

# I. A. M. G. NEWS LETTER



## President's Prize Awarded

The IAMG President's Prize is awarded for "an original and outstanding contribution [through publication] to the application of mathematics to the geological sciences." The Prize is intended to encourage the use of geomathematics by scientists at the beginning of their professional careers, so a condition of the award is that the recipient shall be no older than 35 years of age at the time of nomination. Established in 1980, the first President's Prize has been awarded to **John M. Cubitt** of Poroperm Laboratories (UK). In addition to numerous publications in Mathematical Geology and other journals, John now serves as Editor-in-Chief of Computers & Geosciences. In addition to a certificate, a book will be presented to John by the Association.

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## '80 C&G Best Paper Award

The 1980 annual award for the best paper published in Computers & Geosciences has been given to **Richard G. Craig** of Kent State University (USA). The winning paper appeared in Vol. 6, No. 2, and was titled "A Computer Program for the Simulation of Landform Erosion." Richard will receive a year's free subscription to C&G in addition to his presentation certificate.

Selection of the Best Paper Award for Mathematical Geology has been delayed because Selection Committee Chairman **John Tipper** has not yet received all issues of the Journal. It seems they are stacked on a dock in Dublin awaiting settlement of the Irish postal strike.

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## Suggestions and Nominations Wanted

Suggestions are needed for the 1981 Best Paper awards in C&G and Mathematical Geology, as well as nominations for the 1982 Krumbein Medal and President's Prize. The Krumbein Medal is, of course, the highest honor the Association can bestow. Nominees are expected to have made outstanding original contributions to mathematical geology, to its teaching and dissemination, and/or to the development and

well-being of the International Association for Mathematical Geology.

Please send your recommendations to the chairmen of the respective selection committees:

Krumbein Medal for 1981 — **Douglas M. Hawkins**, National Institute for Mathematical Sciences, P.O. Box 395, Pretoria 0001, Republic of South Africa.

President's Prize for 1982 — **Daniel F. Merriam**, Dept. of Geology, Wichita State University, Wichita, KS 67208, USA.

MATHEMATICAL GEOLOGY Best Paper in 1981 — **William B. Wadsworth**, Dept. of Geology, Whittier College, Whittier, CA 90608, USA.

COMPUTERS & GEOSCIENCES Best Paper in 1981 — **Geoffrey W. Hill**, CSIRO, Institute of Earth Resources, P.O. Box 124, Port Melbourne, Victoria 3207, Australia.

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## Meetings Forthcoming

ARPEL—Latin American Council of State Oil Companies for Mutual Support, 43rd Congress — Nov. 9-13, 1981, Rio de Janeiro. Contact **Reneu R. Da Silva**, PETROBRAS, Avenida Chile 65, Sala 1513, Rio de Janeiro, R.J. 20000, Brasil.

Computer Methods in Resource Analysis (Geological Information Group Meeting) — Nov. 24-26, 1981, London. Contact **M. F. Horder**, IGS, 154 Clerkenwell Road, London EC1R 5DV, England.

Geostatistical Ore Reserve Estimation — Nov. 30 - Dec. 4, 1981, Singapore. Course presented by Mineral Exploration Research Institute and taught by Michel David. Registration fee \$US 750. Contact **Michel David**, IREM-MERI, C.P. 6079 - Succursale "A", Montreal, Quebec H3C 3A1, Canada.



**(...Forthcoming)**

Data Management in Geoscience — Dec. 7-12, 1981, Ouro Preto, Brasil. Contact CODATA/UNESCO Training Course, c/o Geology Dept., Federal University of Ouro Preto, P.O. Box 50, 35400 Ouro Preto, MG, Brasil.

COGEODATA Conference — Use of computers for oil and mineral exploration and assessment in South America, Dec. 14-17, 1981, Rio de Janeiro. Contact **Hernani Chavez**, PETROBRAS-CENPES-DIVEX, Quadra 7 - Ilha do Fundao, Rio de Janeiro, G.B. 21910, Brasil.

1st Annual Conference on the Management, Analysis, and Display of Geoscience Data — Jan. 27-29, 1982, Golden, Colorado, USA. MGUS (Math. Geologists of the U.S.) forum on theoretical and applied approaches. Sessions on the general topic, database management, computer applications, geostatistics, geomathematics, and computer graphics. Contact **R. B. McCammon**, U.S. Geological Survey, National Center 920, Reston, Virginia 22092, USA.

COMRA 82 — Mar. 31-Apr. 2, 1982, London. An international conference on Computer Methods for Resource Assessment, organized by the Geological Information Group of the Geological Society of London. Contact **M. F. Horder**, Geological Society of London, Burlington House, Piccadilly, London W1V 0JU, England.

