Having trouble viewing this email? Click here

American Geophysical Union

March 2012 Newsletter of the AGU Near-Surface Focus Group

1. AGU 2012 Fall Meeting: session proposals and important dates
   1.1. Call for 2012 Session Proposals Now Open
   1.2. Important dates
2. AGU NS FG Outstanding Student Paper Award (OSPA) Fall 2011 AGU Meeting
3. AGU Congressional fact sheet input
4. Announcement: Near Surface Focus Group Bylaws.
5. Reminder: SEG-AGU Hydrogeophysics Workshop: abstract submission deadline 21 March 2012
6. Announcement: SAGEEP 2012 Preliminary Program
7. Announcement: SAGEEP 2012 Short Courses and Workshops
8. Reminder: European Meeting of Environmental and Engineering Geophysics
9. Call for Papers: EAGE Workshop on Dead Sea Sinkholes, March 15 deadline
10. Reminder: AGU Science Policy Conference, Washington, DC, 30 April-3 May 2012
11. Reminder: Summer of Applied Geophysical Experience (SAGE) 2012
12. Webinar: Full-Waveform Inversion of GPR Data by Jan van der Kruk
13. Call for papers: Annals of Glaciology: The Geophysics of the Cryosphere and Glacial Products
14. Call for papers: Journal of Environmental and Engineering Geophysics: Time Domain Electromagnetics
15. Open positions:
   15.1. Postdoctoral Researcher Position in Applied Geophysics, University of Potsdam, Germany
   15.2. Post-doctoral Fellowship in Geochemical Modeling, French Geological Survey

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.

AGU NS Membership as of March 2012:
Primary affiliation: 793 members; Secondary: 2881 members

==========

1. Announcement: AGU 2012 Fall Meeting: session proposals and important dates

1.1. Call for 2012 Session Proposals Now Open

AGU is excited to announce that the call for session proposals for the 45th annual Fall Meeting is open as of 20 February. The deadline for submissions is 20 April. Additional information on submission policies and guidelines can be found at 2012 AGU Fall Meeting Web site.

1.2. Important dates

20 February: Session proposal site opens
20 April: Session proposal deadline
12 June: Abstract and Town Hall submission site opens
12 July: Registration and Housing opens
6-10 December: Fall Meeting (note that this year the meeting runs over the weekend from Thursday, 6 December through Monday, 10 December)

---

2. AGU NS FG Outstanding Student Paper Award (OSPA) Fall 2011 AGU Meeting (from George Tsoflias)

Student participation was strong again at the Fall meeting with 46 student presentations in 13 Near Surface sessions (15% increase over the 2010 Fall meeting). Many excellent oral and poster presentations were given covering a broad spectrum of NS research areas. Based on the presentation judging scores provided by the volunteer judges, the NS OSPA committee selected the two highest ranked presentations to receive Outstanding Student Presentation Awards. In addition, three highly ranked presentations were identified as deserving special mention.

The Fall 2011 AGU Meeting Near Surface Focus Group OSPA winners are:

- Indrajit Das (Stanford University, USA) presented "Long Period, Long Duration Seismic Events During Hydraulic Fracture Stimulation of a Shale Gas Reservoir", co-authored by Mark Zoback.

- Ahmad Ali Behroozmand (Aarhus University, Denmark) presented "Joint Inversion of MRS and TEM Data", co-authored by Esben Auken, Gianluca Fiandaca, and Anders Vest Christiansen.

Meritorious presentations were given by:

- Trevor Irons (Colorado School of Mines, USA) presented "Comparing Flowmeter, Aquifer Test, and Surface Nuclear Magnetic Resonance Data in Central Nebraska", co-authored by Jared D Abraham, James C Cannia, Greg Steele, Christopher M Hobza, Yaoguo Li, and

Jason R McKenna.

