



**NEAR-SURFACE GEOPHYSICS FOCUS GROUP
NEWSLETTER: FEBRUARY 2014**

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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. AGU Elections: Call for NSFG President-elect and Secretary Nominations
(from G. Tsoflias, NSFG President)**

Later this year, AGU will elect its next set of officers for the 2015-2016 term and the nomination process is now underway. We are looking for possible candidates for Near Surface Focus Group President-elect and Secretary. If you are interested in being considered or would like to nominate another member, please send an email to Louise Pellerin (pellerin@greengeophysics.com). As you consider those opportunities it will be helpful to review AGU's strategic plan (<http://sites.agu.org/leadership/strategic-plan/>) and the leadership criteria and job description for Council members (Focus Group President and President-elect serve in the AGU Council) (<http://sites.agu.org/leadership/volunteer/job-descriptions/>). The email should include some information about the possible candidate: name, job title, employer, AGU section/focus group affiliation(s), email and phone number, link to website/CV, if possible. It would also be helpful to know why you are nominating yourself or the other member - what strengths do you think they bring to the table?

Nominations should be submitted by 15 March 2014. If you have any questions, please contact Louise Pellerin (pellerin@greengeophysics.com).

2. Attention Early Career Scientists – NSFG wants to hear from you! (from Nedra Bonal)

Have you recently obtained a new position, received an award, or published a paper? Do you have an interesting story from the field or a recent project? If so, we would like to know so that we can make these stories available to our community. This is a great opportunity to expand your network, so please don't be shy and let us know about your accomplishments!

Please send the details to the NSFG Early Career Representative Nedra Bonal at nbonal@sandia.gov.

**3. Union Awards, Medals, and Prize Nominations begin 31 January 2014 (from Louise Pellerin)
Deadline for Nominations: 15 March 2014**

UNION AWARDS, MEDALS, & PRIZE nominations begin 31 January 2014. If you have someone in mind that you would like to see nominated from NSFG, review details on the website <http://honors.agu.org/> and contact Lu Pellerin, Nominations Committee Chair, pellerin@greengeophysics.com

4. AGU Voluntary Contribution Campaign: Engage, Impact, Sustain

Each year, generous AGU donors support the advancement of the geosciences and help ensure that AGU can continue to make an impact well into the future. Through the campaigns below and others like it, we hope to uphold the tradition of AGU members guaranteeing the future — of our members and our science — but we need your help to achieve even more and grow even further.

Visit AGU's Development pages (<http://giving.agu.org/funds/>) for more information about any of these funds: **AGU Unrestricted Fund; AGU General Endowment Fund; AGU Canada - Unrestricted Fund; Annual Student Travel Fund.**

5. GEOPHYSICS Special Issue: Coastal Near Surface Geophysics (from Remke Van Dam)

Deadline for Submissions: 28 February 2014

CALL FOR PAPERS, Geophysics Special Issue
Near Surface Geophysics in the Dynamic Coastal Environment: Crossing the Land/Sea Interface

The Near Surface Geophysics Section of SEG is soliciting contributions for a Geophysics special issue on near surface geophysics in the coastal environment. The coastal zone is a dynamic setting, undergoing significant change at many time scales driven by factors such as large storms, rising sea level, and human activity. Both land- and marine-based near-surface geophysical methods can play a significant role in understanding the many processes that impact the coastal zone. This special issue will highlight the latest developments, instruments and techniques in applying near-surface geophysical methods to the coastal zone. It will emphasize as well connections between these methods and both the sedimentary geology of the coastal zone and numerical modeling of the impacting processes.

Guest Associate Editors:

John Goff (goff@utig.ig.utexas.edu) and Jeff Paine (jeff.paine@beg.utexas.edu)

Jackson School of Geosciences, University of Texas at Austin

Interested authors should submit their manuscripts for review no later than 28 February 2014. In addition, the special section editors would like to receive a provisional title and list of authors as soon as possible. Authors should submit via the normal online submission system for Geophysics (<https://mc.manuscriptcentral.com/geophysics>) and indicate that it is a contribution for Crossing the Land/Sea Interface. The submitted papers will be subject to the regular peer-review process, and the contributing authors also are expected to participate in the review process as reviewers.