Computer Applications to Exploration — May 10-12, 1982, Keystone, Colorado, USA. Contact **David Matuszak**, Amoco Production Co., P.O. Box 591, Tulsa, Oklahoma 74102, USA.

IAS Eleventh International Congress on Sedimentology — Aug. 22-28, 1982, Hamilton, Ontario, Canada. The IAMG will have three sessions: Statistical Facies Analysis, Petrography—The Role of Image Analysis, Numerical Methods in Sedimentology. Contact **D. F. Merriam**, Dept. Geology, Wichita State University, Wichita, Kansas 67208, USA.

11th Geochautauqua — New developments in coal geology quantification, Urbana, Illinois, USA, Oct. 1-2, 1982. Will cover exploration (sampling, reserve estimation, geologic data), production optimization, and systems concepts. Cosponsored by MGUS and the IAMG. Contact **C. John Mann**, Dept. of Geology, University of Illinois, 1301 West Green St., Urbana, Illinois 61801, USA.

8th International CODATA Conference — Oct. 3-7, 1982, Kozubnik, Poland. "A significant part of the conference will be devoted to data

aspects of world raw materials resources and their utilization." Contact ICSU/CODATA Secretariat, 51 Boulevard de Montmorency, 75016 Paris, France.

Panel on Mathematical Geology — Chilean Geological Congress, Concepcion, Chile, November, 1982. Contact **L. L. Diaz**, Coordinator, III Congreso Geologico Chileno, Apartado 10, Concepcion, Chile.

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#### **Request to U.S. Geomathematicians**

The U.S. Office of Earth Sciences (OES) solicits suggestions about important national topics that need attention. These suggestions are sent to appropriate units of the National Research Council when related activity is underway. In some cases, a suggestion may result in an independent committee being established to study and report on the topic. For example, a report is currently being prepared on the geological aspects of industrial waste disposal which was a suggested topic. Such a report is usually read by government officials, scientists in the field, and the public. These reports can initiate or influence the federally sponsored programs.

Suggestions should be sent to the Chairman of the Office of Earth Sciences, National Research Council, National Academy of Sciences Building, 2101 Constitution Avenue, NW, Washington, DC 20418. The statement should include sufficient information for the advisory board to evaluate the national significance of the topic.

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#### **IAMG Membership**

The Association has, at last count, 536 members who pay dues through the Western Treasurer's office. Exactly half of these (268 members) reside in the U.S. The other 268 come from 52 different countries! In order of number of members, the largest of these are Canada (51), Australia (30), England and West Germany (20 each), China (16), France (13), and Brasil (10).

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#### **People on the Move**

**E. H. Timothy Whitten**, IAMG President, has moved from Northwestern University. He is now Vice President for Academic Affairs, Michigan Technological University, Houghton, Michigan 49931 USA.

[cont. p. 5]

(...on the Move)

**D. F. Merriam**, Past-President of the IAMG and former Editor of both Association journals, has moved from Syracuse University. He is now Regent's Professor and Chairman, Department of Geology, Wichita State University, Wichita, Kansas 67208 USA.

**Peter Feldhausen**, IAMG Membership Committee Chairman, has been transferred by NUS; he is now serving as an advisor to the U.S. Department of Energy at their Savannah River plant. His new address is 1115 Residence Drive, Aiken, South Carolina 29801 USA.

**Theodore Bornhorst**, formerly of the University of New Mexico, Albuquerque, is now also at Michigan Technological University in Houghton, Dept. of Geology and Geological Engineering.

**George E. Brethauer**, former U.S. Geological Survey staffer from Denver, is now with Arabian American Oil Company in Dhahran, Saudi Arabia.

**Curt Conley** has left the Kansas Geological Survey in Lawrence for the ski slopes of Colorado, where he joins EXXON in Denver (USA).

**Roland Froidevaux**, formerly of Union Carbide in Grand Junction, Colorado (USA), is now with David S. Robertson & Assoc., Toronto, Canada.

**Steve Henley** is now a director of Mineral Industries Computing Ltd., Bedfordshire, England. His company will distribute G-EXEC, which Steve helped develop while with the Institute of Geological Sciences (UK).

**Fred Lawrence** has left the Suwannee River Water Mgmt. District in White Springs, Florida, and is now with the Kentucky Geological Survey in Lexington, KY (USA).

**William A. Milne-Home** is at the University of West Indies, St. Augustine, Trinidad, where the weather is nothing like that he's left behind at the University of Alberta in Edmonton (Canada).

**Alberto Riccardi** has gone from the Geological Survey of Canada in Ottawa to the Museo de Ciencias Naturales, Div. Paleozoologia Invertebrados, in La Plata, Argentina.