- Adrian Flores Orozco (University of Bonn, Germany) presented "Delineation of Subsurface Hydrocarbon Contamination at a Former Hydrogenation Plant Using Spectral Induced Polarization Imaging", co-authored by Andreas Kemna, Christoph Oberdoerster, Ludwig Zschornack, Carsten Leven, Peter Dietrich, and Holger Weiss.

- Jessica Reeves (Stanford University, USA) presented "InSAR imaging of seasonal groundwater change in the San Luis Valley, Colorado", co-authored by Rosemary Knight, Howard Zebker, and Willem Schreuder

We would also like to extend our appreciation and many thanks to the volunteer judges that evaluated student presentations: Charly Bank, Xavier Garcia, Andreas Hoerdt, Juan Lorenzo, Andrew Parsekian, Linda Rowan, Guang Shi, Lee Slater, Flora Sun, Jan van der Kruk, Yuxin Wu, Burke Minsley, Denise Hills, Nedra Bonal, Christina Morency, Ramon Carbonell, Seth Hanes, Ahmed Lachhab, Stephen Moysey.

From the OSPA coordinators: George Tsoflias, Xavier Comas and Lu Pellerin

---

3. AGU Congressional fact sheet input (from Lu Pellerin)

AGU is preparing fact sheets about the practical benefits of federally funded geophysical research for distribution to members of Congress. We are highlighting examples of recent progress made in different fields to demonstrate the value of research to taxpayers and promote continued funding of research programs. It would be wonderful to have your input about what you think might be a few of the most notable and recent findings in your field that have been funded by federal research grants. Please feel free to send brief summaries to Lu Pellerin or George Tsoflias.

---

4. Announcement: Near Surface Focus Group Bylaws (from Lu Pellerin)

The NS FG Bylaws, approved by the executive committee, are posted on the NS FG Web site.

---

5. Reminder: SEG-AGU Hydrogeophysics Workshop (from Jan van der Kruk)

SEG-AGU Hydrogeophysics Workshop, 8-11 July 2012, Boise State University, Boise, Idaho, U.S.A.; Abstract submission deadline: 21 March 2012; Advanced registration deadline: 7 June 2012
This workshop addresses current hydrogeophysical approaches for determining,

predicting, and studying hydrologic properties and processes in both the saturated and unsaturated zones, at scales ranging from centimeters to watersheds. Through presentations of original research in our "General Sessions", and analysis and interpretation using shared datasets in our "Homework Sessions", the workshop will highlight the state of the science and critical future directions. In order to promote discussion, all accepted abstracts (for General and Homework Sessions) will be presented as posters, with a 3-5 minute oral presentation as an introduction. After viewing of posters, all sessions will reconvene for a panel-led discussion. General Sessions: 1) Characterizing Near-Surface Structure and Properties, 2) Advances in Monitoring and Time-Lapse Imaging of Subsurface Processes, 3) Thinking About Scaling Up: Geophysical Methods at the Watershed Scale. Homework Sessions: 1) Quantifying Noise and Uncertainty in ERT Data, 2) Tomography Bakeoff Using Borehole Seismic and GPR Datasets, 3) Designing the Perfect Field Experiment.

To download the homework datasets, visit the Hydrogeophysics 2012 Workshop Web page.

For more information, visit the SEG-AGU 2012 Web site.

---

6. Announcement: SAGEEP 2012 Preliminary Program (from Jackie Jacoby)

The Preliminary Program for the SAGEEP 2012 annual meeting is now available.

---

7. Announcement: SAGEEP 2012 Short Courses and Workshops (from Jeff Paine)

Three short courses and three workshops are being held in conjunction with SAGEEP 2012 in Tucson, Arizona, 24-29 March. More information about the short courses, workshops, and registration can be found at the SAGEEP 2012 Web site.

