

October 2011 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 October 2011:  
Primary affiliation: 740 members; Secondary: 2591 members

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1. 2011 Fall AGU Meeting

Registration is now open for the AGU Fall Meeting. Register by November 1 to qualify for the discounted registration and AGU housing rates (<http://sites.agu.org/fallmeeting/registration-and-meeting-services/registration/>).

1.1. Near-Surface Geophysics final session schedule

A total of 139 NS abstracts were received resulting in 6 oral sessions and 7 poster sessions. Approved Near-Surface Geophysics sessions for the 2011 AGU Fall Meeting (<http://sites.agu.org/fallmeeting/>) are as follows:

Monday, December 5, 2011:

- NS11B. Near Surface Geophysics General Contributions I: 8:00 AM - 10:00 AM; Room 3007  
NS11A. Hydraulically Fractured Systems and Thermo-Hydro-Mechanical Problems Relevant to Environmental Engineering Posters: 8:00 AM - 12:20 PM; Halls A-C  
NS12A. The Role of Mineral Water Interface in Understanding Geophysical Signals: 10:20 AM - 12:20 PM; Room 3007  
NS13A. From Pore-Scale to Basin-Scale: Geophysical Methods for Groundwater Evaluation and Management II: 1:40 PM - 3:40 PM; Room 3007  
NS14A. Novel Techniques Applied to Near-Surface Geophysical Problems I: 4:00 PM - 6:00 PM; Room 3007

Tuesday, December 6, 2011:

- NS23A. Near Surface Geophysics General Contributions II Posters: 1:40 PM - 6:00 PM; Halls A-C

Wednesday, December 7, 2011:

- NS33A. From Pore-Scale to Basin-Scale: Geophysical Methods for Groundwater Evaluation and Management I

Posters: 1:40 PM - 6:00 PM; Halls A-C

NS33B. Novel Techniques Applied to Near-Surface Geophysical Problems II Posters: 1:40 PM - 6:00 PM; Halls A-C

Thursday, December 8, 2011:

NS41A. Exploiting GPR and Seismic Wavefield Properties for Characterization of the Shallow Subsurface I: 8:00 AM - 10:00 AM; Room 3005

NS42A. Seismic Characterization of Unconsolidated Sediments I: 10:20 AM - 12:20 PM; Room 3005

NS43A. Exploiting GPR and Seismic Wavefield Properties for Characterization of the Shallow Subsurface II

Posters: 1:40 PM - 6:00 PM; Halls A-C

Friday, December 9, 2011:

NS51A. Cryosphere Geophysics I Posters: 8:00 AM - 12:20 PM; Halls A

NS51B. Near Surface Geophysics General Contributions III Posters: 8:00 AM - 12:20 PM; Halls A-C

## 1.2. Hydrogeophysics final session schedule

Thursday, December 8, 2011:

H42F. Hydrogeophysics: Monitoring and Modeling of Hydrological Processes From Lab to Field Scale I: 10:20 AM - 12:20 PM; Room 2020

H43E. Hydrogeophysics: Monitoring and Modeling of Hydrological Processes From Lab to Field Scale II Posters: 1:40 PM - 6:00 PM; Halls A-C

## 1.3. Near Surface Geophysics Focus Group Luncheon (ticket required)

The NS luncheon at the Fall AGU meeting will be held from 12:30-13:30 on Tuesday December 6 at the Intercontinental Hotel (Ballroom C). This event is the opportunity to learn about NS activities, engage with you fellow NS members and the NS officers, and provide feedback on how the focus group can further support the needs of the NS community. This is a ticketed event and we strongly encourage you to purchase lunch tickets in advance when you register online for the meeting. A number of FREE luncheon tickets will be made available to student members. Please see announcement below from Seth Campbell, NS Student Representative.

## 1.4. Near Surface Focus Group Luncheon for students (from Seth Campbell)

We are offering 30 free tickets to students, for attending the NSFG luncheon at the fall AGU Meeting on Tuesday December 6th, from 12:30-1:30 pm. If students are interested in receiving a ticket, please email Seth Campbell at [seth.campbell@umit.maine.edu](mailto:seth.campbell@umit.maine.edu). Students with primary affiliation to NSFG will receive tickets on a first come first serve basis until November 10th. If free tickets are still available after November 10, they will be given to all students who request tickets (NSFG and non-NSFG affiliated students) on a first come first serve basis until November 20th. Please note that tickets will not be available at the door and arrangements must be made prior to November 20th to gain access to the NSFG luncheon

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## 2. Help the Near Surface Focus Group Fund Make a Bigger Impact! (from Lu Pellerin)

Your support of fellow AGU Near Surface members and the next generation of student scientists is vitally important. With increased donations, we will be able to expand programming and NSFG initiatives to subsidize student tickets and registrations for Fall Meeting events, fund special student travel grants, honor distinguished and early-career NS member achievements, and provide travel support for NSFG award winners.

