

**NEAR-SURFACE GEOPHYSICS FOCUS GROUP
NEWSLETTER: MAY 2013**

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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://sites.agu.org/nsg/>

Follow NSFG on Twitter @NS_AGU!

1. Call for presentations and participation at the 2013 SEG - AGU - EEGS Coastal Geophysics Workshop (from Jeff Paine)

The Near Surface Section of the Society of Exploration Geophysicists, with the support of the AGU Near Surface Focus Group and the Environmental and Engineering Geophysical Society, is conducting a coastal geophysics workshop at the SEG Annual Meeting in Houston in September 2013. The deadline for expressing interest in presenting at this workshop is May 15, 2013. Please send requests for consideration to John Goff (goff@utig.ig.utexas.edu) or Jeff Paine (jeff.paine@beg.utexas.edu). Those who wish to attend but would rather not give a presentation should also contact the organizers.

Near Surface Geophysics in the Dynamic Coastal Environment: Crossing the Land/Sea Interface SEG Annual Meeting Houston, Texas Friday, September 27, 2013
Conveners: John Goff and Jeff Paine, The University of Texas at Austin

The coastal zone is a habitat for much of the world's population, a key economic driver for fishing, shipping, recreation and tourism, and a critical wetlands ecology. However, the coastal zone is also a dynamic setting undergoing significant change at many different time scales. Large storms, for example, can restructure coastal morphology on the scale of hours or days. Rising sea level or changes in sediment supply will alter the coastline over decades to centuries and longer. These are human-relevant time scales, and such changes can have major impacts on coastal infrastructure, habitability, and ecology. Human activity also impacts the coast; e.g., hardening of coastlines and inlets, reduction in sediment supply due to damming, or artificial beach replenishment. Both land- and marine-based near-surface geophysical methods can play a significant role in understanding the many processes that impact the coastal zone. For example, laser ranging and acoustic bathymetry and backscatter can be used to actively monitor morphological changes over days to years. Ground-penetrating radar or acoustic reflection can be used to map stratigraphic successions in the coastal zone that are developed over decades to millennia. The goal of this workshop is to highlight the latest developments in application of near-surface geophysical methods to the coastal zone. We will emphasize as well connections between these methods and both the sedimentary geology of the coastal zone and numerical modeling of the impacting processes.

2. EEGS Updates: SAGEEP Session Proposals + EEGS-SEG Merger Talks (from Bruce Smith)

It is never too early to start thinking about SAGEEP (Symposium on the Application of Geophysics) to Engineering and Environmental Problems) 2014 being held March 16-20 at the Boston Marriott Copley Place Center in downtown Boston. EEGS VP SAGEEP Jutta Hager (jhager@hagergeoscience.com) will be calling for session proposals in early May. Watch the EEGS web site (www.eegs.org) for announcements. Juan Lorenzo serves on the technical organizing committee representing the NSFG. The annual SAGEEP meeting continues to grow through collaboration with the AGU NSFG, SEG and others with interest in near surface geophysics. Members of AGU NSFG are strongly encouraged to participate in SAGEEP 2014 in Boston, Massachusetts. Expect the schedule of activities to include the opening ice breaker, keynote, multi-track technical sessions, exhibitors' outdoor equipment demonstrations, field trips, luncheons, a special conference evening event, workshops, and short courses. Save these dates and plan to attend SAGEEP 2014 next March in Boston.

EEGS –SEG talks continue on merger and formation of a new near surface geophysics society. Latest updates can be found on the EEGS web site (<http://eegs.org/AboutUs/EEGSSEGMerger/Updates.aspx>) where text for the April EEGS Board of Directors motion can be found. Comments can be sent to staff@eegs.org. A link to the discussions can also be found at the SEG web site (http://www.seg.org/resources/sections-societies/near_surface/seg-board-announcement022013).

3. Call for Nominations for 2014 SEG Near Surface Honorary Lecturer (from John Bradford) Nomination Deadline: July 13, 2013

In 2012, SEG expanded the Honorary Lecture (HL) Program to include the first thematic lecturer in Near Surface (NS). After the inaugural NS lecture tour by Rick Miller in 2012, Valentina Socco will present the upcoming 2013 lecture titled: "*Surface wave analysis for near-surface characterization: Introduction, theme and variations.*"

Now is the time to submit nominations for the 2014 Honorary Lecturer! Please submit completed nomination forms to Judy Wall (jwall@seg.org). The nomination period ends on July 13, 2013. The NSG community needs to support the NS HL and the first step is through nominations.