SAGEEP 2012 Short Courses

Surface Waves Are for Everyone (Active and Passive MASW). Date: Saturday, 24 March 2012, 8 a.m. to 5 p.m. Instructor: Julian Ivanov

Advanced Surface Wave (MASW) Methods. Date: Sunday, 25 March 2012, 10 a.m. to 5 p.m. Instructor: Julian Ivanov

Electrical Resistivity/IP/SP for Environmental and Engineering Applications. Date: Sunday,

25 March 2012, 8 a.m. to 5 p.m. Instructor: Bradley J. Carr

SAGEEP 2012 Workshops

Hydrofracking 101: What is it, What are the Issues, and How Can Geophysics Help?. Date: Thursday, 29 March 2012, 8 a.m. to 5 p.m. Convenors: Mike Jacobs, Chip Groat, Jeffrey G. Paine; and Bruce Smith. Titles and abstracts (200 words or less) for this workshop are being accepted until 27 Feb. Contact: Jeffrey G. Paine or Bruce Smith if you would like to participate.

Seismic Refraction Methods: Unleashing the Potential and Understanding the Limitations. Date: Thursday, 29 March 2012, 8 a.m. to 5 p.m. Convenors: Bill Doll, Seth Haines, and Colin Zelt. Those who are interested in contributing a presentation should send a title and 200-word abstract to Seth Haines no later than 27 February 2012.

Trends in Resistivity and IP for Shallow Applications. Date: Thursday, 29 March 2012. Contact Norman Carlson if you are interested in participating in this workshop.

---

8. Reminder: European Meeting of Environmental and Engineering Geophysics
(from Roger Guerin)

Near Surface Geoscience 2012 - the 18th European Meeting of Environmental and Engineering Geophysics

Under the heading of Near Surface Geoscience, the 18th 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. Through sharing ideas and intellectual cross-fertilisation, this event has the potential to benefit all geoscientists, including those whose primary focus is petroleum. The aim of this year is to broaden the scope of the Near Surface Geoscience Conference and thus to increase the interest of attendees and exhibiting companies.

Date: 3-5 September 2012

Papers deadline: 15 April 2012

Opening registration: 20 March 2012

Deadline for early registration: 15 July 2012

Location: Paris, FRANCE

Submit your paper to Near Surface Geoscience 2012!

---

9. Call for Papers: EAGE Workshop on Dead Sea Sinkholes, March 15 deadline

Call for papers is now open for the EAGE Workshop on Dead Sea Sinkholes: Causes, Effects & Solutions (23-26 September 2012, Amman, Jordan). The deadline is 15 March 2012.

For further details, visit the EAGE Workshop on Dead Sea Sinkholes Web site.

---

10. Reminder: AGU Science Policy Conference, Washington, DC, 30 April-3 May 2012

AGU Science Policy Conference
30 April - 3 May
Ronald Reagan Building
Washington, DC

Dates:
Housing Deadline: 30 March
Early Registration Deadline: 30 March

Highlights:
- Science communication workshop hosted by AGU and the National Geographic Society
- Evening Reception on Capitol Hill
- ePosters available

Speakers include:
- Dr. Jane Lubchenco, Administrator, National Oceanic and Atmospheric Administration
- Governor Jim Geringer, Director, Environmental Systems Research Institute, Inc.
- Dr. Susan Cutter, Carolina Distinguished Professor of Geography and Director, Hazards Research Lab, University of South Carolina
- Rear Admiral Frederick Kenney, Judge Advocate General and Chief Counsel, U.S. Coast Guard
- Click here to view the full AGU Science Policy Conference program

For more information:
- AGU Science Policy Conference 2012 Web site
- Twitter: @AGUSciPolicy, or #AGUSPC12

---

11. Reminder: Summer of Applied Geophysical Experience (SAGE) 2012

We are pleased to again announce our Summer of Applied Geophysics Experience (SAGE) program for 2012, our 30th year!

