



NAGT



THE GER EXCHANGE

Promoting high-quality scholarly research in geoscience education.

Webinar: Geoscience Education Research at the Post-Secondary and Professional Level

Geoscience education research is a broad field related to studies of teaching, learning, and cognition in the geosciences. As one of a subset of IRIS webinars, Dr. Clare Bond (University of Aberdeen) and Dr. Eric Riggs (Texas A&M University) introduce geoscience education research, provide examples of ongoing studies, and open pathways for collaboration.

This [webinar](#) gives a broad overview of the topics and methods in geoscience education research and discusses recent studies related to geophysics content, instruction, and training of undergraduate and graduate students. Eric Riggs presents on his study investigating the workflow and problem solving approaches of graduate students challenged with interpreting seismic data. He discusses the differences between key groups in his study, including geologists, geophysicists, and students with varying degrees of experience. Clare Bond presents on the uncertainty in geologic interpretations of seismic data and imagery. She describes what happens when there is no right answer and how we can teach uncertainty in science. [View the webinar here.](#)

"Defining GER Grand Challenges" Survey

Thirteen years ago, the Wingspread Report (Manduca et al., 2003) helped establish geoscience education research (GER) as a legitimate research field and highlight overarching research questions for GER at the time. More recently, the growth and interest in GER is evident from the increase in the quality and frequency of geoscience education research articles (Pilburn, et al., 2011), the 2014 establishment of the NAGT GER Division, an increase in the number of GER graduate programs, and tenure-track faculty positions that support geoscience education research. As an emerging DBER field (Singer et al., 2012), the GER community needs to take stock of the current state of their research and consider the best course forward so that it can have the greatest collective impact on advancing teaching and learning in the geosciences.

As part of a multi-step effort to meet this need, Kim Kasten, Karen McNeal, Heather Macdonald, and Kristen St. John have developed a [survey "Defining GER Grand Challenges"](#) to gain broad community insight into important research questions in GER for different topical areas. This survey provides an opportunity for you to voice your opinion on what the research priorities should be for the GER community for the next 10 years. Data from the surveys will be analyzed at a summer workshop and later compiled in a white paper. It is our vision that individuals and research groups will situate their future GER work in a framework that has the potential to transform GER by developing methods and testing hypothesis that address identified "grand challenges" in GER. The [survey](#) will be open from April 1-23, 2017.

Job, Internship, and Scholarship Opportunities

- [Skylight Science Education Specialist](#), Earth, Ocean, and Atmospheric Sciences, University of British Columbia (deadline **April 14, 2017**)
- [Assistant Extension Professor](#), 4-H STEM Specialist, University of Maine (deadline **April 17, 2017**)
- [Post Doctoral Researcher](#), University Center for the Advancement of Teaching, Ohio State University (deadline **April 23, 2017**)
- Postdoctoral Associate, Universal Design for Learning and Scholarship of Teaching and Learning, Center for Teaching and Learning, University of Vermont (deadline **April 28, 2017**- contact [Jennifer Dickinson](#), CTL director, for details)
- [Post-Doctoral Fellow](#), Department of Youth Development and Agricultural Education, Purdue University (deadline **May 1, 2017**)
- [Postdoctoral Research Associate](#), Brown School of Engineering, Rice University

GER Division Seeking Nominations

The Nominations and Elections Committee of the GER division is seeking nominations for the offices of Secretary and Vice President. Self-nominations are welcomed. All nominations should be sent directly to Past President Nicole LaDue at nladue@niu.edu. Nominations should include a brief statement of interest and their current CV, and be received no later than 5:00pm Eastern Time Friday April 21st, 2017.

The duties of each position can be found in the [GER Division bylaws](#). The Secretary has the option of being nominated annually to serve for three consecutive years. The Vice President is nominated President and Past President, consecutively, following their election to the role of Vice President. Typically, the GER Division Leadership meets once a month for an hour-long conference call, with emails in-between calls for more pressing matters.

Upcoming Grant and Award Deadlines

- National Science Foundation [*Dear Colleague Letter: Public Participation in STEM Research: Capacity-building, community-building, and direction-setting*](#) Application Deadline **April 11, 2017**
- National Science Foundation [*ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers*](#) Institutional Transformation Preliminary Proposal Deadline **April 12, 2017**
- International Association for Geoscience Diversity [*Inclusive Geoscience Education and Research Awards*](#) Nomination Deadline **May 1, 2017**
- National Science Foundation [*Research Experiences for Undergraduates*](#) Full Proposal Deadline **May 26, 2017**

Join the [STEM DBER Alliance](#)

With funding from the Helmsley Trust, AAAS and APLU held a meeting of discipline-based education researchers (DBER) in November 2016 to discuss building a cross-DBER community of scholars. You can read more about the [inaugural meeting here](#).

From that conversation emerged a vision for a cross-disciplinary STEM DBER community that will advance and disseminate knowledge and theory that promote learning and success for all students across STEM fields. This community has the opportunity to address complex, cross-cutting research questions, as well as issues that arise in individual disciplines and can best be understood and addressed with theories that transcend disciplines. At its core, this STEM DBER community will focus on undergraduate learning and teaching at 2- and 4-year colleges and universities, with links to K-12 and graduate education. STEM is broadly defined to include social and behavioral sciences, and **participation of geoscientists is crucial to seeing our community well-represented in this conversation.**

Thus far, only 9 GERs (relative to over 100 BERs) have joined the alliance. Help raise the profile of GER within the DBER community by [joining the STEM DBER Alliance now!](#)

Summer Institutes on Scientific Teaching

The Yale Center for Teaching and Learning, Howard Hugest Medical Institute, and the Helmsley Charitable Trust will offer six regional [institutes on scientific teaching](#) during Summer 2017. The facilitators encourage applicants from research-intensive institutions to apply to HHMI-funded sites and applicants from teaching-intensive institutions to apply to Helmsley-funded sites.

- [June 5-10](#): University of Minnesota (HHMI-funded)
- [June 19-23](#): University of California, San Diego (Helmsley-funded)
- [June 20-23](#): University of Oregon (HHMI-funded)
- [June 25-29](#): University of Connecticut (Helmsley-funded)
- [July 17-21](#): Louisiana State University (Helmsley-funded)
- [June 24-28](#): University of Chicago (HHMI-funded)

AGU 2017 Fall Meeting Pop-Up Sessions

Pop-up sessions may cover a wide range of topics, and provide AGU student members with an opportunity to present their ideas at the Fall Meeting in a short, 5 minute TED-like talk style. Last year's Social Dimensions Pop-Up session, which was open to all AGU members, encouraged presenters to discuss topics such as interdisciplinary research, diversity and equality in the geosciences, and mentoring. To read more about the pop-up sessions that were held last year and see example session descriptions, please visit: <http://fallmeeting.agu.org/2016/students/student-pop-talks/>.

The AGU session proposal deadline is **April 19**. To submit a proposal, please email your pop-up session title, convener(s) contact information, and session description (max 200 words) to Cynthia Gerlein-Safdi (cgerlein@princeton.edu) with "Pop-Up Session Proposal Submission" in the email subject line (preferably) **by April 1**.

Submit to the GER Exchange

NAGT-GER provides monthly updates on professional opportunities, funding, articles of note, researcher profiles, and other content of interest to our membership. Please consider [contributing items](#) of interest for inclusion in future editions of the Exchange!

For questions, or to join the GER Communications Committee, contact Communications Committee Chair [Kelsey Bitting](#).



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This monthly email goes out to all GER Division members to share opportunities and ideas relevant to the community.