

Newsletter for GERA

APS Topical Group on Energy Research and Applications

Fall 2013

Message from the Chair

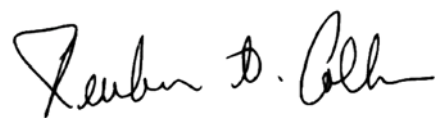


The APS Topical Group on Energy Research and Applications (GERA) seeks “to promote communication relevant to the physics involved in humankind's safe generation, transmission, storage, and efficient use of energy with as small an impact on the Earth's environment and resources as feasible. GERA fosters the education and networking of scientists and engineers active in these fields and the next generations of researchers and educators.” In its first years of existence, GERA has established a strong presence at the APS March meeting and contributed to the April meeting. GERA is adding student representation to the Executive Committee and has made its first nominations for Fellowship in the APS. Two highlights are the very popular energy workshop targeting graduate students that will be held again in 2014 on the Sunday before the beginning of the March meeting, and GERA co-sponsorship of Physics of Sustainable Energy III: Using Energy Efficiently and Producing It Renewably to be held at UC Berkeley just after the March meeting.

This newsletter discusses some of the ongoing activities of GERA, including the upcoming election and activities at the 2014 March and April meetings. More information on GERA is available at: <http://aps.org/units/gera/>

I encourage you to send me your ideas for GERA and to become involved!

Regards,

A handwritten signature in black ink that reads "Reuben T. Collins". The signature is written in a cursive, flowing style.

Reuben T. Collins

Call for Nominations for new GERA Officers

GERA will elect a new Vice-Chair and Members of the Executive Committee (see <http://www.aps.org/units/gera/governance/officers/index.cfm>). On January 1, 2014, GERA Chair Reuben Collins becomes Past-Chair, Chair-Elect Sue Carter becomes the Chair and Vice-Chair Dave Ginley becomes Chair-Elect. Our Secretary-Treasurer Jim McGuire and the four members of the Executive Committee [Franz Himpel, James Misewich, Joseph Poon, and Donald Siegel] will continue to hold office until January 1, 2015. Members of the Executive Committee retiring January 1, 2014 are Alvin Compaan and Ellen Stechel. In addition, this year GERA is adding a graduate student representative to the Executive Committee. We encourage GERA members to submit nominations for the open positions of Vice Chair and on the Executive Committee. Suggestions may be sent to the Chair of the Nominations Committee, Reuben Collins (rtcollin@mines.edu) by November 8, 2013. GERA is particularly interested in attracting a member in fields supported by the April Meeting to help strengthen activities in that area.

As you consider making a nomination, please keep in mind the APS Statement on Diversity (2012): "Attracting and serving a diverse and inclusive membership worldwide is a primary goal for APS. In calling for nominations, we wish to remind you how important it is to give full consideration to qualified women, members of underrepresented minority groups, and scientists from outside the United States."

Call for Nominations GERA sponsored APS Fellowship.

GERA may sponsor 1-3 new members for Fellowship in the American Physical Society each year. You are invited to nominate deserving colleagues. The nomination process may be done directly on-line at: <http://www.aps.org/programs/honors/fellowships/nomination-requirements.cfm>. **The deadline for nomination is April 1, 2014.**

2014 March Meeting

Student travel funding to attend the March 2014 Energy Research Workshop

GERA has sponsored an annual Workshop held the Sunday before the beginning of the March Meeting for the last few years. This event, intended primarily for graduate students, has proven to be very popular. Each year the Workshop is organized around a theme. The 2014 workshop to be held in

Denver CO on Sunday, March 2 will focus on “Energy for Transportation.” The workshop consists of a series of talks by leading experts in the field, lunch with the experts, and a panel discussion. Confirmed speakers include: Alan Taub (U. of Michigan and former Vice President of Global Research and Development at General Motors), Chris Gearhart (Center Director, Transportation and Hydrogen Systems Center at the National Renewable Energy Laboratory), Ryan O’Hayre (Renewable Energy MRSEC at the Colorado School of Mines), Blake Simmons (Sandia National Laboratory), and Nate Lewis (California Institute of Technology). The organizing committee includes: Reuben Collins, Sue Carter, Dave Ginley, Julia Phillips, George Crabtree, and Jim McGuire, with inestimable help from *Ken Cole* of APS, who has been instrumental in getting the workshop off the ground and keeping it running smoothly.