**J. Sumartojo**, formerly of the Department of Geology at Vanderbilt University in Nashville, Tennessee (USA), is now with EXXON in Houston, Texas.

POSITION AVAILABLE

The **Kansas Geological Survey** is seeking a **mathematical geologist** for a permanent, full-time position in its Geologic Research Section. The position carries a faculty-equivalent rank and salary dependent upon qualifications (\$24,000 US minimum). The Geologic Research Section's activities are strongly quantitative and computer-oriented; current research includes interactive petrophysical interpretation, automated cartography, probabilistic resource appraisal, and sampling theory. The successful applicant will be expected to contribute to these activities and to develop, conduct, and publish the results of independent programs of basic and applied quantitative research in the Earth sciences.

The position requires the terminal degree (Ph.D., D.E., D.Sc.) in some area of the Earth sciences, and a strong background and interest in mathematics, statistics, and/or computer science. The ability to write well is critical. Industrial or academic experience in the application of quantitative methods to the solution of problems in the Earth sciences is required. The Kansas Geological Survey offers

- Intellectual freedom and research support in a university environment without teaching obligations.
- Fully funded research opportunities in one of the world's leading institutions for studies in quantitative Earth science.
- Excellent research facilities, including a new inhouse computer system with extensive graphics capabilities.
- Encouragement and support of participation in national and international scientific affairs.
- Liberal vacation and leave policies, medical and life insurance options, TIAA-CREF retirement, and all faculty privileges at The University of Kansas.

For more information on the position, the Kansas Geological Survey, The University of Kansas, and the community of Lawrence, Kansas, contact Lila M. Watkins, Personnel Manager, Kansas Geological Survey, 1930 Avenue "A", Campus West, Lawrence, Kansas 66044, USA. Telephone 913-864-3965. Telex KULIBR 9107496571.

## Geocandid-Camera at Canadian Geochautauqua

Pictured below (left) is the genial host of the 10th Geochautauqua, Dr. F. P. Agterberg of the Geological Survey of Canada, Ottawa. Theme of the meeting, cosponsored by the Geological Survey of Canada, IAMG, International Geological Correlation Programme, and Syracuse University, was "Use of Computers in Mineral-Resources Evaluation." Fritz is joined by John C. Griffiths, Penn State (USA) Professor Emeritus whose name is not unknown in the geomathematical world. Peering over their shoulders is C. F. Chung of the Canadian Survey, author of one of two interactive graphic computer programs featured in the excellent three-day workshop which preceded the Geochautauqua. The gentlemen have every reason to celebrate, for the festivity marks the end of a very successful and well-attended meeting. A full report of activities will be included in the next issue of the News Letter.



## News From China

Richard B. McCammon, IAMG Western Treasurer, met with the newly organized Specialized Committee for Mathematical Geology of the Geological Society of China in Beijing, China, on June 22, 1981, in conjunction with a USGS/UNESCO "Resource Assessment Seminar" for the People's Republic of China. Not surprisingly, 16 members of the Committee now are members of IAMG. A copy of the proceedings of the Second National Conference of Mathematical Geology held earlier in the year was presented to McCammon and a fruitful discussion took place on the future of mathematical geology and on some of the current research problems. With something like 300+ active members, it is clear that mathematical geology is alive and thriving in the PRC.

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## Committee Report

The Membership Committee under Chairman Peter Feldhausen has been actively recruiting new mathematical geologists and other interested persons. In the USA, Peter has been working with the oceanographic community and Greg Baecher (MIT) has been fostering closer ties with civil engineers who deal with geotechnical reliability problems. Among our most successful recruiters is Li Yuwei of the Institute of Mineral Deposits, Chinese Academy of Geological Sciences. Other committee members are also promoting the IAMG at local and international meetings: Vaclav Nemeč convened a session on "Mathematical Methods in Geology" at the Mining Příbram in Czechoslovakia and Reneu da Silva will represent the IAMG at the 43rd Congress of ARPEL (Latin-American Council of State Oil Companies for Mutual Support) which will meet in Rio de Janeiro in November.

The IAMG Membership Committee will meet during the 11th International Congress on Sedimentology in Hamilton, Ontario, Canada, August 22-28, 1982. Among the topics to be discussed are recruitment of institutional members; student membership; emeritus membership for retiring geologists; and improved methods of communication.



NÃO HÁ NADA DE ERRADO COM O COMPUTADOR.  
O PROBLEMA É QUE ELE NÃO GOSTA DE VOCE!  
JORNAL DO COMERCIO

## A Post Script from the IAMG President

"P.S. ...please draw attention to the fact that annual reports and accounts must be submitted by IAMG regional groups—also that more regional groups would be welcome."

