



**NEAR-SURFACE GEOPHYSICS FOCUS GROUP
NEWSLETTER: JUNE 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 website: <http://sites.agu.org/nsg/>

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1. Early Career Article – “Postdoc Advancement: Marketing Your Value” (from Nedra Bonal)

Check out the article titled "[Postdoc Advancement: Marketing Your Value](http://sciencecareers.sciencemag.org/career_magazine/previous_issues/articles/2013_08_22/science.o.pms.r1300135)." It contains information that is relevant to all Early Career scientists including: funding, getting hired, effective communication, marketing yourself, leadership and management, and team building. (Full address to article: http://sciencecareers.sciencemag.org/career_magazine/previous_issues/articles/2013_08_22/science.o.pms.r1300135)

Please contact Nedra Bonal at nbonal@sandia.gov for comments or questions about Early Career topics.

2. The Leading Edge special issue on Near Surface Geophysics (from Dale Werkema)

The February 2015 issue of *The Leading Edge* (TLE) will focus on Near-Surface Geophysics. Please consider a submission to this special edition. The widespread distribution of TLE will enable a broad impact of your contribution. Your research, experience, and expertise is on the cutting edge of near-surface geophysics and is greatly welcomed and encouraged to make the issue a success. The submission details are attached and a timeline of the submission is detailed below.

Submission Timeline for the Special Issue

- 15 Oct:** articles due to guest editor (GE)
- 15 Oct–15 Nov:** GE reviews submissions
- 15 Nov:** GE lets authors know approved, rejected, suggestions for revision
- 15 Nov–1 Dec:** authors revise articles, return revision to GE
- 1 Dec–15 Dec:** GE reviews revision, makes any final changes
- 15 Dec:** revised articles due to TLE editorial staff, upload to SEG ftp site

3. Upcoming Conferences and Workshops

3.1 Joint SEG/AGU Summer Research Workshop: Advances in Active + Passive “Full Wavefield” Seismic Imaging: from Reservoirs to Plate Tectonics (from Dave Lumley)

Workshop Dates: 21-24 July 2014

Advance Registration Deadline: 20 June 2014

Website: [click here to follow link](#)

Rapid developments are occurring in advanced seismic imaging and inversion research, using “full wavefield” approaches, and very large broadband sensor arrays. These advances are happening at detailed reservoir scales (hydrocarbons, geothermal, groundwater, CO₂ sequestration...), up to much larger earthquake seismology and global plate tectonics scales. The purpose of this joint SEG-AGU summer research workshop is to bring together leading scientists in full wavefield seismic imaging/inversion research from across a broad spectrum to share their knowledge and challenges, compare notes and find synergies that may lead to new collaborations and breakthroughs in imaging the Earth.

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

Workshop Dates: 19-20 June *or* 14-15 August 2014 [two workshops]

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

Workshop 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 (<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.

4. Position Announcements

4.1 Senior Geophysicist (Geological Survey of South Australia)

- Adelaide CBD based
- Salary Range \$83,601 - \$88,669 (plus superannuation)
- Ongoing/ Full Time Role

The Geological Survey of South Australia (GSSA) is a branch of the Mineral Resources Group which is part of the Department for Innovation, Manufacturing, Trade, Resources and Energy (DMITRE) Resources and Energy Group. The GSSA provides a comprehensive information and knowledge framework on the State's geoscience and resources through a strategic science based approach within a collaborative and professional work environment to deliver non-rivalled pre-competitive geoscience data to the exploration and mining industry and wider community.

We are looking for a talented individual with an exploration focus and high level geophysical data management expertise to join our team. The successful candidate will be a Senior Geophysicist with a high level of geophysical and overall geosciences expertise. The role will be responsible for providing geophysical analysis to support exploration and mapping initiatives undertaken by the GSSA.

The ideal candidate will have:

- Minimum of 5 years experience, majority in an exploration/ mapping centred environment.
- High level geophysical interpretation and mapping skills at the regional and prospect level.
- High level of knowledge of structural and stratigraphic interpretation methods.
- Experienced in designing, conducting and delivering major geophysical surveys.
- Experienced in geophysical data processing, QAQC in dissemination centred environment.
- Highly developed knowledge of polymetallic exploration and economic geology techniques.
- Experienced in the use of geoscientific exploration software including ERMapper, ArcGIS and/or Mapinfo (+Discover), Intepid & Modelvision.
- Polymetallic exploration and economic geology techniques.

Applicants must have Australian Residency.

4.2 Science Teaching and Learning Fellow (University of British Columbia)

The Department of Earth, Ocean, and Atmospheric Sciences (EOAS) at the University of British Columbia (UBC) invites applications for the position of Science Teaching and Learning Fellow (STLF) in an extension of the Earth & Ocean Sciences Science Education Initiative (EOS-SEI; <http://eos.ubc.ca/research/cwsei/>). The EOS-SEI was started as part of the Carl Wieman Science Education Initiative (CWSEI), a program for the improvement of undergraduate science education at UBC (<http://cwsei.ubc.ca/>). The appointments will be for one year initially and may be renewable for two additional years. Appointments will be made at the 12-month lecturer level. The anticipated start date is 1 August 2014.

We seek one or more individuals to join an existing team working to strengthen evidence-based teaching, learning and assessment in EOAS courses. The successful applicant(s) will: (1) Facilitate development, implementation and transfer of evidence-based pedagogies among instructors. This effort will use a model in which 2 or more faculty members, with varying experience using evidence-based practices, will co-teach, supported by an STLF. (2) Administer and evaluate assessments of student learning and perceptions. (3) Contribute to research and publication efforts in teaching and learning. (4) Teach one undergraduate course per year.

The successful applicant(s) will have access to a wide range of professional development opportunities in the scholarship of teaching and learning, particularly in science education.

Candidates should have (1) a PhD or MSc in Earth, Ocean, or Atmospheric Sciences, or in Education related to these disciplines; (2) undergraduate teaching experience (at least one year), (3) excellent organizational, interpersonal, and communication skills, (4) demonstrated personal commitment to science education, and (5) English fluency. Familiarity with current pedagogical research at the post-secondary level is desirable. Experience in developing educational materials or curriculum, and project management will be considered assets.

UBC hires on the basis of merit and is committed to employment equity. All qualified persons are encouraged to apply. We especially welcome applications from members of visible minority groups, women, Aboriginal persons, persons with disabilities, persons of minority sexual orientations and gender identities, and others with the skills and knowledge to engage productively with diverse communities. Canadians and permanent residents of Canada will be given priority.

These positions are subject to final budgetary approval. Salary will be commensurate with qualifications and experience.

Applicants should submit a CV, statement of teaching interests and philosophy, and the names and complete contact information (including phone and e-mail) of three references to: Dr. Sara Harris, Department of Earth, Ocean and Atmospheric Sciences, The University of British Columbia, 2020-2207 Main Mall, Vancouver, BC, Canada, V6T 1Z4, email:sharris@eos.ubc.ca.

Review of applications will begin on 15 June 2014, and will continue until the position is filled.

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](https://twitter.com/NS_AGU) will receive Twitter announcements, so make sure that you sign up!