Help the NSFG increase our impact by making your donation of \$200, \$100, or \$20 today (click through to: [https://www.agu.org/get\\_involved/giving/donate/index.php](https://www.agu.org/get_involved/giving/donate/index.php))! Any amount will be greatly appreciated. Thank you for

your support!

Don't forget that all Supporting Members who donate \$120 or more in 2011 will have access to AGU's new and improved Donor Lounges at the 2011 Fall Meeting!

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3. Announcement: AGU-SEG Collaboration Committee (from Lu Pellerin)

The AGU-SEG Collaboration Committee (ASCC) met and AGU had a booth at the recent SEG meeting in an Antonio, TX. In addition to joint workshops and books we discussed ideas in which both AGU & SEG students can be supported. Kara Smedley, AGU staff, attend the SEG Committee on University and Student Programs (CUSP) meeting with John Bradford. In 2012 SEG will be sponsored by the NSGS; we want to support our sister organization with a best of AGU session, and need to determine how to pick the best papers – contact Louise Pellerin (pellerin@ak.net) with ideas.

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4. Announcement: AGU-SEG Collaboration Committee (from Lu Pellerin)

The first SEG-AGU co-sponsored workshop will be on Hydrogeophysics at Boise State on July8-11. Save the Date.

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5. Call for papers: Geotechnical Assessment and Geoenvironmental Engineering: deadline October 15, 2011 (from Janet Simms)

Special Issues in EAGE journal of Near Surface Geophysics and EEGS Journal of Environmental and Engineering Geophysics (JEEG)

Deadline for submission of abstracts: 15 October 2011

The past decade has seen a distinct change in the way geophysical methods are utilized to investigate geotechnical and geoenvironmental issues. Advances in instrumentation design, computer hardware and data processing software have all contributed to the development of novel and highly sophisticated geophysical techniques. In response to this rapid and exciting expansion of research, the Journal of Environmental and Engineering Geophysics and Near Surface Geophysics are producing a collaborative 'Special Issue on Geotechnical Assessment and Geoenvironmental Engineering' to showcase the state-of-the-art and the most pertinent research currently underway in the discipline.

This special issue is a joint venture of the European Association of Geoscientists and Engineers (EAGE), the publisher of Near Surface Geophysics and the Environmental & Engineering Geophysical Society (EEGS), the publisher of the Journal of Environmental and Engineering Geophysics, to promote and enhance communication between international research communities and ensure the widespread, effective dissemination of the latest work and results. To that end, online access of this issue will be made available to all EAGE NSGD and EEGS members.

We invite papers reporting on: Novel measurement, assessment and monitoring techniques; Application of new and emerging geophysical methods; Innovative data processing and visualization techniques; Modeling and inversion of geophysical data; Integrated geophysical imaging and characterization approaches; Geophysical estimation of engineering parameters; Novel and interesting case histories

Subjects can be related, but not limited, to the following topics: site and geomaterials characterization (including non-destructive testing of concrete), soil and rock erosion, slope stability, liquefaction potential, infrastructure assessment, urban planning, foundations, subsidence, collapse, compressible soils, organic soils, landfills, buried waste, contaminated soil deposits, obstructions, unknown conditions, undetected utilities, pseudo-karst features (utilities, tunnels and abandoned mines), sinkholes, caves, groundwater, detection and mitigation of leakage in dams,

earthquake hazard mitigation, earthquake ground motion prediction, bridge scour, highways and road construction, deep mine geology and orebody delineation, ground control, archaeological and historical sites.

The guest editors of this special issue will ensure both its topical focus and conformity with the high quality standards of Near Surface Geophysics and the Journal of Environmental & Engineering Geophysics.

Authors are encouraged to contribute high-level technical research papers. Please inform the EAGE Editorial Office, Ms. Wendel van der Sluis (ws@eage.org), about your intention to contribute and provide a one-page abstract by 15 October 2011.

Timeline:

Submission of extended abstracts Deadline 15 October 2011

Invitations to submit full papers: Before 15 December 2011

Submission of full papers: Deadline 1 April 2012

Review full paper submissions: April–December 2012

Publication: June 2013

Editors-in-Chief:

Janet Simms, Journal of Environmental & Engineering Geophysics, janet.e.simms@usace.army.mil

Ugur Yaramanci, Near Surface Geophysics, ugur.yaramanci@liag-hannover.de

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6 Call for papers: Near-Surface Measurements in Exploration Geophysics: deadline October 25 (from Gregory Baker)

NSG/AGU Members:

The deadline (October 25th--it has been extended) is fast approaching for submissions to a Special Issue of The Leading Edge (SEG's "gateway" publication). It has something like 10,000 subscribers around the world, so it is a great way to "be seen." The Special Issue is focused on Near-Surface Measurements in Exploration Geophysics. You can find author guidelines at: <http://www.seg.org/resources/publications/tle/submission-guidelines>

We want to continue to be a strong presence in the broader geophysical community, and this type of special publication will be a great place to showcase our work! In sum:

Deadline: October 25

Subject: Near-Surface Measurements in Exploration Geophysics

Please help me promote near-surface geophysics by putting together an excellent stream of papers!

