

July 2010 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 July 2010:

Primary affiliation: 691 members; Secondary: 2316 members

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1. Announcement: introduction to the 2010-2012 Near-Surface Executive Committee (from Lee Slater)

NS Focus Group under New Leadership:

Effective July 1, the NS Focus Group is under new leadership. Louise Pellerin (Green Engineering), previously Vice-Chair, is the newly appointed Chair, George Tsoflias, previously Secretary and Newsletter Editor, is the newly appointed Vice-Chair. Rhett Herman, webpage editor, is assuming the role of Secretary.

2. Joint Assembly Meeting of the Americas, 08-13 August 2010, Foz do Iguassu, Brazil (from Juan Lorenzo)

The Joint Assembly Meeting of the Americas is coming up soon on 08-13 August 2010, Foz do Iguassu, Brazil.

Near Surface Geophysics sessions:

NS01: Near Surface Geophysics General Contributions - Poster (Conveners: Jandyr De Menezes Travassos and Juan Manuel Lorenzo)

NS05: Open Reference Data sets, Software and Control Test Sites - Oral (Conveners: Juan Manuel Lorenzo and Jorge Porsani)

NS06: Radioactivity in the Near Earth Surface Environment – Oral and Poster (Conveners: Joselene Oliveira and Fernando Brenha Ribeiro; Cosponsors: Volcanology, Geochemistry and Petrology; Paleooceanography and Paleoclimatology; Biogeosciences; Natural Hazards; Hydrology)

NS07: Technological Developments in Near-surface Geophysics I - Oral (Conveners: Sergio Luiz Fontes and Louise Pellerin)

NS08: Mapping and Monitoring the Near-surface – Oral and Poster (Conveners: Evert C. Slob, Sebastien Lambot; Cosponsors: Natural Hazards)

The Meeting of the Americas (<http://www.agu.org/meetings/ja10/>) will be held 08-13 August 2010 in Foz do Iguacu, Brazil. The Iguazu World Natural Heritage Park will provide a spectacular backdrop to this Assembly which is sponsored by the most important Earth Science and Space Community Organizations of the Americas.

NS Program Committee for JA 2010 :

Jandyr Travassos, Brazil [<mailto:jandytr@on.br>](mailto:jandytr@on.br)

Juan Lorenzo, [<mailto:gllore@lsu.edu>](mailto:gllore@lsu.edu)

3. Fall 2010 AGU Meeting reminder (from Chester Weiss)

Acceptance notifications for the Fall Meeting will be sent to session conveners on July 14. They will also be posted on the AGU web site at that time.

4. SEG-NSGS news (from Jan van der Kruk)

4.1. SEG 2010 Denver Colorado, 17-22 October

Over 60 abstracts were submitted and reviewed for the SEG 2010 Technical program. Seven technical sessions are distributed across the seven technical sessions slots. A broad spectrum of near surface geophysics will be presented in three oral sessions about “Methodological developments and case studies 1, 2” and “surface waves”, two poster sessions: “Methodological developments and case studies 1 and 2” and three special sessions about “Geohazards and public safety”, “Humanitarian and Environmental Applications of Geophysics at the Community scale” and “Hydrogeophysics”. The NSGS thanks those members whom submitted or reviewed abstracts this year.

Additionally, there will be two NSGS events at this year's technical meeting that we also hope to see you at: An evening social event/business meeting for awards held at Wynkoop Brewing Company, Mercantile Room, 1634 18th St. on Tuesday Oct 19th. The NSGS Meeting starts at 6:30, the Dinner/Reception at 7:30. (No Charge to NSG Section Members, Non-members can join on the spot and students are welcome: Student membership free). The annual section's Business Meeting will be held at the convention center on an afternoon with minimal conflict to

other NSG sessions. Further information about the sessions and the Post-Convention workshop will be provided on the NSGS website (<http://nsgs.seg.org/>).

We are looking forward seeing you in Denver.

For questions or suggestions please do not hesitate to email Jan van der Kruk (j.van.der.kruk@fz-juelich.de) or Klaus Holliger (klaus.holliger@unil.ch).

4.2. Call for NSGS Executive Committee and Award Nominations

The NSGS Nominations Committee is soliciting nominations for President-Elect and Treasurer for the 2010/2011 NSGS Executive Committee. The duties of the officers can be found at http://nsgs.seg.org/Bylaws_October2008.pdf. If you would like to be nominated or you would like to nominate someone, please let us know by emailing us at nsgs@seg.org. We encourage any member with interest in strengthening the NSG community to become more involved in the NSGS.

Awards Nominations:

Harold Mooney Award

The Harold Mooney Award is presented by the NSG Section during its reception and dinner at the SEG annual meeting. The honoree is chosen by his or her peers through nominations from the membership and recommendation to the NSG Section Executive Committee. The award is presented to an individual in recognition of long-term, tireless, and enthusiastic support of the near-surface geophysics community through education, outreach efforts, professional service, or development of opportunities with other professional disciplines that employ geophysics.