The SAGE program is a three to four week graduate and advanced undergraduate course of instruction and research in exploration geophysics based in Santa Fe, New Mexico, USA. SAGE students, faculty, teaching assistants and visiting scientists acquire, process and interpret reflection/refraction seismic, MT/EM, GPR, gravity & magnetics data at a shallow archeological site and at the sedimentary basin scale in the Rio Grande rift. We particularly encourage 1) qualified students who are U. S. citizens or Permanent Residents (PR) who will have completed their junior year and the requisite physics and math before SAGE, and 2) qualified U. S. graduate students in all stages of their careers to apply. All qualified applicants, including International and Professional, are welcome.

For students qualifying as US/PR undergraduates, SAGE will begin on Sunday, 17 June (arrival on Saturday, 16 June). Stipend and travel support will be automatic if accepted, and the $500 fee will be waived through an NSF Research Experience for Undergraduates (REU) grant. International and all graduate students will arrive on 19 June. The cost is $500 (includes room and board), of which $100 is due with the application. For REU students, SAGE will extend through evening dinner on Wednesday, 11 July. Graduate students depart after 1:00 PM, 11 July.

The application deadline for SAGE 2012 is 5:00 PM local time on Friday, 30 March. A letter of interest, two references, proof of insurance, and complete transcripts (informal OK) are required. For application, reference forms, further details and a description of the program refer to

SAGE 2012 Web site or contact Georgia at +1 (505) 663-5291 or e-mail. A SAGE 2012 one-page flyer is available (please pass on to students who might be interested).

Highlights of the SAGE 2010 and SAGE 2011 programs are available.

Please note that, in recognition of the 30th year of the SAGE program, we will be hosting an event at the SEG meeting in November and at the AGU Fall Meeting in December. We hope to see you there. More details will be provided later.

---

12. Webinar: Full-Waveform Inversion of GPR Data by Jan van der Kruk

You are very welcome to attend the upcoming virtual class on Full-Waveform Inversion of GPR Data!

Wednesday, 21 March 2012

11:00 AM - 12:30 PM CST

Instructor: Jan van der Kruk

Registration for the class is needed! Please visit the SEG Virtual Classes Web page for more information.

---

13. Call for papers: Annals of Glaciology: The Geophysics of the Cryosphere and Glacial Products (from Bernd Kulessa)

Dear colleagues,

We are now seeking submissions to an Annals of Glaciology volume themed ' The Geophysics of the Cryosphere and Glacial Products'. The submission system is now open, and will remain so until Friday, 11 May 2012.

The Editorial Board cordially invites contributions from all areas of geophysics and associated disciplines as applied or relevant to present-day ice masses, ice cores, sea ice, or frozen ground or snow. We are also keen to receive contributions on the application of geophysical and associated techniques to glacial materials and products to reconstruct past ice masses, dynamics, and hydrology.

You may submit your manuscript online using the submission system of the International Glaciological Society and find specific information on the Annals of Glaciology as an ISI - Web of Science listed thematic journal.

Please do not hesitate to contact me (Bernd Kulessa, Chief Editor) if I can provide any further assistance or information.

We look forward to your submission!
Kind regards,
Bernd

---

14. Call for papers: Journal of Environmental and Engineering Geophysics: Time Domain

Electromagnetics (from Janet Simms)

The Journal of Environmental and Engineering Geophysics (JEEG) announces a Call for Papers for a special issue on Time Domain Electromagnetics. This issue is scheduled for publication in March 2014.

The special issue editor is Antonio Menghini, Aarhus Geophysics, Denmark. Sponsorship of this issue is still open. The main themes will focused on:

- New developments in equipment
- Data acquisition, modeling, and inversion
- Case histories, including:
- hydrogeology (fresh-water detection, seawater encroachment)
- engineering (sinkholes, slope stability, rock fracturing)
- environment (leachate and pollutants detection, waste disposal, UXO detection, permafrost study)
- exploration (oil and mining)
- Airborne Time Domain EM

International contributions are encouraged. The special issue will accommodate eight papers, but all accepted papers will be considered for publication in other JEEG issues.

Papers may be submitted through the JEEG submission site. Indicate in the cover letter that the paper is for consideration in the TDEM special issue. The deadline for submissions is 28 February 2013.