Regards,

Gregory Baker,

Editorial Board Member The Leading Edge

and Jones/Bibee Professor of Geophysics, The University of Tennessee

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7. Call for papers: GPR2012: deadline November 15, 2011 (from Jan van der Kruk)

The 14<sup>th</sup> International Conference on Ground Penetrating Radar (GPR2012) will be held on June 4-8, 2012. Tongji

University in Shanghai, China is the host institution (General Chair: Prof. Xie Xiongyao, [xiexiongyao@tongji.edu.cn](mailto:xiexiongyao@tongji.edu.cn)).

The goal of GPR2012 is to provide an international forum for scientists, engineers, and all kinds of GPR end users to discuss and exchange the advancement of GPR technology (advanced modeling, processing, inversion, and novel GPR systems and antennas) and its applications in hydrogeophysics, geophysical exploration and mining, archaeology and geology, civil and geotechnical engineering, concrete, pavement and material characterization, etc.

The deadline for submitting abstracts (limited to 300 words) is November 15, 2011

The deadline for the Camera ready paper (4 to 6 pages) submission is February 15, 2012

For more information, please visit [www.gpr2012.org](http://www.gpr2012.org).

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8. Reminder: AGU Chapman Conference on Remote Sensing of the Terrestrial Water Cycle: deadline October 27, 2011

Dear Colleague:

On behalf of the Program Committee, we write to remind you that the deadline for the receipt of abstracts and applications for travel support for the AGU Chapman Conference on Remote Sensing of the Terrestrial Water Cycle (19 – 22 February 2012) is 27 October 2011.

Travel support is still being worked out and we hope we have funds to support (a) Students (b) Early Career Scientists and (c) Mid-career scientists.

Confirmed Speakers include:

Dennis Lettenmaier (U Washington), Jay Famiglietti (U C Irvine), John Melack (U C Santa Barbara), Tom Farr (JPL), Tom Raupach (CSIRO), Yann Kerr (CESBIO, France), Arthur Hou (NASA GSFC), Gunther Bloeschl (Vienna), Jerad Bales (USGS), Piniping Xie (NOAA), Wade Crow (USDA), Tom Jackson (USDA ARS), Eric Wood (Princeton), Kevin Trenberth (NCAR), Gail Skofronick-Jackson (NASA GSFC)

For further details about the Chapman Conference visit the AGU Chapman Conference on Remote Sensing of the Terrestrial Water Cycle Web site.

Venkat Lakshmi (Convener)

Program Committee: Mike Cosh, Doug Alsdorf, Peter van Oevelen, Matt Rodell, Martha Anderson, George Huffman, Bill Kustas, Jared Entin, Juraj Parajka

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9. Announcement: EEGS Geonics Early Career Award: deadline October 29, 2011 (from Jonathan Nyquist)

Nomination Deadline: October 29, 2011

The Environmental and Engineering Geophysical Society and Geonics Limited are pleased to announce that nominations are now open for the 2012 EEGS / Geonics Early Career Award, which acknowledges academic excellence and encourages research in near-surface geophysics. The award is presented annually at SA GEEP to a full-time university faculty member who, by the nomination deadline; is

- fewer than five years beyond the starting date of his or her current academic appointment;
- within ten years post-completion of his or her PhD.

The award acknowledges significant and ongoing contributions to the discipline of environmental and engineering geophysics. The recipient may have any specialty that is recognized as part of the environmental and engineering

geophysics discipline. This specialty is not restricted to departments, colleges, or geographic regions (international applicants are welcome). A committee of four or five members (two or three university faculty, one corporate or consulting representative, and one government laboratory representative), appointed by the EEGS Board, is responsible for selecting the awardee.

The award carries the following benefits:

- Free registration to the SA GEEP conference at which the award will be presented
- A plaque, suitable for display
- A \$1000 cash award
- A 30-minute time slot to present the awardee's research and vision at SAGEEP
- The citation and, if available, the awardee's presentation, is published in FastTIMES and distributed to cooperating societies

The awardee will be expected to be present during the technical core of SA GEEP 2012 in Tuscon, Arizona.