The goals of the Honorary Lecture program are to recognize an individual's contributions to advancing the science and technology of geophysics, foster a sense of community amongst geophysicists by providing opportunities for local meetings and exchange of ideas, and encourage students by providing the opportunity to discuss scientific and career issues with a leading expert.

The lecturer should be an expert in their field, an effective representative of SEG and an outstanding communicator. The lecture topic should be current and of global interest. The HL committee seeks nominations for many outstanding individuals; if you know a candidate to represent the SEG NSG in 10 - 12 domestic and international cities in 2014, please submit a nomination form today.

4. Call for Nominations for Harold Mooney Award (from John Bradford)

Nomination Deadline: June 1, 2013

The SEG-NSGS has two major awards: the Harold Mooney Award and the Frank Frischknecht Leadership Award. These awards provide a chance to honor those members of our community that have made outstanding contributions.

This year, the Mooney award will be presented at the NSGS Dinner and Reception at the SEG Annual Meeting in Houston. For the awards to be effective we need active participation from our membership to generate nominations. Please read the following award descriptions and submit your nomination by email to John Bradford (johnb@cgiss.boisestate.edu). The nomination form should contain the name, title and affiliation of the candidate along with a statement describing the reasons for the nomination. Nominations should be received by June 1, 2013 for full consideration.

Harold Mooney Award

The Harold Mooney Award is presented by the NSGS during the luncheon at the SEG Annual Meeting. The honoree is chosen by his or her peers through nominations from the membership and recommendation to the NSGS 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. For more information see this [link](#).

5. Last Month's Twitter Highlights (from Stephen Moysey)

Want to keep up on deadlines and happenings that get missed between newsletters? Sign up on [Twitter](#) to follow us [@NS_AGU](#). Here are a few Tweets from last month:

- Apply for a job with [De Beers](#) Exploration;
- Check out the GWB [project blog](#) in Jamaica;
- Win \$10k from NSF-Gates Foundation in [BREAD competition](#);
- Interesting perspectives on [inversion](#) and "Must Reads" in Matt Hall's geophysics blog;
- Jessica Ball asks for input on [core skills for geology majors](#);
- \$2500 [scholarship opportunity](#) for students from Cengage;
- [Early career webinar](#) on tips for presentations;

6. UPCOMING MEETINGS AND DEADLINES

6.1 AGU 2013 Fall Meeting (San Francisco, USA)

Before packing it in for the summer (if only!) plan ahead now to have your fall meeting abstract ready for submission this August.

Important dates for the 2013 Fall Meeting:

June 17:	Abstract submission site opens
July 15:	Registration and Housing opens
August 6:	Abstract submission deadline
Dec. 9-13:	2013 Fall Meeting

6.2 EAGE 2013 (London, UK)

Meeting Date: June 10-13

Technical Program Website: www.eage.org/events/index.php?evp=6983&ActiveMenu=2

Join your colleagues this summer in London for the EAGE Conference & Exhibition incorporating the SPE EUROPEC 2013. Many geophysics oriented session of interest will be available in the technical program, ranging from basic methods development to applications to carbon sequestration and archeology. Under the heading of Near Surface Geoscience, the 19th European Meeting of Environmental and Engineering Geophysics is set up to highlight new achievements of geoscientific methods applied for the investigation of the shallow parts of the Earth and its surface.

The technical programme includes several oral and poster presentations on a broad selection of near surface geoscience related topics. For an overview of all topics, the venue, the workshops or other related topics please visit the [event's website](#) or read the [First Announcement](#). If you have more questions you can also contact us via nearsurface@eage.org!

7. Position Announcements

7.1 Ph.D. Position in Fractured Rock Hydrogeophysics (from Niklas Linde)

The Applied and Environmental Geophysics Group at the University of Lausanne has an opening for a doctoral student in the field of fractured rock hydrogeophysics. The selected student will combine saline tracer tests and single-hole ground penetrating radar monitoring to characterize transport behavior in fractured rock aquifers. The position is funded for three years and the starting date is June 1, 2013, or a later date to be decided upon. The successful candidate should hold a MSc degree in geophysics, physics, hydrology or engineering. He/she should have a keen interest and preferably some experience in scientific computing, geophysical and/or hydrological data processing, forward modeling and inversion. We are a dynamic international research group working on a wide variety of topics in environmental and computational geophysics. Basic knowledge of French is an advantage, but not a requirement. Our research center is well equipped, evolving dynamically, and scenically located on the shores of Lake Geneva, a region of outstanding beauty that offers a vibrant cosmopolitan atmosphere and a very high quality of life.

