

November 2008 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>

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1. 2008 Fall AGU Meeting, 15-19 December, San Francisco, CA Housing and Pre-registration Deadline: 14 November 2008 For complete information see www.agu.org/meetings/fm08/

1.1 Near Surface Geophysics Focus Group Lunch at the Fall AGU Meeting:

The 2008 Near Surface Geophysics Lunch is scheduled for Tuesday Dec 16 and will be held at the San Francisco Marriott next to the convention center. This is your chance to engage with the NS Executive Committee, get a report on activities for the past year, hear their plans for this term of the focus group and offer input on the future activities/outreach of NS. Last year, this event was attended by 130 members and sold out. It was a great opportunity for the NS community to meet as a group. The Executive Committee very much hopes you will attend this lunch. IMPROTANT NOTE: This is a ticketed event (\$35) and you MUST purchase lunch tickets in advance when you register online for the meeting as AGU will not sell lunch tickets to those who register on-site.

1.2 Joint Near Surface Geophysics Focus Group/Hydrogeophysics Committee Social Event at the Fall AGU Meeting:

The NS Focus Group is again holding a joint social event with the Hydrogeophysics Committee at this year's Fall AGU meeting. In keeping with an evolving tradition, the social will be held at The Hotel Utah Saloon (500 4th Street at Bryant - 4 blocks south along 4th Street from the conference center, <http://www.thehotelutahsaloon.com/contact.html#map>). The social is scheduled for Monday Dec 15 at 6:30 pm. Currently, the social will be a drinks only social event (The Utah does not serve food on Monday) as per previous years although the

Hydrogeophysics Committee is looking to see if The Utah will consider running bar food this night (see the December newsletter for an update).

1.3 NS Sponsored Student Luncheon:

Our NS Student Representative, Elliot Grunewald, is organizing a student lunch on Wednesday Dec 17 during the Fall AGU meeting. This is the first student event sponsored by NS and is designed to draw together a group of 10-15 students at a local lunch spot in order to actively engage the NS student community. In return for a free (food only) lunch at Buca Di Beppo, Elliot is hoping to get primed with thoughts and ideas on how NS can better serve its student community in the future. If you wish to participate, please contact Elliot (elliottg@stanford.edu) early as space is limited.

1.4 Fall 2008 AGU NS Sessions: (<http://www.agu.org/cgi-bin/sessions5?meeting=fm08&sec=NS>)

NS12A Monday 10:20 to 12:20, MC 3009

Near-Surface Geophysics General Contributions I (joint with H, S)

Presiding: S Kruse, University of South Florida; M Craig, California State University East Bay

NS13A Monday 13:40 to 15:50, MC Hall D

Near-Surface Geophysics General Contributions II, Posters (joint with H,

S)Presiding: C J Weiss, Virginia Polytechnic Institute and State University; M Everett, Texas A&M University, Dept of Geology and Geophysics

NS22A Tuesday 10:20 to 12:20, MC 2003

Geoscientific Data for the Revitalization of Afghanistan (joint with IN, H, PA) PRESENTATION AND PANEL DISCUSSION: representatives from USGS and the Ministry of Mines and Geology, Afghanistan

Presiding: T V King, U.S. Geological Survey; R F Kokaly, U.S. Geological Survey; I Verstraeten, U.S. Geological Survey

NS23A Tuesday 13:40 to 15:50, MC Hall D

Stratigraphic Applications of Near-Surface Geophysics, Posters (joint with H, S)

Presiding: M Craig, California State University, East Bay; M O'Neal, Loyola College in Maryland; C Juhlin, Uppsala University

NS31A Wednesday 08:00 to 10:00, MC Hall D Application of Joint Inverse Methods for Improved Characterization and Assessment of Groundwater, Mineral, and Petroleum Resources, Posters (joint with IN, H)

Presiding: M J Friedel, U.S. Geological Survey; B Minsley, U.S. Geological Survey

NS41A Thursday 08:00 to 10:00, MC 3007

Geophysical Characterization of Flow in Dual-Porosity Media: From Fractures to Karst and Glaciers I (joint with C, H, MR)

