

March 2009 Newsletter of the AGU Near-Surface Focus Group

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Recent announcements of interest to the NS community (conferences, academic positions, graduate student opportunities etc.) can be found at the AGU NS-Focus Group Web Page: <http://nsg.agu.org>

AGU NS Membership as of January 2009:

Primary affiliation: 620 members; Secondary: 1754 members

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## 1. AGU 2009 Joint Assembly

The 2009 AGU Joint Assembly will be held May 24-27 in Toronto, Canada. Information about the meeting can be found at <http://www.agu.org/meetings/ja09>.

The Near Surface Focus Group plans to hold a lunch and a social gathering with Hydrogeophysics. Dates and times of these events will be announced in upcoming newsletters.

NS Focus Group & Hydrogeophysics Sessions:

- NS01: Near Surface Geophysics General Contributions
  - NS03: Near-Surface Geophysics - Back to Basics: Inversion of Electrical Resistivity Imaging Data
  - NS04: Advancing the Use of Electrical Resistivity and Electromagnetic Methods for Near-Surface Applications
  - NS05: Near Surface Geophysics for Applications in Civil Engineering
  - H15: Hydrogeophysics: The State of the Science
  - H34: Contributions of Geophysical Measurements to Hydrogeological Models
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## 2. NS Logo competition

As the NS FG matures it would be nice to have a logo, so we are having a NS FG logo competition that was kicked off at the Fall Meeting luncheon in San Francisco!

A logo will serve several functions; currently we have a banner with our name. A new logo could create a strong identity of our focus group that is recognizable through promotion in many formats such as online, signs, letterhead, and awards. It should be simple in form and color to be versatile, and age well over time. Note our proper name is the AGU Near Surface Focus Group - AGU NS FG. We can use the words, acronyms or a combination.

Go to [http://www.agu.org/focus\\_group/nsg/logo.html](http://www.agu.org/focus_group/nsg/logo.html) to see what has been submitted. Submit your logo to Louise Pellerin ([pellerin@ak.net](mailto:pellerin@ak.net)) anytime through April, at which time we will call for a vote. However you can vote for none of the above. Given a winner, the new logo will be announced at the NS luncheon at the Joint Assembly in Toronto on May 26th.

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### 3. NS Representative on the 2010 AGU Meeting of the Americas

We are very pleased to announce that Juan Lorenzo (<http://www.geol.lsu.edu/facultyprofiles/juanprofilenew.html>) has agreed to serve as the NS Representative on the 2010 Joint Assembly/Meeting of the Americas Technical Program Committee, Foz do Iguassu, Brazil, 08-13 August 2010 (<http://www.agu.org/meetings/ja10/>). Juan is reflection and refraction seismologist who studies the tectonics of continental margins using shallow-earth seismology. Although the meeting is still over a year away, it is not too soon to start thinking about how the unique location of this 2010 meeting can be used to foster collaborations in near surface geophysics across the Americas. We encourage anyone with interesting ideas on how to take advantage of this South American meeting location in support of NS activities to contact Juan ([gllore@lsu.edu](mailto:gllore@lsu.edu))

Thanks Juan for agreeing to serve in this important position on behalf of the focus group!

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### 4. Environmental and Engineering Geophysical Society News

#### 4.1 SAGEEP 2009 in Fort Worth, Texas, March 29-April 2

Registration is now open for the 22nd Annual Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP), to be held March 29 - April 2, 2009 at The Worthington, a Renaissance Hotel in downtown Fort Worth. More information is available at <http://www.eegs.org/sageep/index.html>. A detailed technical program listing can be found at <http://www.eegs.org/sageep/technical.html>. The Technical Program, Short Courses and EEGU sessions qualify for PDH credits for geoscientists & engineers registered in Texas.

You can register online for the conference at <https://www1319.oemgrp.com/wmrden/sageep/sageepregister.php>. You can also fax or mail your registration form, which is available from the conference web site. Early Bird conference rates apply until March 9. Make your hotel reservation by March 6 to receive the special conference rate. Reserve your room at <http://cwp.marriott.com/dfwdt/sageep/>.