To apply, please send a cover letter clarifying your overall motivation for entering a PhD program together with your curriculum vitae and the names, telephone numbers, and e-mail addresses of two referees to Prof. Niklas Linde, CRET/GSE, Géopolis 3779, University of Lausanne, 1015 Lausanne, Switzerland or e-mail to: niklas.linde@unil.ch. The deadline for submission of applications is April 30, 2013, but late applications will be also be considered.

7.2 Opportunity for Masters Research, Rutgers-Newark (from Markus Wehrer)

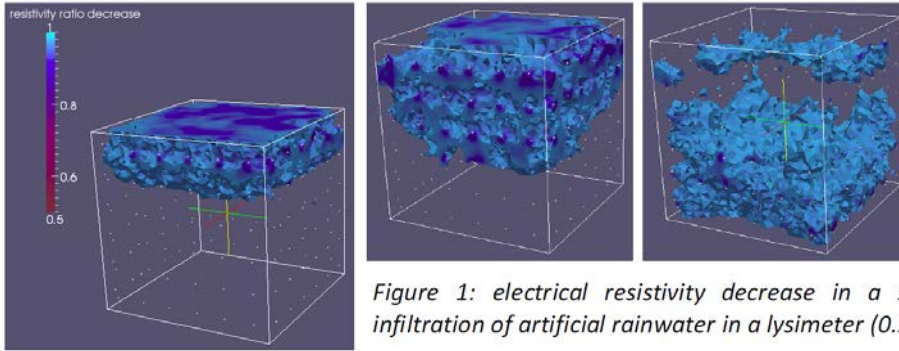
The Department of Earth and Environmental Sciences at Rutgers University (New Jersey, US) offers the research project (starting date: Summer 2013):

Preferential flow and transport processes of an agricultural soil investigated by geoelectrical methods

Supervisors: Dr. Markus Wehrer, Prof. Dr. Lee Slater
contact: markus.wehrer@rutgers.edu

Project description:

Preferential flow and transport processes dominate water budget and fate of solutes in a wide range of soils. In agricultural soils, knowledge of such processes is crucial to determine the fate of fertilizers and pesticides. Yet, currently their observation is hampered by the lack of methods, which are able to detect soil water and solute movement at the location where they are occurring at the moment when they are occurring. The aim of the project is to characterize flow and transport properties of a soil core using different geoelectrical tomographical methods (electrical resistivity (Figure 1), induced polarization and self potential). This will be done by conducting infiltration events in a soil core while observing the electrical responses, outflow of water and solute transport. Ultimate objective is a joint hydrological-geophysical modeling of the core.



Benefit for the student: The student will gain unique expertise in both soil hydrology and several geoelectrical methods in a cutting edge scientific project. The focus of the project can be adapted to the interest of the student and his/her skill sets. On the experimental side, he or she will learn how to deal with typical soil physical equipment, chemical analysis of seepage water and application of geoelectrical instrumentation. The analysis of the data will be done with hydrological and geoelectrical tomographic models and a combination thereof, which will provide an outstanding research experience for the student.

Requirements: The proposed project is directed towards a Masters dissertation. We are looking for a dedicated student interested in an intensive research experience. Knowledge in soil physics and/or geophysics is preferable. The ideal student will have practical experimental skills and a good understanding of modeling of environmental systems. The minimum requirement is a 3 months stay in New Jersey (US) during the initial project phase. Travel and accommodation will be paid for. Communication in the final project phase with Slater and Wehrer can be done remotely via Skype. **Environment:** The Department of Earth and Environmental Sciences at Rutgers, Newark is located on the internationally most diverse campus of the US. The geophysics group, led by Prof. Lee Slater has specific expertise in electrical geophysics and hydrogeophysics. Newark is located in the North-East of the US, a 20 min train ride from New York City with its huge variety of cultural offerings.

TO CONTRIBUTE MATERIAL TO THE NS-NEWSLETTER SEND AN E-MAIL TO:

Stephen Moysey (smoysey@clemsun.edu)

DEADLINE: Material must be received 4 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.

GET YOUR MESSAGE OUT NS MEMBERS FASTER:

You will no longer need to wait until the end of the month to share an important or time-sensitive contribution to the newsletter. Appropriate contributions to the newsletter will also be shared ASAP via Twitter. Please note that only NSFG members that follow [@NS_AGU](https://twitter.com/NS_AGU) will receive Twitter announcements, so make sure that you sign up!