Presiding: G Tsoflias, The University of Kansas; M Becker, University at Buffalo, State University of New York

NS43A Thursday 13:40 to 15:50, MC Hall D Geophysical Characterization of Flow in Dual-Porosity Media: From Fractures to Karst and Glaciers II, Posters (joint with C, H, MR)

Presiding: G Tsoflias, The University of Kansas; M Becker, University at Buffalo, State University of New York

NS43B Thursday 13:40 to 15:50, MC Hall D Near-Surface Geophysics General Contributions III, Posters (joint with H, S)

Presiding: R B Herman, Radford University; E Atekwana, Oklahoma State University

NS51A Friday 08:00 to 10:00, MC 2018

Monitoring Techniques and Interpretation Methods for Coupled Thermo- Hydro-Mechanical Processes in the Earth Crust I (joint with IN, H, MR, S, T, V)

Presiding: Y Guglielmi, University of Provence Aix-Marseille 1; T Vanorio, Stanford Rock Physics and Borehole Laboratory; J Rutqvist, Lawrence Berkeley National Laboratory

NS53A Friday 13:40 to 15:50, MC Hall D

Monitoring Techniques and Interpretation Methods for Coupled Thermo- Hydro-Mechanical Processes in the Earth Crust II, Posters (joint with IN, H, MR, S, T, V)

Presiding: Y Guglielmi, University of Provence Aix-Marseille 1; T Vanorio, Stanford Rock Physics and Borehole Laboratory; J Rutqvist, Lawrence Berkeley National Laboratory

1.5 Hydrogeophysics and Co-sponsored Fall AGU NS Sessions:

PA11A Monday 08:00, MC 3014

Increasing the Societal Impact of Geophysics I

Presiding: R Snieder, Colorado School of Mines; L Pellerin, Green Engineering, Inc

PA13B Monday 13:40, MC Hall D

Increasing the Societal Impact of Geophysics II, Posters

Presiding: R Snieder, Colorado School of Mines; L Pellerin, Green Engineering, Inc

H33G Wednesday 13:40, MC Hall D

Integration of Hydrological, Geophysical, and Geochemical Monitoring, Modeling, and Inversion to Support Remediation and Environmental Decision Making I Posters

Presiding: R G Ford, Office of Research and Development/ U.S. Environmental Protection Agency; D Miller, Fluor Hanford

H41L Thursday 08:00, MC3008

Integration of Hydrological, Geophysical, and Geochemical Monitoring, Modeling, and Inversion to Support Remediation and Environmental Decision Making II

Presiding: R G Ford, Office of Research and Development/ U.S. Environmental Protection Agency; D Miller, Fluor Hanford; M M Smith, Colorado School of Mines

H42D Thursday 10:20, MC 2002

Hydrogeophysics: Methods, Models, and Applications I (joint with NS)
Presiding: R Beckie, University of British Columbia; S Huisman, Forschungszentrum Jlich

H43J Thursday 13:40, MC2002

Hydrogeophysics: Methods, Models, and Applications II (joint with NS)
Presiding: S Lambot, Universite catholique de Louvain; D Rucker, HydroGeophysics, Inc.

H43K Thursday 13:40, MC 2003

Recent Innovations in Environmental Sensing, Cyberinfrastructure, and Observatories I
Presiding: J Dozier, University of California Santa Barbara; M Kumar, Penn State University; H Vereecken, Forschungszentrum Jlich

H44C Thursday 16:00, MC 2002

Hydrogeophysics: Methods, Models, and Applications III (joint with NS)
Presiding: P Ferre, University of Arizona; R Beckie, University of British Columbia; D Rucker, HydroGeophysics, Inc.; S Huisman, Forschungszentrum Jlich

H44D Thursday 16:00, MC 2003

Recent Innovations in Environmental Sensing, Cyberinfrastructure, and Observatories II
Presiding: M Kumar, Penn State University; T Harter, University of California Davis; R W Fedors, U.S. Nuclear Regulatory Commission; J S Selker, Oregon State University