We will work according to the following timeline:

| | |
|-------------------------------------|------------------|
| Submission deadline: | 28 February 2014 |
| Peer review complete: | 31 July 2014 |
| All files submitted for production: | 20 August 2014 |
| Publication of issue: | Nov-Dec 2014 |

6. INTERPRETATION Special Issue: RIVERS (from Remke Van Dam)

Deadline for Submissions: 15 May 2014

CALL FOR PAPERS, Interpretation Special Issue
RIVERS

Rivers form important reservoirs globally, but their deposits are complicated. Rivers come in a wide variety of styles (e.g., meandering versus braided end-members have been recognized) and may form muddy or sand-dominated successions. Recent advances in seismic geomorphology and seismic attribute analysis have enabled 3D images of fluvial systems worldwide, but this field is still quite new.

Examples of meandering channels and channel belts are common, but braided examples are rare. The identification of simple unit bars versus compound bars is just beginning to be applied to the study of the facies architecture and seismic geomorphology of ancient systems. The editors of Interpretation invite papers on the topic of Rivers for publication in the February 2015 special section to supplement the journal's regular technical papers on various subject areas. Contributions are invited in the areas of

seismic geomorphology and the appearance of river deposits on seismic attributes and impedance inversion, as well as tutorials on geologic processes involved in formation and imaging of rivers in seismic data. We anticipate contributions related to:

- geomorphology and facies architecture of paleorivers and their deposits on seismic data
- seismic attribute analysis for paleoriver characterization
- the appearance of rivers in wireline and image logs
- outcrop analogs to subsurface river deposits
- differentiating river styles: meandering, braided, anastomosed, distributive, tributive
- modeling and scaling of fluvial systems
- fluvial petroleum reservoirs
- mapping of shallow river deposits for engineering and groundwater applications
- GPR studies of river deposits
- acquisition, processing, and imaging workflows to improve subsurface imaging of river deposits

Interested authors should submit manuscripts for review no later than 15 May 2014. In addition, the special section editors would like to receive a provisional title and list of authors as soon as possible. Authors should submit via the normal online submission system for Interpretation (<https://mc.manuscriptcentral.com/interpretation>) and select the Rivers option in the manuscript type dropdown box. The submitted papers will be subject to the regular peer-review process, and the contributing authors are also expected to participate in the review process as reviewers.

The submissions will be processed according to the following timeline:

| | |
|---------------------------------------|-------------------|
| Submission deadline: | 15 May 2014 |
| Peer review complete: | 26 September 2014 |
| Final files submitted for production: | 9 October 2014 |
| Publication of issue: | February 2015 |

Special section editors:

Janok P. Bhattacharya (bhattaj@mcmaster.ca); David Cleveland (david.m.cleveland@exxonmobil.com); Nick Howes (Nick.Howes@shell.com); Steve Hubbard (shubbard@ucalgary.ca); Dale Leckie (leckied@shaw.ca); Kurt Marfurt (kmarfurt@ou.edu); Henry W. Posamentier (henry.posamentier@chevron.com); Mathew Pranter (matthew.pranter@ou.edu); Brian J. Willis (BWillis@chevron.com); Lesli J. Wood (woodl@beg.utexas.edu)

7. Upcoming Conferences and Workshops

7.1 SAGEEP 2014 Registration Opening Soon (from Jutta Hager)

Conference Dates: 16-20 March 2014

Website: <https://www.eegs.org/Annual-Meeting-SAGEEP/SAGEEP-2014>

Online registration for SAGEEP 2014 will open in the next few days. The Program-at-a-Glance is available for viewing on the website along with descriptions of the 4 short courses (2 on Sunday and 2 the following Thursday).

