Frontiers of Mathematical Geosciences: new approaches to understand the natural world

There is a need for increasing the understanding of how the natural world works and only the synergy between classical geosciences and mathematics can provide the methodological tools to tackle the complex problems in modern geosciences. New frontiers in the knowledge of the natural word are the common tasks of geoscientists and mathematicians.

IAMG Madrid 2013 will provide a platform for key specialists and researchers in Geosciences to share their strategic vision of the current state of Mathematical Geosciences, and the direction this field may take in the upcoming years.

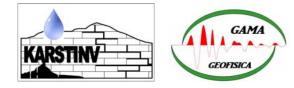
The conference is organized by the Spanish Geological Survey and will be held in the Faculty of Mathematics of the Complutense University of Madrid

Contact us:

IAMG Madrid 2013 c/o Carolina Guardiola Albert Ríos Rosas, 23 Instituto Geológico y Minero de España 28003 Madrid - Spain Phone: + 34 91 349 5829 Fax: + 34 91 349 5929 Email: c.guardiola@igme.es e.pardo@igme.es













FUNDACIÓN COMPLUTENSE

Workshops

- · Principles of Geological heterogeneity with applications
- Mathematical Petrophysics workshop
- Exploration Geophysics improvement by the fractal analysis and Neural network
- An Introduction to compositional Data Analysis



15th ANNUAL CONFERENCE OF THE INTERNATIONAL ASSOCIATION FOR MATHEMATICAL GEOSCIENCES

MADRID, 2 ~ 6 SEPTEMBER 2013

Conference Theme Frontiers of Mathematical Geosciences: New approaches to understand the natural World

http://www.igme.es/internet/iamg2013/



Symposium Topics

- · Advances in classical statistics relevant to the Geosciences
- Frontier Geostatistics
- Compositional Data Analysis Applied to Geochemistry
- Data assimilation in Geosciences
- Machine learning in Geoscience applications
- Spatiotemporal analysis: structural complexity and extreme behaviour
- · Parameterization of soil systems at different scales
- Fractals, Chaos and Complexity in the Earth System
- Remote Sensing a Changing World
- Modern sensor data (and their processing) in Engineering Geology
- Geographic Information Systems/Geoinformatics
- Quantitative methods in Geomorphology and Land Surface $\ensuremath{\mathsf{Processes}}$
- Deformation modeling, Geodynamics and natural hazards
- Hydrogeology: From process understanding to improved predictions
- Quantitative hydrology: working across scientific disciplines and time-space scales
- Quantitative Environmental Geology
- Modeling of energy resources
- New Developments in Oil and Gas Discovery Modeling
- Open Session on Mathematics of Oil Recovery (OSMOR)
- Geostatistical priors in inversion of geophysical and engineering data
- Mineral and energy resources for planet Earth: evaluation, extraction and optimal management
- Mathematical Petrophysics: Theory and Applications
- Recent advances in Quantitative Methods applied to Stratigraphy and Paleontology
- · Geo-mathematical models of folds and folding
- Mathematical Geosciences and Planetary Geology
- Mathematics of Planet Earth
- Geoscience Data Models for Practical Interoperability

Registration

REGISTRATION FEES	Before May 15th 2013	After May 15th 2013	
IAMG Member ⁽¹⁾	325 €	385 €	
IAMG non-member	390 €	450 €	
Students ⁽²⁾ and retired members ⁽¹⁾	200 €	225 €	
Student ⁽²⁾ & retired non-member	250 €	275 €	
Accompanying person's fee	100 €	150 €	

WORKSHOP AND SHORT COURSES FEES	½ day	1 day
Non-student member ⁽¹⁾	90 €	180 €
Student ⁽²⁾ member ⁽¹⁾	45 €	90 €
Non-student non-member	160 €	320 €
Student ⁽²⁾ non-member	80 €	160 €

- (1) Active IAMG membership, please provide membership details on site
- (2) Please provide membership student/enrolment

Registration fee includes:

- Welcome reception-Attendance to the conference
- Conference bag with book or USB of extended abstracts
- Extended abstracts publication as part of the series "Lectures Notes in Earth System Sciences" from Springer
- Coffee breaks
- Conference dinner

Any individual interested in the activities of the IAMG organization may become a member. If you wish to join, click on the following link to obtain more information: www.iamgmembers.org

Registration is now open. Downloadable registration form and instructions are available in <u>http://www.igme.es/internet/iamg2013/regis.htm</u>

Organizing Committee

Eulogio Pardo IGúzquiza (Chairman) Carolina Guardiola Albert (Secretary) Javier Heredia Díaz Luis Moreno Merino Juan José Durán Valsero

Abstract Submission

The official language of IAMG 2013 is English. Abstracts must have a minimum of 200 words and a maximum of 300 words. Extended abstracts must be four pages long and must follow a Word or Latex template. All contributions will be subject to peer-reviewing. Authors may decide to submit their contributions with a preference either for oral presentation or for poster presentation. Contributions need to be delivered digitally via e-mail (<u>e.pardo@igme.es</u>). Extended abstracts will be published in the series "Lectures Notes in Earth System Sciences" from Springer.

Important Dates

February 1, 2013 Abstract Submission deadline

March 1, 2013 Notifications of abstract acceptance/rejection. Extended abstract submission starts

April 1, 2013 Extended abstracts submission ends

May 1, 2013 Revised extended abstracts returned to authors

May 15, 2013 Last Day for reduced registration fee

May 20, 2013 Submission of final versions of extended abstracts ends