#### 4.2 Environmental and Engineering Geophysical University at SAGEEP

EEGS is conducting "Environmental and Engineering Geophysical University" (EEGU) sessions at SAGEEP 2009 in Fort Worth, Texas, from March 30 to April 1. EEGU@SAGEEP2009 consists of three days of interactive, classroom-style instruction concurrent with the regular SAGEEP technical sessions. EEGU@SAGEEP2009 is an educational effort primarily intended for managers, students, educators, regulators, engineers, and consultants, among others. EEGS offers single-day registrations at reduced rates to first-time, non-

presenting attendees (EEGU registration will NOT include admittance to the Technical Sessions). The U. S. Department of Energy is providing financial support for EEGU instruction, which also qualifies for professional development hour credit in many states.

Day 1 (Monday, March 30) is an overview day led by Phil Sirles of Zonge Engineering; he will discuss "What is Environmental Geophysics" and "What Can Geophysics Do for You?". Day 2 (Tuesday, March 31) is "Water" day; Greg Baker (University of Tennessee) will lead discussions on geophysics as applied to contaminant and water resource studies. Day 3 (Wednesday, April 1) is "Engineering" day; Mark Dunscomb of Schnabel Engineering will lead discussions on geophysics as applied in civil and geotechnical engineering. There will be daily guided tours of the exhibit hall and distribution of Certificates of Attendance on request. EEGU attendees are eligible to attend all the SAGEEP social functions at the regular attendee cost.

EEGU space is limited, and registration is first-come, first-served. Attendees can register online through the SAGEEP website at [www.eegs.org/sageep/index.html](http://www.eegs.org/sageep/index.html) . Contact Jeffrey G. Paine, EEGU coordinator ([jeff.paine@beg.utexas.edu](mailto:jeff.paine@beg.utexas.edu)), for more information.

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#### 5. SEG 2009 Houston, Texas, 29-30 October - Call for Abstracts

The Near Surface Geophysics Section would like to invite you to submit an Expanded Abstract for oral or poster presentation at the 2009 SEG International Exposition and 79th Annual Meeting in Houston, Texas, 29-30 October, 2009. The abstract submission system opens on 11 March 2009 and the deadline is 8 April 2009. Please visit the website <http://abstracts.seg.org/> for all abstract submission details. For questions or suggestions please do not hesitate to email Jan van der Kruk ([j.van.der.kruk@fz-juelich.de](mailto:j.van.der.kruk@fz-juelich.de)).

Contributions from all Near Surface and Environmental Geophysics disciplines and from all parts of the world are desired. We encourage paper submissions which emphasize near surface geophysics applied to groundwater resource evaluation, mine dewatering, environmental characterization, engineering evaluation, seismic and geologic hazards assessment, as well as advancements in borehole, surface and airborne geophysical technologies and processing for near surface applications.

In addition to the Near Surface Geophysics (NSG) technical sessions, there will be a Post-Convention workshop on Near Surface Seismology and Ground Penetrating Radar, organized by Rick Miller and John Bradford.

Students are encouraged to apply for one of the multiple NSGS \$500 travel grants to attend SEG 2008. See <http://nsgs.seg.org/travelg.htm> for details. If you are not a member of the SEG-NSG Section, please consider joining (<http://nsgs.seg.org/join.htm> ).

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#### 6. NS electromagnetic induction session at 11th IAGA Scientific Assembly

Dear colleagues, we would like to draw your attention to session I04 entitled "Near surface and environmental studies using electromagnetic induction" we are organizing for the 11th IAGA Scientific Assembly (23-30 August 2009 in

Sopron, Hungary)

[http://www.iaga2009sopron.hu/scientific\\_programme.html#div\\_i04](http://www.iaga2009sopron.hu/scientific_programme.html#div_i04) .

Deadlines: Application for grant - March 31, 2009; Abstract submission (by post) - March 31, 2009; Abstract submission (online) - April 15, 2009 (will be shifted to April 30th); Decision about grants - April 30, 2009; Acceptance of abstracts - May 15, 2009; Reduced rate registration - May 31, 2009; Exhibition booking - July 1, 2009; Normal rate registration - August 22, 2009

I04. Near surface and environmental studies using electromagnetic induction  
With the development of new technologies, new instruments, and improved data-processing, electromagnetic methods are able to image shallow structures with applications to many environmental problems. Examples include contaminated unconfined aquifers associated with landfills, landslides, seawater intrusion in coastal areas, the detection of cavities, and the detection of sinkholes and caves in karstic areas. Recently, landmines and unexploded ordnance hazard have appeared as other fields where electromagnetic methods can provide useful applications. We would like to invite contributions related to the issues discussed above, including case studies, the development of novel applications of electromagnetic methods in hydrogeophysics, and the joint inversion of electromagnetic data with other geophysical datasets.

