



**American Geophysical Union  
Near-Surface Geophysics Focus Group (NSFG)  
Newsletter: August 2016**

**In Brief:**

**1. AGU Updates**

- 1.1 **Submit Your Abstracts for 2016 Fall Meeting**
- 1.2 **Student Travel Grants for Fall Meeting**
- 1.3 **Share Your Science at Exploration Station During Fall Meeting**
- 1.4 **Opportunity to Share Your Work with K–12 Educators at the GIFT Workshop During Fall Meeting**
- 1.5 **Help NSFG Benefit from the AGU Section and Focus Group Incentive Program!**
- 1.6 **Student Spotlights and Research Highlights**

**2. Journal Information and Special Issue Call for Papers**

- 2.1 **Special Monograph on Levees and Dams: Advances in Geophysical Monitoring and Characterization**

**3. Tech-Transfer Courses and Training**

- 3.1 **Multichannel Analysis of Surface Waves (MASW) Workshop**

**4. Upcoming Conferences and Workshops**

- 4.1 **Meetings Overview**
- 4.2 **Save the Date: The 3rd AGU-SEG Hydrogeophysics Workshop: Imaging the Critical Zone**

**5. Position Announcements**

- 5.1 **Postdoc in Applied and Environmental Geophysics at University of Lausanne**

Recent announcements of interest to the near-surface community (conferences, academic positions, graduate student opportunities, etc.) can be found on the [AGU Near-Surface Geophysics Focus Group website](#).

**Early career scientists:** Check out the [NSFG early career website](#).

Follow NSFG on [Facebook](#) and Twitter [@NS\\_AGU!](#)

## 1. AGU Updates

### 1.1 Submit Your Abstracts for 2016 Fall Meeting

The [abstract submission site](#) is now open, and the final deadline for abstracts is 3 August.

Primary and cross-listed near-surface geophysics sessions include the following:

- [NS001: Advances in Exploration Geophysics](#)
- [NS002: Advances of Airborne Survey in Near Surface Geophysics: From Geologic Framework Studies to Hazard Investigation](#)
- [NS003: Frontiers of Uncertainty Estimation in Geophysical Inversion](#)
- [NS004: Geophysical and Geotechnical Constraint on Geomechanical Models of Hydraulic Fractures](#)
- [NS005: Geophysical Characterization of Cold Regions Hydrology and Permafrost Dynamics](#)
- [NS006: Geophysical Methods for Groundwater Evaluation and Management](#)
- [NS007: Geophysics in Laboratory Meter-Scale Experiments](#)
- [NS008: Innovative Applications of Geophysics to Agriculture for Environmental and Economic Sustainability](#)
- [NS009: Integrating Surface Geophysical Methods into Multi-scale Investigations of Surface and Groundwater Connectivity](#)
- [NS010: Near-Surface Applications to Soil Processes and Dynamics](#)
- [NS011: Near Surface Geophysics General Contributions](#)
- [NS012: Time-Lapse Geophysical Studies in Coastal Areas](#)
- [ED003: Approaches That Facilitate Learning in Applied Geophysics](#) (You can submit an abstract to this ED session and still be first author on another abstract)
- [GP004: Electromagnetic Imaging of Natural and Engineered Fracture Systems](#)
- [H006: Advances in Petrophysics for Hydrogeophysics and Near Surface Geophysics](#)
- [H012: Advancing Ecohydrology with Geophysics](#)

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### 1.2 Student Travel Grants for Fall Meeting

Travel grants are available to support students presenting at the Fall Meeting! After submitting an abstract, students may apply for a travel grant of up to \$500 (United States/Canada) or \$1000 (international)! The deadline is 10 August 2016. For more information, please go to the [student travel grant website](#).

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### 1.3 Share Your Science at Exploration Station During Fall Meeting

[Exploration Station](#) is an annual event that takes place at AGU's Fall Meeting. It provides a venue for the local community and AGU members to come together to share the excitement of science. The event is an open house for San Francisco families, teachers, and children (as well as Fall Meeting attendees and their families) to learn about the exciting work currently occurring in Earth and space sciences. During the event, participants have a chance to meet scientists, do hands-on science, and take home fun resources collected during their visit. If you're interested in presenting at Exploration Station, please read the [FAQ](#) and email [exploration-station@agu.org](mailto:exploration-station@agu.org) by **22 August 2016**. All costs (exhibitor space, electricity, wireless internet) for the event other than shipping and handling of materials are covered by AGU. Watch the [video](#) or read this [Eos article](#) to learn more about getting engaged with the public at Fall Meeting.