Frishknecht Leadership Award

The Frank Frischknecht Leadership Award is jointly presented by the NSG Section and the Environmental and Engineering Geophysical Society (EEGS). The award alternates (on an approximately 18-month interval) between the SAGEEP meeting and the NSG Section's banquet at the SEG annual meeting. This year it will be presented by the EEGS, but the NSGS can send nominations to the EEGS for consideration. The Frank Frischknecht Leadership Award is established to recognize an individual who shows extraordinary leadership in advancing the cause of near-surface geophysics.

For more information see <http://nsgs.seg.org/section-awards.htm>

Send nominations to Larry Bentley (Treasurer NSGS) by email (lbentley@ucalgary.ca) or snail mail (Department of Geoscience, University of Calgary, Calgary, Alberta T2N 1N4, Canada).

The nomination should contain the name, title and affiliation of the candidate along with a statement describing the reasons for the nomination.

5. European Meeting of Environmental and Engineering Geophysics, Zurich, Switzerland (from Niklas Linde)

6 - 8 September 2010

16th European Meeting of Environmental and Engineering Geophysics

Zurich, Switzerland

The deadline has passed for submitting extended abstracts

More information: http://www.eage.org/events/index.php?evp=3149&ActiveMenu=2*

Invitation

On behalf of Swiss applied geophysicists, I am pleased to invite you to Near Surface 2010, the 16th European Meeting of Environmental and Engineering Geophysics to take place in Zurich on 6 – 8 September 2010.

The conference will be held in the main building of ETH, which was built in the 1860's based on a design by the famous ETH Professor of Architecture, Gottfried Semper. This classic building overlooks the fashionable city of Zurich with its breathtaking views of the Swiss Alps. Numerous high quality bars, cafés, restaurants, discos and nightclubs can be found throughout the city. The pleasant ambience of central Zurich is enhanced by pedestrian-only streets and cobblestone alleys on either side of the picturesque Limmat River. For those conference participants and spouses who are interested in hiking and mountaineering, it is possible to travel by rail or road from Zurich to the high mountains in less than 35 minutes; September is often the optimum month (great weather and few tourists) to visit the Alps. For those who wish to experience diverse cultures, Switzerland's borders with Germany, France, Austria, Italy and the tiny Principality of Lichtenstein are all within a short distance of Zurich.

ETH has a well deserved academic reputation. In recent global assessments, it has been consistently ranked as the top university in continental Europe. The most famous graduate of ETH was none other than Albert Einstein! He is one of twenty-one Nobel Prize Winners to have been associated with ETH during their student and/or professional careers. Although not a Nobel Prize winner, the contribution of former ETH Professor of Geophysics Fritz Gassmann (Gassmann theory and equation) to our understanding of wave propagation through porous media was a landmark in applied geophysics. The current ETH group of environmental and engineering geophysics dates from 1992. Two of its former employees are now professors at the University of Lausanne, the other major centre of Swiss geophysics. Research activities at the two Swiss centers of applied geophysics range from theoretical and algorithmic developments to applications of state-of-the-art geophysical methods in archeological, geological, hydrological, engineering, environmental and hazard-related investigations.

In addition to the feast of lectures and posters that will cover many areas of environmental and engineering geosciences, conference participants will also have the opportunity to attend a hydrogeophysics workshop that will be given by a world-class group of environmental and engineering geophysicists. It will also be possible to visit an active hydrogeophysics test site or a spectacular Alpine underground rock laboratory in which a wide variety of geoscientific experiments are being conducted as components of numerous national and international radioactive waste disposal programs.

Near Surface 2010 will be an ideal venue for you to learn about the latest developments in environmental and engineering geosciences, to network with new and existing colleagues and to experience a vibrant European city and the nearby Swiss Alps.

Alan Green

Chairman of the Local Advisory Committee, Near Surface 2010

*Hydrogeophysics workshop on 5 September, 2010

*More information:

<http://www.eage.org/events/index.php?evp=3168&ActiveMenu=15&Opendivs=s3,s15>

Convenor: Niklas Linde (University of Lausanne)

Many geophysical data types are sensitive to a combination of hydrological properties and state variables and may therefore provide useful independent information in hydrological studies. How to quantitatively link different geophysical and hydrological data types is still an open question. A world-class group of invited speakers will provide their views on the links between geophysical and hydrological properties, robust hydrogeophysical parameter estimation and data integration and fully-coupled hydrogeophysical inversion. Results from ongoing hydrogeophysical research aimed at investigating river-groundwater interactions will serve as a basis for discussions on how field-based hydrogeophysical research can be achieved.

*Invited speakers with tentative titles of talks: *

Thomas Günther

Leibniz Institute for Applied Geophysics

Multi-method geophysical inversion methods applied to hydrology

Esben Auken

Aarhus University

Airborne electromagnetic methods applied to hydrology

Andreas Kemna

University of Bonn

Spectral induced polarization methods applied to hydrology

Andrew Binley

Lancaster University

Constraining hydrological models with geophysical data

Klaus Holliger

University of Lausanne

Integration of high-resolution geophysical data for the characterization of alluvial aquifers

Frederick Day-Lewis

U.S. Geological Survey

Multi-method geophysical investigations of groundwater/surface-water interaction

6. SAGEEP 2011, Charleston SC, April 11-14 2011

In order to meet the evolving need of our membership—and to attract new members—the Environmental and Engineering Geophysical Society (EEGS) will be launching a new approach for technical session development, abstract preparation, and submission for the Symposium on the Application of Geophysics to Environmental and Engineering Problems (SAGEEP). These procedures will be in place for SAGEEP 2011, which will be held in Charleston, SC.

