



Summer 2008 Newsletter

Michael C. Wittmann, Editor

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Welcome

This second issue of the Newsletter of the Physics Education Research Topical Group (PERTG) summarizes the work of the past year, announces several new initiatives, and summarizes our efforts to help promote and advance physics education research (PER) within the American Association of Physics Teachers (AAPT).

The newsletter is brought to you by the Physics Education Research Leadership and Organizing Council (PERLOC) of the PERTG:

- Noah Finkelstein <noah.finkelstein@colorado.edu>
- Lillian C. McDermott <lcmcd@phys.washington.edu>
- Valerie Otero <valerie.otero@colorado.edu>
- Rachel E. Scherr <rescherr@gmail.com>
- Michael C. Wittmann <wittmann@umit.maine.edu>
- Charles Henderson <Charles.Henderson@wmich.edu> (voting member ex officio as chair of the AAPT RIPE committee)

PERLOC is empowered to undertake leadership and organizing activities for the PER community. We invite members of the community to identify important issues and help us facilitate communication between PERLOC and the members of PERTG. Get involved!

Membership

As of June, 2008, there were 789 members of the PERTG. Members are self-identified and pay an annual fee of \$25 (\$10 for students). All members of the AAPT may join PERTG. PERTG fees are paid at the time of joining AAPT or renewing AAPT membership and are deposited in a special account to fund PER-related activities and functions. PER-related activities include

- costs related to the annual Physics Education Research Conference (PERC), such as funds for invited speakers from outside PER and publication costs for the PERC Proceedings,
- financial support for PER-Central, the online clearinghouse containing links to PER-based materials, research results and publications, and discussion fora
- general funds for PER activities within AAPT.

Through the support of the community, we are able to enhance the value of the PER community within AAPT and throughout the PER community. Through PERTG, your voice can be heard and your concerns and ideas can be shared. Thank you for joining us and we look forward to your increased participation!

Electing new PERLOC members

This Fall, 2008, we will again hold an election to replace two members to PERLOC. Last year, Melissa Dancy and Rachel E. Scherr were elected, replacing Steve Kanim and E.F. "Joe" Redish on the council. We welcome Rachel on board and her term of service will last until December 31, 2010. Unfortunately, Melissa was unable to serve this year. In the Fall 2008 election we will be voting for two new members, one to fill Melissa's position and another to replace a current PERLOC member, yet to be determined.

We will continue to hold elections on a yearly basis, every fall. Details about this election have been mailed to you by Charles Henderson and are summarized below.

--> Phase 1: Nominations for initial slate of candidates.

All PERTG members have the opportunity to nominate themselves or someone else. To make a nomination, please send an email to Charles Henderson <Charles.Henderson@wmich.edu>.

The nomination process will end Sept. 19, 2008. All nominees will appear on the initial slate.

--> Phase 2: Selecting 8 finalists. All PERTG members may cast a vote for each nominee that they believe should be included on the final slate. There is no limit to the number of nominees that a member may vote for. The 8 nominees with the most votes will make up the final slate. Phase 2 voting will be open for at least two weeks and will end on Oct. 10, 2008. The 8 nominees with the most votes will make up the final slate. Finalists will be notified by Oct. 17, 2008 and will be asked to submit a 1-paragraph statement of candidacy by Oct. 24, 2008.

--> Phase 3: Electing 2 PERLOC Members. All PERTG members may cast a vote for up to two finalists. Phase 3 voting will be open for at least two weeks and will end on Nov. 14, 2008. The two finalists with the most votes will be elected to 3-year terms on PERLOC.

All PERTG members will receive an additional email prior to phases 2 and 3 of the election process with detailed instructions.

PERC 2008 Highlights

PERC 2008 in Edmonton, Canada was a wonderful success. Co-organizers Mel Sabella, John R. Thompson, and Nicole Gillespie provided a context in which the theme, "PER with Diverse Student Populations," was apparent throughout. The conference kicked off with a presentation from Angela Kelly, who discussed inequities in physics access and enrollment in urban high schools, and Kathryn Scantlebury, who discussed race-identity perspectives on math learning. Kenneth Tobin brought excitement to the dinner banquet by raising issues of fostering science learning in urban settings. In targeted poster sessions, community members discussed topics ranging from Implementing PER in other cultures to how PER-based instruction could be used to help underrepresented groups succeed. Invited speaker Rochelle Gutierrez discussed how Nepanthla can help educational research conceptualize knowledge for teaching, and Eric Dey discussed how technology can be used to support diversity. Overall, the PERC 2008 was an amazing success, with high quality research presented at the evening poster session and high powered discussions throughout. Thanks Mel, John, and Nicole for providing new opportunities and new language for us to use when discussing issues about diversity! Last year's PERC organizers, Chandra Singh, Michael Loverude, and Steve Kanim provided logistical assistance to the PERCo8 organizers. More on the 2008 conference can be found at: <http://www.compadre.org/PER/features/newsDetail.cfm?id=154>

Announcing a new PERC Proceedings editor

The Physics Education Research Conference Proceedings are published every year by the AIP Conference Proceedings and are available online at <http://www.aip.org>. In the fall of 2008, former editor Laura McCullough stepped down after three years on the editorial board of the Proceedings.

