

May 2007 NS-Letter

1. 2007 Joint Assembly Session Information 2. Near-Surface Geophysics Focus Group Reception at Joint Assembly 3. Outstanding Student Paper Award in the Near-Surface Geophysics Focus Group, at the Dec 2006 AGU Fall Meeting

1. 2007 Joint Assembly, 22-25 May, Acapulco Mexico

The Near Surface Geophysics (NS) focus group sessions (sponsored by Society of Exploration Geophysicists, SEG) showcase the most recent advances in geophysical characterization of the subsurface. This year has a distinctly applied flavor, with sessions exploring applications of geophysics for understanding complex geology, fractured rock media, microbial processes, archaeology and imaging of gas hydrates. Other sessions focus on recent technological developments in measurement and monitoring. The sessions on gas hydrates ('Gas Hydrates in the Americas') and archaeology have a distinct Central American theme reflecting the location of this year's Joint Assembly meeting. A special double session on Biogeophysics, being the final of three consecutive sessions run at the AGU Joint Assemblies, is providing travel support from the National Science Foundation for student first authors to present novel results of their research at the Joint Assembly'.

The NS sessions can be viewed at

<http://www.agu.org/cgi-bin/sessions5?meeting=sm07&sec=NS>
<<http://www.agu.org/cgi-bin/sessions5?meeting=sm07&sec=NS>>

2. Near-Surface Geophysics Focus Group Reception at Joint Assembly

Tuesday following the sessions: Come out to meet other NS-types. Light snacks and a cash bar. Exact time and place to be determined - please check the program at the meeting. Following the reception, we will move on to another location, also yet to be determined.

3. Outstanding Student Paper Award in the Near-Surface Geophysics Focus Group, at the Dec 2006 AGU Fall Meeting

Burke Minsley
Earth Resources Laboratory; Department of Earth, Atmospheric, and Planetary Sciences;
Massachusetts Institute of Technology

Abstract:

Quantifying the effects of unknown resistivity structure on self-potential data analysis

* Minsley, B (minsley@mit.edu) , Earth Resources Laboratory; Department of Earth, Atmospheric, and Planetary Sciences; Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, MA 02139, United States;

Morgan, F D (morgan@erl.mit.edu) , Earth Resources Laboratory; Department of Earth, Atmospheric, and Planetary Sciences; Massachusetts Institute of Technology, 77 Massachusetts Avenue, Cambridge, MA 02139, United States

Self-potential data are the result of a source mechanism (e.g. electrokinetic, electrochemical, etc.) that generates an electric field in the earth. Without complete knowledge about the resistivity structure of the medium, one can not properly interpret the source properties of interest. In this study, we quantify how uncertainties in the resistivity structure can influence self-potential data analysis and source inversion results. Several synthetic forward and inverse examples are used to illustrate the sensitivity of measured data and inversion results to various unknown resistivity structures.

Additionally, we show self-potential source inversion examples from field datasets using different resistivity assumptions, where the true resistivity structure is unknown.

AGU NS-Focus Group Web Page: http://www.agu.org/focus_group/nsg/index.html

To contribute material to the NS-letter e-mail before the first of the month to:

George Tsoflias tsoflias@ku.edu <<mailto:tsoflias@ku.edu>>

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) to ensure compatibility with e-mail recipients outside the US. For the same reason, e-mail attachments are not being forwarded.