#### **1.4 Opportunity to Share Your Work with K–12 Educators at the GIFT Workshop During Fall Meeting**

AGU is now accepting proposals from teams of at least one scientist and one education specialist to present during the [Geophysical Information for Teachers](#) (GIFT) Workshop at AGU Fall Meeting. This workshop enables scientists to work closely with an education specialist to develop and share material with K–12 teachers and informal educators. Check out material from the [2015 workshop](#) to get some ideas. Each team of presenters will receive one free full-week registration to the AGU Fall Meeting. Note this is in addition to the free registration to AGU for all K–12 educators. [Applications](#) are now open and due **31 August 2016**.

Questions about the GIFT workshop? E-mail [GIFT@agu.org](mailto:GIFT@agu.org).

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#### **1.5 Help NSFG Benefit from the AGU Section and Focus Group Incentive Program!**

Please consider giving to AGU so that NSFG can take advantage of the 2016 Donor Incentive Program. This tax-deductible gift will not only assist AGU but will support our focus group's initiatives. If only 5% of our members (i.e., about 20 people) give \$50 or more in 2016, AGU will provide NSFG with \$1000. If 10% of our members give \$50 or more, AGU will provide \$3000! Given that we are a small focus group, these extra funds would make a real impact on our efforts in support of students and early career scientists. Any donations to AGU qualify, regardless of which program you are supporting! To learn more, please visit the [incentive program website](#) or contact AGU's Development Department via [email](#) or 202-777-7434.

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#### **1.6 Student Spotlights and Research Highlights**

Interested in being highlighted, or know a student who should be? Please email [Sarah Morton](#) for more information about the Student Spotlight.

We are also seeking research highlights that showcase use of near-surface geophysics in other [AGU sections and focus groups](#). If you are interested in writing a short, one-page highlight, please contact [Burke Minsley](#).

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## **2. Journal Information and Special Issue Call for Papers**

### **2.1 Special Monograph on Levees and Dams: Advances in Geophysical Monitoring and Characterization**

This peer-reviewed volume will inform policy makers, engineers, and Earth scientists about the current and emerging role of geophysics in addressing environmental processes, assessments, and policy directions related to new and existing dams and levees.

Until recently, much of the focus of geophysicists has been confined to characterization and remediation, without consideration of the complex relationship between natural processes (e.g., floods) and human activities associated with the design and ongoing dependence on these structures. It is important to enhance communications between geoscientists, engineers, and policy makers to improve the way in which these structures are managed.

Over time, unexpected changes in the physical properties of these man-made structures may or may not compromise their integrity, and such questions require creative (and preferably noninvasive)

assessment approaches. Monitoring and remediation of existing structures can be challenging because, often, failures are at a smaller scale and recertification procedures are at a larger scale than envisaged during construction or planning. New, efficient risk management approaches may benefit greatly from geophysical methods that can address these scaling issues.

We encourage innovative and substantiated geophysics-related ideas. Potential topics include, but are not limited to, placement of geophysical tools within the management policies of levees and dams; small and mid-sized laboratory experimental approaches; field characterization studies using electromagnetic, seismic, potential field, and integrated methods; inverse modeling; regional overviews as conditioned by climatic zones; statistical analyses and tools for improved management processes such as age strengthening or weakening of structures; and monitoring of important processes such as piping and fluid flow.

We expect the monograph to include 10–20 book chapters, each about 8–20 printed pages in length, containing color and/or black-and-white figures and tables.

**Timetable:** Submission deadline: 1 October 2016; Reviews and final manuscript: 1 April 2017; Expected publication: October 2017.

For suggestions on manuscript preparation, please see the [Springer submission guidelines](#). Upon submission of manuscript (email), please include the contact information for four potential reviewers.