Travel funds are available to support student attendance at the workshop. If you are a student and interested in applying to attend, please contact Jim McGuire (mcguire@tulane.edu), who will send application information when it becomes available.

GERA sponsored Focus Sessions

In addition to the workshop, GERA is organizing an invited symposium on energy research and sponsoring or co-sponsoring six focus topics at the March meeting. The focus topics are (along with their sorting category numbers):

21.1.1: Thermoelectric Phenomena, Materials, Devices, and Applications
(GERA/DMP/FIAP)

21.1.2: Organic Electronic Systems for Solar Energy Conversion

21.1.3: Materials for Electrochemical Energy Storage
(GERA/DMP/FIAP/DCOMP)

21.1.4: Polymers for Energy Storage and Conversion (DPOLY/GERA)

21.1.5: Novel Photophysics and Transport Mechanisms for Nanostructured Photovoltaics

Information about focus topics and GERA's additional (non focused) sorting categories can be found under topic area 21 on the webpage:

<http://www.aps.org/meetings/march/scientific/categories.cfm#1>

The abstract submission deadline is Friday, November 15, 2013 5:00 p.m. EST. For submission of abstracts please see:
<http://www.aps.org/meetings/march/scientific/index.cfm>

2014 April Meeting.

For the 2013 April meeting GERA collaborated with the APS Forum on Physics and Society on two invited symposia, one on Low Carbon Electricity and a second on Low Carbon Transportation. The 2014 April Meeting will be held in Savannah, GA and GERA will again be coordinating invited symposia with the Forum on Physics and Society. Symposium topics are currently under development. While GERA has had its strongest presence at the March meeting, greater support for the April meeting is an important goal. As mentioned above, the Executive Committee hopes to elect a member that can help with this. The abstract deadline for the April meeting is January 10, 2014. Information on abstract submission and GERA sorting categories can be found at: <http://www.aps.org/meetings/april/scientific/index.cfm>

GERA Co-Sponsors: Physics of Sustainable Energy III: Using Energy Efficiently and Producing It Renewably

March 8-9, 2014, at UC Berkeley, with optional Bay Area site visits planned for March 10-11 (Monday and Tuesday).

This conference will be an intense weekend short course to enhance the background of physical scientists, especially early-career scientists, who want to work on applied energy topics, or of teachers, who might want to introduce energy topics into their courses. The main audience will be physics professors, post-docs and graduate students. Two previous conferences on this theme, in 2008 and 2011, both also held on the UC Berkeley campus, drew about 200 attendees. The conference is sponsored by the GERA, the APS Forum on Physics and Society and by the American Association of Physics Teachers. The American Institute of Physics (AIP) will publish the proceedings as a sourcebook.

Serving on the organizing committee are Rob Knapp (Physics and Sustainable Design, Evergreen State College), Dan Kammen (Energy and Resources Group, UC Berkeley), Barbara Levi (Contributing Editor, Physics Today).

For more information or to register, go to
<http://www.aps.org/fps/meetings/energy>

Call for Articles for our Newsletter

We would like to publish articles related to energy research and applications in our Newsletter. We also invite announcements related to energy research and applications from other organizations and APS units. Please send these to Jim McGuire(mcguire@tulane.edu).

New Members

If you know someone interested in membership, please encourage them to click on the “Join this Unit” link on the right of the GERA homepage (<http://aps.org/units/gera/>).

Help needed to develop the GERA website

We’d like to upgrade our GERA website (<http://aps.org/units/gera/>) If you are interested helping, please contact Jim McGuire (mcguire@tulane.edu).

Current GERA Leadership: Reuben Collins (Chair), Sue Carter (Chair-Elect), Dave Ginley (Vice Chair), Julia Phillips (Past Chair); Jim McGuire (Sec/Treas.)

Executive Committee Members: Joe Poon, Ellen Stechel, Al Compaan, Jim Misewich, Don Seigel, and Franz Himpfel.