PERLOC has the responsibility of choosing the new editor of the Proceedings. We compiled a list of possible nominees and asked the existing editorial board for further suggestions. We are proud to announce that Mel Sabella will be the newest member of the editorial board of the PERC Proceedings, with a term that expires on Dec 31, 2010.

PERC 2009 Organizers and Theme Announced

The 2009 PERC, to be held in Ann Arbor, MI, will be organized by Nathaniel Lasry, Marina Milner-Bolotin, and Tetyana Antimirova. The topic of the meeting will be "The Varying Traditions of Inquiry in PER."

Organizers of the annual PER Conference are chosen by PERLOC based on submissions received during an open nominating process. We requested applications in the spring of 2009. Our criteria for choosing organizers include: relevance, breadth, and novelty of the theme as well as the perceived ability of the organizers to create and conduct a conference.

In coming months we will be soliciting nominations for 2010 PERC theme and organizers. Stay tuned.

Foundations and Frontiers of Physics Education Research

Paula Heron, Rachel E. Scherr, and Michael C. Wittmann are co-organizing the third bi-annual conference on the Foundations and Frontiers of Physics Education Research in Bar Harbor, Maine. The dates are June 15–19, 2009. Information about the meeting will be made public at <http://perlnet.umaine.edu/~ffper/2009/>.

PER Journal Update

In our first newsletter, we described the different journals in PER and listed their websites. Many journals publish papers of relevance to the PER community, and an exhaustive list is not possible. For those doing research or seeking information on how to apply research to teaching, we suggest using a broad net to capture relevant information. (See the next page for information on the PERTicles blog.)

The editorships and editorial boards of some journals have changed recently. At the American Journal of Physics, editor Jan Tobochnik has returned from his one-year leave of absence, to serve as interim provost at Kalamazoo College. Karen Cummings has stepped down after five years of service as editor of the Physics Education Research Section of AJP. We thank Karen for her service to this community. She will be replaced by Charles Henderson in January 2009. Also, the editorial board of the Physical Review Special Topics – Physics Education Research now includes Carl Wieman (chair), Ruth Chabay, Fred Goldberg, Ken Heller, Manjula Sharma, and Michael Wittmann.

For more journals, including ones in related fields like chemistry, biology, and engineering, check out the Journal webpage at the website of the University of Maryland PERG: <<http://www.physics.umd.edu/journals.htm>>. This information will eventually be transferred to the PERTG website.

New Volume in the Works: Getting Started in PER

Charles Henderson and Kathy Harper are editing a peer-reviewed Volume, Getting Started in PER. This volume will help PER students and faculty, and those who are just interested learn more about the history, methods, and tools of Physics Education Research. The four articles are: "An Overview of Physics Education Research" by Bob Beichner; "Developing Multiple-Choice Assessment Instruments" by Paula Engelhardt; "Qualitative Data Analysis" by Valerie Otero and Danielle Harlow; "Quantitative Data Analysis" by Xueli Zou. This Volume will be followed by other Volumes containing material of interest to the community. The Volume will be published as part of PER Central's series of "Reviews in PER" http://www.compadre.org/per/per_reviews/.

Web presence

We have invested financially in supporting PER-Central, which serves as a portal for PER materials and announcements. We strongly urge all PERTG members to visit PER-Central regularly at <http://www.per-central.org/>. We continue to plan for a regular newsletter such as this one, in essence an annual report, while instituting a more active web presence.

The PERTicles blog, <http://perticles.blogspot.com/>, was established in 2007 to link to newly published papers that are, broadly speaking, related to PER. Referenced journals include:

- The American Journal of Physics
- The Physical Review Special Topics – Physics Education Research
- Physics Education
- The European Journal of Physics
- The Physics Teacher
- The Journal of Research in Science Teaching
- The International Journal of Science Education
- The International Journal of Science and Mathematics Education
- Cognition and Instruction
- Learning and Instruction
- Memory and Cognition
- The Journal of the Learning Sciences
- Science Education
- Science and Education
- Physics Education Research Conference Proceedings
- Pre-prints at arxiv.org

Since October, 2007, over 150 articles have been posted. This information will eventually be transferred to the PERTG website, at which point all members of PERTG will be able to notify the community of relevant articles.

PER Jobs

Seeking a job in physics education research? Find out more information at <http://perjobs.blogspot.com/>. The list is updated regularly, and if you know of a position that isn't listed, contact the blog at PERJobs@gmail.com.