Nominations should be sent electronically to:

Dr. Jonathan Nyquist, Chair of the Early Career Award Committee  
Temple University  
1901 N 13th Street, Philadelphia, PA 19122-6081  
Phone: 215-204-7484  
nyq@temple.edu

Nomination packages must include:

- A comprehensive vitae for the candidate
- A letter of recommendation outlining the candidate's qualifications for the award
- Copies or pdf files of three representative publications

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## 10. Open positions:

### 10.1. Professor (W2) for Hydrogeophysics at Forschungszentrum Juelich and Stuttgart University

The Faculty of Civil and Environmental Engineering of the University of Stuttgart and the Forschungszentrum Jülich invite applications for the position of a Professor (W2) for Hydrogeophysics (appointment as Professor at the University of Stuttgart, academic leave of absence and secondment to the Forschungszentrum Jülich), starting as soon as possible. The Professor is intended to contribute to strengthening the development and application of hydrogeophysical measurement methods for the improved characterization and monitoring of terrestrial hydrosystems. In particular, electrical geo-physical measurement methods are to be advanced in co-operation with the Central Institute for Electronics (Zentralinstitut für Elektronik) of the Forschungszentrum Jülich and adapted to hydrological applications. Electrical resistivity and impedance tomography, self-potential measurements and magneto-electrical imaging techniques are of especial importance. The joint appointment (following the Jülich model) is intended to extend and intensify co-operation between the Forschungszentrum Jülich in the field of terrestrial process monitoring (TERENO) and the University of Stuttgart in the field of modeling flow and transport processes in heterogeneous porous media on various scales.

The professor is expected to focus on research in the field of modeling flow and transport processes in heterogeneous porous media on various scales as incorporated in the research area "Earth and Environment" of the Helmholtz Association as well as to cultivate close links with the Water Research Centre (Wasserforschungszentrum) at the University of Stuttgart. In addition, close co-operation with existing research initiatives such as the International Research Training Group "Non-linearities and Upscaling in Porous Media" (NUPUS) would be welcomed. One of the professor's tasks is to develop the teaching profile and hold courses in the field of hydrogeophysics in both the German- and the English-language bachelor and master study programs of the Faculty of Civil and Environmental Engineering.

Written applications should be sent no later than October 15th, 2011, to Prof. Dr.-Ing. habil. Christian Moormann, Head of Search Committee, Institut für Geotechnik, Uni-versität Stuttgart, Pfaffenwaldring 35, 70569 Stuttgart,

Germany. More information can be found here: <http://www.uni-stuttgart.de/jobs/angebote/job707.html>

## 10.2. Post-doc in geophysics with focus on reflection seismic methods at Uppsala University

Applied geophysics covers a broad spectrum of geophysical methods for investigating the physical state of the Earth's crust. Traditionally, electromagnetic methods have been important for mineral prospecting while seismic methods have been important in the petroleum industry. During recent decades, the fields of application of these methods has expanded considerably and now both methods are applied within the fields of mining and petroleum geophysics. In addition, applied geophysics has become an important component in environmental applications and in studies of large scale crustal structure. At geophysics program at the Dept. of Earth Sciences the research emphasis is on crustal structure mapping, development of geophysical methods, tectonic processes, mapping and monitoring of CO<sub>2</sub> and nuclear waste storage sites, mineral prospecting and near surface geophysics. There is close cooperation with researchers on the national and international level within the fields of tectonics, hydrogeology, hydrogeophysics and scientific drilling.

Appointment period: 2 years starting 15 January or as agreed upon with the possibility of a further employment as Researcher for 2 years.

### Nature of duties:

Include research and planning of research in geophysics with special emphasis on reflection seismic methods. The post-doc will participate in field work, data processing and interpretation activities in conjunction with externally financed projects. Focus will be on projects related to CO<sub>2</sub> storage, mineral prospecting and development of seismic processing methods. This is a research position, but teaching up to 20% may be part of the duties.

### Qualifications required:

To qualify for appointment as post-doc you must have a PhD. Priority is given to applicants who have completed their PhD within 3 years of the application deadline. Furthermore, according to Uppsala University's general employment regulations, it is also a requirement that teachers possess the necessary skills and qualifications to carry out their duties proficiently.

How to apply: See [www.personalavd.uu.se/ledigaplatser/2059postDOC.html](http://www.personalavd.uu.se/ledigaplatser/2059postDOC.html)

Application deadline: 31 October 2011

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To contribute material to the NS-letter send an e-mail to:

Xavier Comas [xcomas@fau.edu](mailto:xcomas@fau.edu)

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

GUIDELINES FOR SUBMISSIONS: All members are welcome to submit content of interest to the NS community. Please keep messages brief and provide contact information and (if available) a web address for additional information. AGU requests formatting of e-mail messages to be as simple as possible (no bold characters (use ALL CAPS instead), no color font, or other special formatting of text and paragraphs). E-mail attachments cannot be distributed