

Call for Papers
American Journal of Physics
Special Theme Issue on
“Experimental Research and Laboratories in Physics Education”
Topic of the 2010 Gordon Research Conference on Physics Research and
Education

We call for submissions for the special theme issue of the American Journal of Physics on the theme of the 2010 **Gordon Research Conference on Physics Research and Education: Experimental Research and Laboratories in Physics Education.**

The theme issue will be published in Spring 2010 and will precede the conference. **The deadline of submission of articles is September 15, 2009.** We encourage submissions in the following areas: new advanced lab experiments; the undergraduate research experience: new experiments and successful models; advances in introductory labs: new labs and new lab formats; and new upper-level labs. Please submit papers for the theme issue to AJP in the usual way, but indicate your interest in submitting to the theme issue.

The 2010 Gordon Research Conference will take place in June of 2010 and provide an opportunity to discuss the use of experiments and laboratories in the physics curriculum. The goal is to gather educators and researchers to discuss ways to understand and improve the role of experimentation and the use of laboratories in physics education.

Technological advances and the evaluation of the way physics is taught have led to many changes in the physics curriculum. Laboratories and the role of experimentation have not received the comprehensive attention that they deserve. Should the advanced lab be a research experience? What table-top technologies provide the best settings for advanced laboratories? What new research problems have found their way into the advanced lab? The value of a capstone research experience, which in most cases is dominated by experimental projects, has become increasingly clear. Which formats work? How can we effectively involve undergraduates in scientific research as part of the curriculum? How should we best use laboratories in the introductory sequence? Are there new ideas and models that work better than the conventional approach? What is the right balance between experimentation and simulation? Should the introductory labs for non-science majors differ from those for physics majors? What new types of introductory experiments address the needs of the other sciences? What innovative laboratories for upper-level courses have been developed?

College and university faculty, laboratory instructors, post-docs, graduate and undergraduate students, and equipment developers are encouraged to attend the conference.

Chairs: Chandralekha Singh and Enrique J. Galvez
Vice-Chairs: Peter Shaffer and Chris Impey