H51G Friday 08:00 MC Hall D

Hydrogeophysics: Methods, Models, and Applications IV, Posters (joint with NS)
Presiding: T P Ferre, University of Arizona; R Beckie, University of British Columbia; D Rucker, HydroGeophysics, Inc.; S Huisman, Forschungszentrum Jlich

H51H Friday 8:00, MC Hall D

Recent Innovations in Environmental Sensing, Cyberinfrastructure, and Observatories III, Posters
Presiding: M Kumar, Penn State University; C Manepally, CNWRA, Geosciences and Engineering Division, Southwest Research Institute; T Harter, University of California Davis; R W Fedors, U.S. Nuclear Regulatory Commission

H51M Friday 08:00, MC3008

Integration of Hydrological, Geophysical, and Geochemical Monitoring, Modeling, and Inversion to Support Remediation and Environmental Decision Making III
Presiding: J H Bradford, Boise State University; L Bentley, University of Calgary

2. Contributions to the NS Fund:

As you renew your dues this year, you may want to consider making a contribution and designating it for the NS Fund. The types of activities that are supported by AGU section/focus group funds are: outstanding student paper awards (travel awards), subsidies for section social events at meetings, special plaques or

medals, travel awards or support for critical/important speakers at meetings, etc. We plan to use this fund in the interest of student members and we welcome your suggestions how to put it to good use. We do not have much to spend since we are a relatively new focus group, but overtime and with your help we can build a fund that can have an impact on our student membership. Please note that contributions of over \$120 will make you a "supporting member" and \$60 of that contribution will go to AGU's undesignated fund.

3. Environmental and Engineering Geophysical Society News (EEGS)

3.1 Call for Articles for the December Issue of FastTIMES:

The editors of FastTIMES, EEGS's electronic newsmagazine for near-surface geophysics, are accepting articles and announcements through NOVEMBER 21 for inclusion in the next issue, due to be published and distributed electronically in December. Articles on humanitarian geophysics, cavity and void detection, or off-planet geophysics are especially encouraged. Visit the FastTIMES web site at www.eegs.org/fasttimes/ for more information.

3.2 Special Student Poster Session at SAGEEP 2009, Fort Worth, Texas, 29 March - 2 April:

A special feature of SAGEEP 2009 being held in Fort Worth will be the inaugural Special Student Poster Session. This Special Session will be held on the first day of the conference and will allow a short 3-5 minute preview of the poster via an oral presentation format and then give opportunities to present and discuss the poster with attendees in the traditional one-on-one format.

Students are invited to submit only a 200-word abstract by Dec. 12, 2008.

(Students can submit online at www.x-cd.com/sageep2009/student_abstract.cfm) .

Abstracts that are submitted after the maximum number that can be accommodated in the session is reached may be scheduled for the regular poster session, but will still be designated as a Special Student Poster.

Those interested can learn more about SAGEEP 2009 and the Special Student Poster Session by accessing the EEGS web site at www.eegs.org and clicking on the SAGEEP 2009 button.

4. European Geosciences Union (EGU), General Assembly 2009, 19-24 April, Vienna, Austria:

Dear Colleagues,

We are very glad to announce the start of the Abstract submission for the EGU General Assembly 2009 (EGU2009). You are cordially invited to browse through the Sessions at: <http://meetingorganizer.copernicus.org/EGU2009/sessionprogramme>

Each Session shows the link Abstract Submission. By using this link you are asked to login to the Copernicus Office Meeting Organizer* (see below). You may submit the text of your contribution as plain text, LaTeX, or MS Word content.

The deadline for the receipt of Abstracts is 13 Jan 2009. In case that you would like to apply for a support, please submit not later than 07 Dec 2008.

Further information about the EGU General Assembly 2009 can be found at:
<http://meetings.copernicus.org/egu2009>

In case that any questions may arise, please do not hesitate to contact us!