Questions may be directed to:
Special Issue Editor-Antonio Menghini
JEEG Editor-Janet Simms

---

15. Open positions:

15.1. Postdoctoral Researcher Position in Applied Geophysics, University of Potsdam, Germany (from Jens Tronicke)

The Applied Geophysics group at University of Potsdam has an immediate opening for a full-time postdoctoral researcher within the area of applied and near-surface geophysics. The appointment will be for an initial period of three years with the possibility of an extension for another three years. Salary is according to the German public pay scale (TV-L E 13).

Candidates must hold a doctoral degree in geophysics (or a closely related field) and must

have a strong methodological background in near-surface geophysical techniques including their innovative application (e.g., in archaeology, civil engineering and/or hydrology). We are looking for a highly motivated individual with strong analytical, experimental and methodological skills. The successful candidate will be expected to initiate and perform his/her own research projects including the acquisition of third-party funding and to contribute to the teaching of applied geophysics courses within the Bachelor and Master programs offered at Potsdam University.

We are a dynamic research group with a focus on developing geophysical techniques (such as ground-penetrating radar, electrical resistivity and seismic methods) to explore and characterize the shallow subsurface. Our institute is well equipped including a broad range of modern geophysical equipment. Further information regarding our institution including our research group can be found at the University of Potsdam Web site.

University of Potsdam is an equal opportunity employer. Review of applications will begin on 1 April 2012 and continue until the position is filled. To apply please submit a cover letter, your Curriculum Vitae, list of publications and the names, telephone numbers and e-mail addresses of two referees to:

Prof. Dr. Jens Tronicke
Institut für Erd- und Umweltwissenschaften
Universität Potsdam
Karl-Liebknecht-Str. 24
14476 Potsdam
Germany

15.2. Post-doctoral Fellowship in Geochemical Modeling, French Geological Survey

BRGM, the French Geological Survey, is seeking applications for a one-year Post-doctoral Fellowship starting at the beginning of April 2012 in the field of geochemical modeling and specializing in the characterization of the surface properties of cylindrical nanoparticles (NPs). The successful applicant will work within the Department of Environment and Innovative Processes and will contribute to the development of a geochemical modeling tool for predicting the surface charge and zeta potential of highly anisotropic NPs of various nature (TiO2, NTC, ZNO) and under different physico-chemical conditions of surrounding water (pH, ionic strength).

For reactive transport modeling purposes, NPs are generally assumed to be spherical. In reality, however, this is rarely the case. It is therefore crucial to take into account their true form and particularly their anisotropy for their reactive transport modeling in porous media.

The zeta potential is a physico-chemical parameter of paramount importance for characterizing the surface properties of electrically charged NPs. Indeed, NP-NP and NP-

rock electrostatic interactions can be described using the zeta potential. However, this parameter remains ill-constrained because of the difficulty involved in converting electrophoretic mobility measurements to zeta potential data due to (i) nanometric size, (ii) surface conductivity, and (iii) anisotropy of elementary particles. The aim of the Post-doctoral Fellowship is to model surface complexation reactions and to compare predicted surface charges and zeta potentials with data inferred from measurements (potentiometric titration, electrophoresis). Using relevant theories, a physico-chemical model will be developed for the interpretation of electrophoretic mobility measurements

The minimum requirement is a Ph.D. in geochemistry specialized in surface properties modeling. The successful candidate should have sound programming skills, preferably in Matlab, and in-depth knowledge of electrokinetic phenomena. The appointment will begin as soon as possible. The salary is €32,000 per year (paid on the basis of 13 months).

Applications, including a CV, copies of two relevant publications, and the names, e-mails, and phone numbers of three referees should be sent to Dr. Philippe Leroy, BRGM, Water Department, 3 Avenue Claude Guillemin, 45060 Orléans Cedex 2, France. The deadline for applications is 30 March 2012.

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

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.

Send to a Colleague