Juan M. Lorenzo and William E. Doll, Editors. For all correspondence, please email [gllore@lsu.edu](mailto:gllore@lsu.edu), Subject: DAL

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### 3. Tech-Transfer Courses and Training

#### 3.1 Multichannel Analysis of Surface Waves (MASW) Workshop

**Dates:** 19 August 2016

**Registration cost:** free

**Location:** [Kansas Geological Survey](#), Lawrence, Kans.

**Website**

The 1-day accelerated workshop will focus on processing and advanced topics. We expect this class will be of most interest to either those who have been using SurfSeis for a while or those who *haven't* used SurfSeis for a while and want to get up to speed with the newest version of SurfSeis (v5). Contact the SurfSeis office ([SurfSeis@kgs.ku.edu](mailto:SurfSeis@kgs.ku.edu)) for more information and/or for a registration form.

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## 4. Upcoming Conferences and Workshops

### 4.1 Meetings Overview

| Meeting (click to go to website)  | Location                        | Meeting Dates                 | Submission    | Registration                             |
|---|---------------------------------|-------------------------------|---------------|--|
| <a href="#">ASEG 25th International Geophysical Conference and Exhibition</a> | Adelaide, Australia             | 21–24 August 2016             | <i>Closed</i> | <i>Open</i>                              |
| <a href="#">35th International Geological Congress (IGC)</a>                  | Cape Town, South Africa         | 27 August to 4 September 2016 | <i>Closed</i> | <i>Open</i>                              |
| <a href="#">EAGE Near Surface Geoscience 2016</a>                             | Barcelona, Spain                | 4–8 September 2016            | <i>Closed</i> | Online registration ends: 26 August 2016 |
| <a href="#">Geological Society of America Annual Meeting</a>                  | Denver, Colorado                | 25–28 September 2016          | <i>Closed</i> | Early registration ends: 22 August 2016  |
| <a href="#">Society of Exploration Geophysicists Annual Meeting</a>           | Dallas, Texas                   | 16–21 October 2016            | <i>Closed</i> | Early registration ends: 18 August 2016  |
| <a href="#">AGU Fall Meeting</a>  | San Francisco, California       | 12–16 December 2016           | 3 August 2016 | <i>TBA</i>                               |
| <a href="#">SAGEEP 2017</a>   | Denver, Colorado                | 19–23 March 2017              | <i>TBA</i>    | <i>TBA</i>                               |
| <a href="#">3rd AGU-SEG Hydrogeophysics Workshop</a>                          | Stanford University, California | 24–27 July 2017               | <i>TBA</i>    | <i>TBA</i>                               |

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### 4.2 Save the Date: The 3rd AGU-SEG Hydrogeophysics Workshop: Imaging the Critical Zone

**24–27 July 2017**

In this workshop, we will bring together hydrogeophysicists and other Critical Zone scientists to explore new ways to work together, using recent advances in hydrogeophysics to address key scientific questions about the Critical Zone.

Organizing Committee: Rosemary Knight and Kristina Keating (co-chairs), Anja Klotzsche, Kate Maher, Daniella Rempe, Kamini Singha

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## 5. Position Announcements

### 5.1 Postdoc in Applied and Environmental Geophysics at University of Lausanne

The Institute of Earth Sciences at the University of Lausanne, Switzerland, has an opening for a postdoctoral scientist in the field of applied and environmental geophysics. The position is available as early as 1 January 2017.

The successful candidate will be expected to initiate and independently carry out his/her own research projects, as well as cosupervise Ph.D.-level thesis projects. The ideal applicant will have a solid mathematical and statistical background, significant numerical computing experience, and a strong interest in the application of geophysical methods to hydrological problems.

For further details about the position, please see [http://www.people.unil.ch/james.irving/irving\\_postdoc\\_ad\\_2016.pdf](http://www.people.unil.ch/james.irving/irving_postdoc_ad_2016.pdf)

Interested candidates should email their CV, list of publications, short statement of research interests, and the names and addresses of three referees by 1 **September 2016** to [Dr. James Irving](#).

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**To contribute material to the NSFG newsletter, send an email to [Burke Minsley](#).**

**Deadline:** Material must be received five full business days before the first of the month.

**Guidelines for submissions:** All members are welcome to submit content of interest to the near-surface community. Please keep messages brief and provide contact information and (if available) a Web address for additional information.

**Get your message out to NSFG members faster.**

You 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 who follow [@NS\\_AGU](#) will receive Twitter announcements, so make sure that you sign up!