Convener: Gad El-Qady, National Research Institute of Astronomy and Geophysics, Helwan, 11722 Cairo, Egypt. Tel.+2010-1547090, Fax.+202-25563999, e-mail: [gadosan@nriag.sci.eg](mailto:gadosan@nriag.sci.eg) [gadosan@yahoo.com](mailto:gadosan@yahoo.com)

Co-convener: Andre Revil, Colorado School of Mines, USA. [arevil@mines.edu](mailto:arevil@mines.edu)

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#### 7. Student News: Summer of Applied Geophysical Experience (SAGE)

The Summer of Applied Geophysical Experience is a unique educational program designed to introduce students in geophysics and related fields to "hands on" geophysical exploration and research. The program emphasizes both teaching of field methods and research related to a variety of basic and applied problems.

For more information about SAGE 2009 and application material visit [www.sage.lanl.gov](http://www.sage.lanl.gov)

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#### 8. Geophysics Post Doctoral position, Queen's University, Belfast, Ireland

The Groundwater Research Group (GRG) in the School of Planning, Architecture and Civil Engineering at the Queen's University Belfast (QUB) is about to undertake a €1.78M Griffith Geoscience Award study of the Hydrogeology of Irish poorly productive aquifers. We are currently seeking a post-doctoral research fellow to assist in the geophysical characterization of hydrogeological regimes in fractured bedrock aquifers and the overlying unconsolidated deposits. Research completed would form part of a larger programme investigating groundwater flow and contaminant transport in poorly productive bedrock aquifers, with the overall aim of promoting research into Fractured Rock Hydrogeology to an international level at QUB. These positions are funded under the Irish Government's Strategy for Science, Technology and Innovation 2006-2013 as part of the National Development Plan 2007-2013 directed through the Geological Survey of Ireland.

A research fellow with expertise near surface (up to 75m deep) geophysical techniques to spatially characterize the variation in geological and hydrogeological properties of poorly productive bedrock aquifer units (Igneous and metamorphic rock). The researcher would investigate bedrock and overburden geological and geophysical properties in instrumented type catchments with a view to developing three dimensional geological models of the subsurface that may be employed in the development of numerical hydrogeological models. These results would be integrated with available regional geological and downhole geophysical data to establish the influence of structural features in bedrock on groundwater flow regimes.

The candidate should have: A PhD in Geophysics or a related discipline; Post graduate geophysical field work experience in an academic or industrial setting; An ability to work within a multidisciplinary team of hydrogeologists, numerical modelers and geologists; A full clean driving license for undertaking and supervising field work. It is desirable that the candidate have: A general understanding of other disciplines relevant to the research programme, i.e. hydrology, numerical modeling, geophysics, hydrochemistry; Field experience with geoelectric and electromagnetic techniques; Experience/understanding of near-surface and/or borehole geophysical methods; Previous experience working in hard rock terrains; A demonstrated ability in Applied Mathematics.

This position is available for four years . Salary Scale £33,491 /annum rising to £38,829/annum. The position includes a contributory pension scheme and allows for the possibility of completing a placement at an internationally renowned centre of excellence for hydrogeological research to broaden the researcher's expertise. Open to EU and non-EU Nationals. Closing Date: 25th April 2009. It is anticipated that interviews will take place in Early May with engagement taking place after early June 2008. Written applications should be sent to Mrs. Valene Molloy. Further details of the research programme may be obtained by e-mailing [r.flynn@qub.ac.uk](mailto:r.flynn@qub.ac.uk)

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To contribute material to the NS-letter send an e-mail to:  
George Tsoflias [tsoflias@ku.edu](mailto:tsoflias@ku.edu)

DEADLINE: Material must be received 2 full business days prior to the first of each month.