- A call for session proposals will be released in May 2010. Sessions may be proposed through September 6, 2010, via the EEGS website, and will require a brief description and list of potential speakers. Once accepted, session proposers will be responsible for developing the session by soliciting papers from individuals in the subject area. Also new this year will be that each session may have one “invited” paper, which may be longer in duration than the others.
- Expanded multi-page abstracts for the proceedings will no longer be required, but will instead be optional based on the desires of the participant.
- The abstract deadline for SAGEEP 2011 will be November 19, 2010. Abstracts will be short (300 words max), and a format template will be prescribed. Submission of an abstract will constitute a commitment to attend the conference, and a \$50 fee will be charged upon submission. Abstracts will be reviewed for both scientific relevance and absence of commercialism, and notices of acceptance or rejection will be sent in late 2010.
- Authors will then have the option of submitting an expanded abstract, if they choose. These optional expanded abstracts may range in length from a few pages to ten or more pages, and will retain the format of previous SAGEEP proceedings. They must be submitted by January 14, 2011, to be included in the abstract volume that will be distributed at the conference.

Please address any questions regarding these changes to the SAGEEP 2011 Technical Chair, Dr. Gregory Baker (gbaker@tennessee.edu) or General Chair, Dr. William Doll (dollw@battelle.org). Consult the EEGS website, www.eegs.org for current information.

7. International PhD Course in Hydrogeophysics, Denmark, August 2010 (from Andrew Binley)

Following the success of the Hydrogeophysics course in 2006, the FIVA International Research School of Water Resources in Denmark is pleased to announce a second International PhD Course in HYDROGEOPHYSICS

The course, which is open to international PhD students*, will take place on August 10 - 12, 2010 at the Geocenter Copenhagen, Denmark

* FIVA will cover accommodation, lunches and course-related costs for all students accepted for the course (see below).

Lecturers

Andrew Binley, Lancaster University, UK

Giorgio Cassiani, Università degli Studi di Padova, Italy
Ty Ferré, University of Arizona, USA
Lars Nielsen, University of Copenhagen, Denmark

Aims

This short course aims to provide training in the use of geophysical methods for hydrological investigations. The focus will be on geoelectrical and georadar methods, although other methods will be covered. Students will learn about the relationships between hydrological and geophysical properties and how to design and carry out surveys using geophysical techniques. We will also outline various approaches for fusion of various hydrogeophysical data. Hands-on training in the use of inverse methods for analysis of hydrogeophysical data will be given. A field excursion will take place in order to show operational hydrogeophysical surveys and provide some exposure to practical techniques. Case studies will be presented to demonstrate the potential value of geophysics in hydrological investigations, from small plot scale to large scale studies. We will outline the limitations of current hydrogeophysical methods and identify specific opportunities in this field.

Registration deadline: 7 July 2010

Other information

The course is limited to 25 students. FIVA will provide accommodation, free of charge, for all students registered on the course. All students are requested to cover travel expenses and per diem from their own funding.

PhD-students not affiliated with FIVA need to email an official recommendation from their supervisor supporting their participation. The letter should be emailed to fu@geo.ku.dk in DOC or PDF format. It should contain a scanned signature from the supervisor. PhD students not affiliated with FIVA will be informed about whether they can participate shortly after the registration deadline.

Travel grants for non-FIVA students studying towards a PhD at a US institution

Travel grants are available to a number of full-time PhD students in hydrogeophysics currently studying at a US institution. These travel grants are made possible by an award from the National Science Foundation to Slater (Rutgers), Barrash (Boise), Binley (Lancaster) and Revil (Colorado). Interested applicants should contact Lee Slater at Rutgers University-Newark (lslater@andromeda.rutgers.edu) for an application form.

Further details

<http://www.fiva.dk/courses.asp?show=89>

8. Postdoctoral scientist: geophysical properties of biofuels

We seek a postdoctoral scientist to work on an Environmental Protection Agency (EPA) student services contract to continue work on the geophysical properties of biofuels in the environment.

The postdoctoral scientist will be based at Rutgers University-Newark and will work under the co-supervision of Dale Werkema (EPA) and Lee Slater (Rutgers). We anticipate a Sept 1, 2010 appointment although there is some flexibility in the start date. The ideal applicant will have an interdisciplinary background in physics, geophysics, geochemistry and/or biology. Full details of the position and an application form are available at <http://www.epa.gov/oamrtpnc/q1000174/index.htm>. The deadline for the receipt of applications is August 1, 2010. Questions regarding the position should be addressed to Lee Slater (lslater@andromeda.rutgers.edu) and Dale Werkema (werkema.d@epamail.epa.gov)

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

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