The technical program will feature over 200 oral and poster presentations from Monday through Wednesday afternoon, with topics ranging from A (Agricultural Geophysics) to U (UXO). The conference will formally open with the Keynote Speaker, Bill Eustes, Associate Professor in Petroleum Engineering and Distinguished Lecturer at the Colorado School of Mines, with a presentation on the subsurface exploration on Mars. Bill's talk will focus on drilling below the Mars surface, as well as the geophysical exploration scheduled to start in 2015. The Keynote Session will be followed by a Special Session containing the best of 2013 EAGE/NSGD. Tuesday and Wednesday will include exciting luncheon presentations by two eminent geophysicists working in New England. On Tuesday, Professor John Ebel from Boston College will present a talk summarizing the history of Boston's expanded fill area and focusing on the soil amplification and liquefaction potential in the area. On Wednesday, Dr. Steven Arcone of the Cold Regions Research and Engineering Laboratory (CRREL) will discuss his ground penetrating investigation of the sub bottom sediment and bedrock characteristics of Mirror Lake in Woodstock, New Hampshire. Sunday, March 16th, will showcase courses on Google Earth and Induced Polarization Applications. Thursday will have MASW Fundamentals Plus and a Utility Locating Technologies Overview. Other SAGEEP activities will include a Sunday North Shore field trip, Sunday night Icebreaker, Monday afternoon Outdoor Demonstration, Monday evening Student Event, and Tuesday evening Special Event set up by our Exhibits Organizer Mickie Allen.

7.2 Multichannel Analysis of Surface Wave (MASW) Workshop (from Mary Brohammer)

Conference Date: 24-25 April 2014

Location: Kansas Geological Survey (KGS), Lawrence, Kansas

Conference Website: <http://www.kgs.ku.edu/software/surfseis/workshops.html>

The two-day MASW workshop will provide opportunity for geo-professionals, geoscientists, and graduate students to gain knowledge about acquisition, analysis, and interpretation of the seismic Rayleigh surface waves. The learning process will be facilitated by the use of SurfSeis software (<http://www.kgs.ku.edu/software/surfseis/index.html>). The workshop is designed to address the current approaches for analyzing seismic data from both active and passive sources for obtaining shear-wave velocity (V_s) estimates for the near-surface.

On Day 1 a theoretical overview of the MASW method (active and passive) will be presented, participants will be familiarized with the SurfSeis software package, and field data acquisition from both active and passive sources is scheduled take place (weather permitting).

Day 2 will continue with the theoretical MASW overview covering surface-wave inversion, multi-mode interpretation and inversion, inversion sensitivity, use of a-priori information and quality of inversion results, latest advancements for dispersion-curve imaging—such as the high-resolution linear Radon transform (HRLRT), challenging dispersion-curve patterns, and more. Day-1 acquired seismic data will be analyzed. Participants are encouraged to bring samples of their own data for discussion as time permits. Attendees are expected to bring their own laptops.

7.3 First Applied Shallow Marine Geophysics Conference (from Mark Vardy)

Conference Date: 14-18 September 2014

Location: Athens, Greece

Conf. Website: <http://www.eage.org/events/index.php?evp=12577&ActiveMenu=2&Opendivs=s3>

Extended Abstract Deadline: 15 April 2014

Sponsored by EAGE, the conference aims to bring together practitioners and researchers from industry and academia who develop and apply geophysical methods to the seafloor and shallow overburden. While major recent advances have been made in reservoir geophysics, the shallow overburden has traditionally received significantly less attention, despite having a heavy influence on wave propagation to deeper reservoir targets and being host to a number of geohazards. These include shallow water flows, shallow gas, hydrates, landslides, glaciotectonics, and sediment flows, along with geomorphological features such as pockmarks, pipes, diapirs, channels, canyons, boulders, ploughmarks, faults, and seepage mounds.

