Budapest, Hungary, on August 29th – September 2nd, 2010; the expansion of our effort to support student chapters and student research to promote Mathematical Geology among the younger generation. The IAMG is now planning its 2011 Annual Meeting, which will be held in Salzburg, Austria, 5-9 September 2011.

We are requesting a grant of \$5,000 from the IUGS to support travel expenses of scientists from various countries to attend IAMG sponsored conferences in 2011. The grant you kindly provided to the IAMG in 2010 was used to support student travel expenses and student research, as described in the attached report.

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

Sincerely,

Daniel Tetzlaff
Secretary General, IAMG

cc.: IAMG Council

International Union of Geological Sciences

ANNUAL REPORT OF AFFILIATED ORGANIZATION

International Association for Mathematical Geosciences

for the year 2010

The IAMG (International Association for Mathematical Geosciences) 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. In addition to the IUGS, we are also affiliated with the International Statistical Institute (ISI). We maintain a website (www.iamg.org) and, publish the IAMG quarterly Newsletter that also is on our website.

Although we are a relatively small organization with slightly over 500 members, our membership is truly international and we publish three well-known international scientific journals: *Computers & Geosciences* with Elsevier as publisher, and *Mathematical Geosciences* and *Natural Resources Research* with Springer. All three are highly recognized among quantitative geoscientists throughout the world. The IAMG President is Dr. Vera Pawlowsky-Glahn, and the Vice President is Dr. Qiuming Cheng.

Scientific publication remains a primary function of IAMG and continues to account for much of our income. In addition to our three main journals mentioned above, we also publish a monograph series with Oxford University Press which currently counts eight titles and a ninth one about to be published, a series of Studies for Students, which presently consists of five titles, proceedings of all our conferences, in addition to the aforementioned Newsletter.

The IAMG organizes an annual conference. This year's conference was held at the Eötvös Lóránd University in Budapest, Hungary, from August 29th to September 2nd. Over 110 papers and posters were presented in several sessions covering, among others, the following subjects:

- Resource estimation and assessment
- Geomathematics in environmental sciences
- Geotechnics, engineering geology
- Theoretical geomathematical problems

Several keynote lectures were presented focused on the general theme of the role of geomathematics in the solution of environmental problems related to the geosciences. There was also a student paper contest session which highlighted our continuing commitment to students and young researchers.

The IAMG is planning the following major meetings for the next two years:

- 2011: Salzburg, Austria, IAMG Annual Meeting (September 5-9, Robert Marschallinger, chief organizer)
- 2011: International Statistical Institute, Dublin, Ireland (August 21-26)
- 2012: Durban, South Africa, IAMG-sponsored Invited Paper Meeting during the 57th Session of the International Statistical Institute (Eric Grunsky, Organizer)

- 2012: Brisbane, Australia, participation in the International Geological Congress (August 2-10)

The IAMG has sponsored other conferences and courses related to its field in 2010:

- CoDaCourse (Course on Compositional Data Analysis), 5-9 July 2010, Barcelona, Spain
- Quantitative image analysis of minerals and rocks, 28-29 August 2010, Eötvös Lóránd University, Budapest, Hungary
- International School of Fluid Geochemistry, 21-24 September 2010, Abbadia San Salvatore, Siena, Italy

and is planning to sponsor the following course and workshop next year:

- CoDaWork (Compositional Data Workshop), short course on 9-10 May 2011, followed by a workshop on 10-13 May 2011, Girona, Spain

Our effort to expand student chapters around the world was continued this year. Student chapters provide a local venue for young students to organize their own activities to promote study and research in mathematical methods in the earth sciences. At this time there are ten IAMG student chapters either approved or being processed for approval:

1. China University of Geosciences, Wuhan, China
2. Southern Illinois University, Carbondale, Illinois, USA
3. University of Alberta, Edmonton, Alberta, Canada
4. Technische Universität Bergakademie Freiberg, Germany
5. Stanford University, Stanford, CA, USA
6. Sun Yat-Sen University, Guangzhou City, China
7. University of Colorado at Boulder, Colorado, USA
8. ENSG-Nancy University, Nancy, France
9. University of Twente, Enschede, The Netherlands
10. University of Szeged, Hungary

The IAMG provides student travel grants and student research grants to encourage students to participate in IAMG conference as well as in other conferences sponsored by the IAMG. During this year, the IAMG provided travel grants to students from Italy and Germany and one research grant to a student from the US. These were made possible in part by the funding received from the IUGS for this year.

The IAMG also provides a number of awards to outstanding scientists. Not all awards are given yearly. The Krumbein Medal is the highest honor given by the association and is awarded to senior scientists for career achievement. This year's recipient was Dr. Lawrence Drew. The John Cedric Griffiths Teaching Award is presented to honor outstanding teaching in Geomathematics. It was awarded this year to Dr. Ana Fernandez Militino.

We also have a Distinguished Lecturer series. The current Distinguished Lecturer is Roussos Dimitrakopoulos of McGill University. Dr. Dimitrakopoulos is in the second of two years of tenure as IAMG Distinguished Lecturer. He has given numerous lectures throughout the world as well as several teleconferences.

The IAMG also holds a lecture series in honor of Georges Matheron, a leader in the field of geostatistics. This year Dr. Donald Singer is presenting a lecture on: *Solving the wrong resource assessment and exploration problems precisely*.

During 2010 the IAMG has become a Scientific International Partner of the newly established Planet Earth Institute.

Our website (www.iamg.org) includes more details of our organization, events, membership, and publications, to keep members and others informed about our activities. Please feel free to consult it for more information.

Dr. Daniel Tetzlaff

Secretary General, IAMG