With kind regards,
Katja Gänger
Copernicus Meetings
egu2009@copernicus.org

on behalf of the Programme Committee Chair

*Please remark that this meeting is, for the first time, organized by using the Copernicus Office Meeting Organizer, the successor of the former COSIS System. Active user accounts from COSIS registered before 08 October 2008 were transferred into the new system keeping the user ID, and you should have got a corresponding welcome email together with a new password. Anyhow, your login data can always be resend by giving your email address (Link Resend Login Data in any login dialogue). We apologize for any inconveniences caused by this system change and we stay always at your disposal for support. Please contact the Copernicus Office Support at support@copernicus.org, phone +49-5556-99555-66.

5. Positions

5.1 Postdoc and PhD Positions in Hydrogeophysics at the Research Center Julich (Germany):

For our Institute of Chemistry and Dynamics of the Geosphere - Agrosphere (ICG-4), we are currently seeking a postdoctoral researcher and a PhD student in the field of hydrogeophysics.

Postdoctoral: The objective of the Postdoctoral research is to obtain three-dimensional time-lapse quantitative information on hydrogeophysical properties by migrating and inverting full-waveform surface and borehole GPR data. Other geophysical tools, such as ERT, diffusive electromagnetics and seismics, will also be used to constrain the inversion. The methods developed will first be tested on synthetic data before being applied to experimental data acquired from a geological/hydrogeological field site located in Europe.

We are looking for highly motivated individuals who have completed a PhD in geophysics, physics or electrical engineering not more than three years ago. Candidates should have excellent programming experience in MATLAB, Fortran 90 and/or C. The successful candidate will also be expected to have a good knowledge of English, and to initiate and conduct his/her own research projects in a structured and systematic manner, as well as work well in a team. The position involves a fixed-term contract of two years, with the possibility of extension.

PhD: The primary objective of the PhD research is to develop and extend existing fullwaveform processing, migration and inversion algorithms for multi-offset multicomponent surface GPR data with the ultimate goal of obtaining quantitative information on hydrogeophysical properties. Specific components of the project will include: (i) improving the forward model used in the inversion, (ii) developing robust procedures to extract the effective wavelet from the recorded data, (iii) writing a new algorithm to accommodate the full-waveform inversion of surface GPR data, (iv) recording, processing and inverting two multi-offset multi-component surface GPR data sets, one acquired under controlled conditions and one acquired from a hydrogeological field site located in Europe. We are looking for highly motivated individuals with a strong background in geophysics, physics or electrical engineering and a keen interest in numerical and computational methods. The working languages of our group are English and German.

For more information on the Institute of the Agrosphere, visit our website: <http://www.fz-juelich.de/icg/icg-4/index.php?index=3> or contact Prof. Jan van der Kruk (j.van.der.kruk@fz-juelich.de).

5.2 Graduate Research Assistantship in Hydrogeophysics, Penn State:

The environmental hydrogeology group at Penn State is looking for a PhD candidate to work in a project entitled "Mass Transport in Groundwater" to explore how 1) solutes locally diffuse between mobile and less mobile zones, and/or 2) mass transfer processes within and between heterogeneous zones affect our macroscopic view of solute transport in the field. This work will entail conducting tracer tests and the field scale (potentially at the laboratory scale, if interest exists), collecting electrical geophysical data, and numerical modeling. This PhD position will interface with a large, multi-disciplinary collaborative project at the Shale Hills Critical Zone Observatory at Penn State. The position includes a 12-month stipend, full coverage of tuition, and health care coverage.

Candidates should have an interest in hydrogeology and geophysics and be highly motivated. Experience with numerical modeling and/or field data collection is desirable, but not required. Penn State Geosciences has a very highly rated graduate program with approximately 35 faculty members, 100 graduate students, and lots of opportunities for collaboration between disciplines. More information on the department can be found at <http://www.geosc.psu.edu/>, including a link to required application materials (<http://www.geosc.psu.edu/graduates/apply.php>). Review of application materials will begin on Dec 15. Interested candidates should contact Dr. Kamini Singha (ksingha@psu.edu).

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

George Tsoflias tsoflias@ku.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 hyperlink 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). Do not submit e-mail attachments for distribution.