The technical committee strongly encourage papers that demonstrate the current state-of-the-art and present lessons learned from case studies. This will set the scene to identify new trends and technologies required to help in geophysical site characterisation and geohazard assessments: from survey design and acquisition to quantitative and integrated data interpretation techniques. For the full conference announcement see:

www.eage.org/images/cms/files/Conferences/NSG14%20SMG%20first%20announcement.pdf

7.4 Webinar on the Application of Geophysics to Agriculture: Methods Employed (from Barry Allred)

Webinar Date: 3:00-4:30 (EST), 18 February 2014

Website: www.ag-geophysics.org

A webinar on the application of geophysics to agriculture will be offered on February 18, 2014, Tuesday afternoon, from 3:00 - 4:30 Eastern Time (2:00 - 3:30 Central Time, 1:00 - 2:30 Mountain Time, 12:00 - 1:30 Pacific Time). This first in a series of agricultural geophysics webinars will focus on the near-surface geophysical methods presently being used for agricultural purposes, which include resistivity, self-potential, electromagnetic induction, ground penetrating radar, dielectric sensors, VIS/NIR/MIR spectrometry, gamma ray spectrometry, mechanical soil compaction sensors, and ion selective potentiometry.

Four presenters will provide a short (5 minute) overview of agricultural geophysical methods during the first 30 minutes of the webinar. In the last hour of the webinar, the four presenters will answer questions from the audience. There will be no cost for participating in this webinar; however, since enrollment may be limited, participants will need to register at <http://www.ag-geophysics.org> in order to obtain webinar login details. One week prior to the webinar, extended video format versions of the four presentations (~ 20 minutes each) will be posted for viewing on YouTube and www.ag-geophysics.org.

7.5 SEG Near Surface Modeling and Imaging Workshop

Conference Date: 8-9 March 2014

Location: Manama, Bahrain

Conference Website: www.seg.org/meetings/Bahrain2014

Early Registration Deadline: 8 February 2014

This workshop will focus on advances in characterizing and modeling the near surface and imaging with near surface models to solve the dual challenge of improving accuracy and integrating models and methods. Workshop session topics: Emerging Technologies, Tomography & Statics, Surface Waves, Imaging, Non-Seismic, and Inversion.

7.6 NAGT/Cutting Edge Teaching and Early Career Workshops

Teaching GeoEthics Across the Curriculum (<http://serc.carleton.edu/geoethics/index.html>)

10-13 June 2014; *Application Deadline: 3 February 2014*

Undergraduate Research in Earth Science Classes: Engaging Students in the First Two Years

(http://serc.carleton.edu/NAGTWorkshops/undergraduate_research/workshop_2014/index.html)

10-13 August 2014; *Application deadline: 1 March 2014*

HIGHLY RECOMMENDED FOR STUDENTS:

Preparing for an Academic Career in the Geosciences

30 June – 3 July 2014; *Application Deadline 1 March 2014*

HIGHLY RECOMMENDED FOR NEW FACULTY:

Early Career Geoscience Faculty: Teaching, Research, and Managing Your Career

22-26 June 2014 with an optional trip to NSF on 27 June 2014 - University of Maryland, College Park

Application deadline: 1 March 2014

There are other workshops with deadlines in February, so be sure to check out the NAGT/Cutting Edge and InTeGrate Workshop Schedules.

- <http://serc.carleton.edu/NAGTWorkshops/workshops.html>
- <http://serc.carleton.edu/integrate/workshops/index.html>

InTeGrate has an open call for proposals for Implementation Programs. Institutions, or clusters of institutions, are invited to apply for grants of up to \$50,000 to develop and evaluate programs that model innovative ways of 1) increasing the number and diversity of students developing Earth literacy and/or 2) preparing a diverse workforce equipped to bring geosciences to bear in addressing societal issues. More details at: http://serc.carleton.edu/integrate/participate/ip_call.html

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

Stephen Moysey (smoysey@clemsn.edu)

DEADLINE: Material must be received 5 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](#) will receive Twitter announcements, so make sure that you sign up!