

2008 Workshops and Institutes presented by

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For more information on any of the programs listed below, go to: <http://uoregon.edu/~sokoloff/physcourse.htm> or contact David Sokoloff, Department of Physics, 1274 University of Oregon, Eugene, OR 97403-1274, e-mail: sokoloff@uoregon.edu, Phone: (541) 346-4755, Fax: (541) 346-5861.

**Winter 2008 AAPT Meeting Workshops in Baltimore, MD and
Summer 2008 AAPT Workshops in Edmonton, Alberta, Canada**
(Register at AAPT Web-site, www.aapt.org)

Using Research-Based Curricula and Tools to Revitalize Your Introductory Course Sun, July 20, 2008.

Description: This full day, hands-on workshop is designed for those interested in making learning in their introductory courses more active within the context of lectures, labs, and recitation hours. Participants will be introduced to physics education research-based strategies for each of these components of the course: *Interactive Lecture Demonstration (ILDs)*, *Web-Based ILDs*, *RealTime Physics*, *Activity Based Tutorials* and *Collaborative Problem-Solving Tutorials*, as well as modeling and video analysis tools. The tools and software used in this workshop are available for Macintosh and Windows computers. Results of studies on the effectiveness of these curricula will be presented. Those interested in making major changes in their introductory physics programs are especially encouraged to attend. Current versions of the *curricula*, along with *Teaching Physics with the Physics Suite* by E.F. Redish will be distributed. Supported in part by grants from the National Science Foundation.

Interactive Lecture Demonstrations--Physics Suite Materials that Enhance Learning in Lecture Mon, July 21, 2008. Time to be announced.

Description: The results of physics education research and the availability of microcomputer-based tools have led to the development of the activity-based Physics Suite. Most of the Suite materials are designed for hands-on learning, for example student-oriented laboratory curricula like RealTime Physics. One reason for the success of these materials is that they encourage students to take an active part in their learning. This one hour interactive session will demonstrate--through active audience participation--Suite materials designed to promote active learning in lecture--Interactive Lecture Demonstrations (ILDs). The demonstrations will be drawn from energy, heat and thermodynamics, oscillations and waves, electricity and magnetism, light and optics. Results of studies on the effectiveness of this approach will be presented. This session should be of special interest to teachers of large lecture classes as well as those who teach small classes where only one computer is available.

Dickinson College June 16-20 or June 23-27, 2008 (attend either).



FACULTY INSTITUTES

A series of one-week, NSF-sponsored summer institutes and follow-up activities for college and university faculty who wish to change their students' physics learning environment to a more active one. Institutes have already been offered Summers 2005, 2006 and 2007, and two one-week institutes with 20 participants each will be offered Summer 2008 at Dickinson College. Taught by Priscilla Laws and Pat Cooney.

At University of Oregon, Eugene, OR

Chautauqua Short Course: Using Research-Based Curricula and Tools to Promote Active Learning in Introductory Courses June 7-9, 2008

Description: This NSF-sponsored, hands-on course is designed for those interested in making learning in their introductory course more active either within the traditional course structure of lectures, labs, and recitation hours, or by re-structuring their course (e.g., into a workshop or studio course). Participants will be introduced to physics education research-based strategies for each component of the introductory course: *Interactive Lecture Demonstration (ILDs)*, *Web-Based ILDs*, *RealTime Physics* labs, *Activity Based Tutorials*, *Collaborative Problem-Solving Tutorials* and *Workshop Physics*, as well as modeling and video analysis. The tools and software are available for Macintosh and Windows computers. Results of studies on the effectiveness of these curricula will also be presented. Those interested in making major changes in their introductory physics programs are especially encouraged to attend. Participants will receive current versions of the curricula, along with *Teaching Physics with the Physics Suite*, a comprehensive book by E.F. Redish (University of Maryland) on strategies for implementing physics education research-based curricula. Topics will be chosen from both semesters of the introductory physics course.

Open to teachers of undergraduate students in institutions of higher education in the U.S. High school teachers and faculty from outside the U.S. are also admitted if space is available. There is a small course application fee (\$100), but no tuition. Participants are responsible for their transportation, lodging and meals. Reasonably-priced accommodations will be arranged.