(...President)

On the subject of Regional Groups, President Whitten offers the following advice in another letter that crossed the News Letter Editor's desk: "As you know, there are excellent provisions for 'regional organizations' within IAMG—see Journal of IAMG 1981, vol. 13, page 258. Indeed IAMG provides considerable help (including some financial aid) to regional organizations; Mathematical Geologists of the United States is one such organization with analogs in Canada, U.K., etc., etc. Our By Laws (on the page cited above) would guide you on most items...and there [are] precedents for it having liaison with the local geological society and/or national committee for geology." [Late-breaking news indicates that we should soon have a new South African regional group, "of some strength"!]

One last bit of correspondence from the Prez: "Last year the note in the News Letter asking for volunteers for committee duty elicited a dozen or so offers, most of whom I have used in naming committees this fall...could you run a similar request?"

**PLEASE VOLUNTEER FOR DUTY ON AN IAMG COMMITTEE:** Krumbein Medal, President's Prize, and Best-Paper Award Committees; Finance Committee; Education Committee, Projects Committee, Committee on Computer-Aided Instruction, Membership Committee.

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#### Mining Příbram '81

We are fortunate to have a first-hand report on the International Conference "Mathematical Methods in Geology" at the 20th International Mining Příbram in Science and Technique (Hornická Příbram ve Vědě a Technice), October 12-16, 1981, in Příbram, CSSR. Prof. Dr. W. Skala, Institut für Geologie, Freie Universität Berlin writes:

"For the last ten years Dr. Vaclav Nemeč, an internationally respected member of the IAMG, has prepared the section Mathematical Geology as part of the congresses at the Mining Příbram in Science and Technique. This year the proceedings of the congress contains over 80 contributions, of which approximately 40 were held orally. The proceedings contains publications in Russian, English, German, and Czechoslovakian. A brochure with English abstracts of the papers was published separately and furnishes a good overview of the individual contributions.

"Corresponding to the goal of the congress, the contributions are concerned almost exclusively with the application of mathematical methods in mining and economic geology. All published contributions therefore have been grouped according to five themes: A – searching for ore deposits, B – exploration, C – estimation, D – exploitation, and E – other problems. The contributions give a good overview of mathematical geology in the socialistic countries. Since the reviewer was the only participant from the west, it would be desirable if at the next congress, which is scheduled to take place in two years, the number of participants from the west could be greater. The high level of research and the broad significance that the research in mathematical geology has reached in the east makes it imperative to become familiar with this research. To this end, the Mining Příbram in Science and Technique offers an excellent opportunity. Since the Soviet colleagues lecture mainly in Russian and often do not use slides, simultaneous translation into English is planned for the next congress. W. Skala"

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#### Life of the Party

The first person who recognizes the eminent, globe-circling geoscientist pictured above and correctly identifies him to the News Letter Editor will receive a complete set of the Kansas Geological Survey's Series on Spatial Analysis published to date—Nos. 1-5. Another complete set will go to the person who responds correctly and is geographically farthest from the office of the News Letter Editor. Deadline is December 31, 1981. Winners will be announced. And here's a hint: In addition to the lampshade, this man is sporting a magnificent red silk tie. Get those cards and letters in the mail today!

C U T \_ O U T \_ A N D \_ R E T U R N

ELECTION OF OFFICERS FOR MGUS

The following slate of candidates for the **Mathematical Geologists of the United States** (MGUS) has been prepared in response to a call for nominations in IAMG News Letter No. 26. All IAMG members residing in the U.S. are eligible to vote, regardless of nationality. Ballots should be returned BEFORE DECEMBER 15, 1981, to Richard B. McCammon, Office of the Western Treasurer, U.S. Geological Survey, National Center 920, Reston, VA 22092. Ballots will be counted by the Executive Committee before the annual meeting of MGUS to be held January 27-29, 1982, in Golden, Colorado, when results will be announced. Newly elected officers will assume their offices at the annual meeting and serve until the 1984 annual meeting.

Ballot - Mathematical Geologists of the United States

Officers, 1982-1984

President:	<input type="checkbox"/> James B. Campbell, Jr.	<input type="checkbox"/> _____ Write-in
Vice President:	<input type="checkbox"/> Douglas M. Lorenz	<input type="checkbox"/> _____ Write-in
Secretary:	<input type="checkbox"/> Thomas A. Jones	<input type="checkbox"/> _____ Write-in
Treasurer:	<input type="checkbox"/> John H. Schuenemeyer	<input type="checkbox"/> _____ Write-in

Return Before December 15, 1981

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