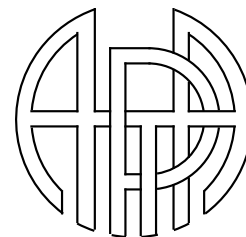


AMERICAN ASSOCIATION OF PHYSICS TEACHERS

Spring 2004 meeting of the Southern California Section

Saturday, April 3, 8:15 AM–4:30 PM



Knudsen Hall, Physics Building, UCLA — Hilgard Ave., Los Angeles
Local Host: Walter Gekelman — Local Contact: Bill Layton <layton@physics.ucla.edu> 310-206-8298

8:15 AM Registration, Refreshments, Exhibits	11:00 AM Invited Talk “Development and Implementation of Online Physics Courseware” Maha Ashour-Abdalla and David Schriver, Center for Digital Innovation, UCLA
8:30 AM Workshop/Tours “Low Cost Physics Experiments for Overcrowded and Poorly Equipped High Schools Classrooms” Leaders: Gary Reynolds and Dean Papadakis Location: Knudsen 2222 “Tour of Plasma Physics Laboratory” Leader: Walter Gekelman Time: Bus departs at 8:30 AM and returns at 9:45 AM Location: Bus departs from Knudsen Hall Accommodation: 30 people maximum “Tour of Visualization Portal” Leader: Matt Malkan, UCLA Time: Two tours beginning at 8:30 AM and 9:15 AM Location: Gather at Knudsen Hall Accommodation: 30 people maximum each tour.	11:50 AM Announcements/ Business Meeting. 12:00 No-host Lunch Your choice of Panda Express or La Cucina at UCLA Ackerman Union, or Trek to Westwood, or Bring your own sack lunch.
10:00 AM Welcome and Introductions Claudio Pellegrini, Chair of Physics and Astrophysics	1:15 PM “Show and Tell” Marty Simon, Glen Malin, et al.
10:15 AM “Is Pressure Really Lower in a Moving Fluid?” Evan Jones, Sierra College	2:15 PM Invited Talk “Unveiling a Supermassive Black Hole at the Center of Our Galaxy” Andrea M. Ghez, UCLA
10:35 AM “SPECTRA Teachers Workshops” Sarah Johnson, University of La Verne	3:15 PM Invited Talk “When Plasmas Collide” Walter Gekelman, UCLA
	4:15 PM Order of Magnitude Contest & Door Prizes 4:30 PM Closing Remarks/Meeting Adjourns

Abridged Abstracts: (Full versions available at section website.)

Invited Talk:

“Development and Implementation of Online Physics Courseware”

Maha Ashour-Abdalla and David Schriver,
Center for Digital Innovation, UCLA

... This talk will discuss distance learning courseware developed by the Center for Digital Innovation (CDI) at UCLA for high school students. In particular, Advanced Placement (AP) on-line courses have been developed by CDI targeted to students whose own high schools do not offer such courses. Students can take the course entirely on-line and receive a grade that is fully equivalent to an in-class grade. ... Conventional in-class lecture periods are reproduced on-line using a seamless combination of animation, video and voiceover. ... A discussion of the pedagogy behind the courseware will be presented along with a presentation of AP courses developed for Physics

Invited Talk:

“Unveiling a Supermassive Black Hole at the Center of our Galaxy”

Andrea M. Ghez, UCLA

... Based on a high-resolution study that began in 1995, we have the most definitive evidence yet for the existence of a supermassive black hole at the center of our Galaxy. ... we have measured the full 3-dimensional orbits for multiple stars, which are all making close approaches to the supermassive black hole. The most dramatic case is that of the newly identified star S0-16, which passes a mere 90 AU from the center of the dark mass at a velocity of 9,000 km/sec. This provides the strongest case yet for the presence of a supermassive black hole at the center of the Galaxy.

Invited Talk:

“When Plasmas Collide”

Walter Gekelman, UCLA

... Plasmas are devilishly complicated as the mathematics that describe them is highly nonlinear. With quiescent and highly reproducible plasma sources such as the Large Plasma Device (LAPD) at UCLA it is now possible to design and perform detailed experiments and make three-dimensional measurements, as a function of time. The study that we will describe here is the expansion of a dense, rapidly moving plasma into a background plasma which can support a variety of waves. ... The talk will show how the currents develop, and how they radiate waves. The aim of the talk is to illustrate the subtle behavior of a nonlinear system and give a brief introduction to plasma physics.

Workshop:

“Low Cost Physics Experiments for Overcrowded and Poorly Equipped High Schools Classrooms”

Leaders: Gary Reynolds and Dean Papadakis

A workshop for newer physics teachers to see and try some quality experiments in mechanics, optics, fluid dynamics, and electricity!!

The Order of Magnitude Contest Question

“What per capita land area would be the result of a 1% per annum world population growth sustained for the next 1000 years”

As always, you are free to interpret the question any way you like, but remember: The winner—i.e., the person with the median answer—gets first pick of the door prizes! Must be a member and must be present to win.

Show’n Tell!

There’s still time available. Share a favorite demo with your friends.

What’s for lunch?

Ackerman Union will be opened with the limited choices of Panda Express or La Cucina. Westwood offers many options but it will be a bit of a trek. There are a number of vending machines near Knudsen Hall, or you can simply bring your own sack lunch and picnic on the lovely UCLA grounds.

Grateful thanks to our commercial supporters

Not available at “press time,” but we *do* appreciate your support!

Future Meetings

AAPT Summer 2004, July 31-Aug 4, CSU Sacramento
SCAAPT Fall 2004, ~end of October, TBA
AAPT Winter 2005, Jan 8-12, Albuquerque

A. John Mallinckrodt
Physics Department
Cal Poly Pomona
3801 West Temple Avenue
Pomona, CA 91768

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for membership expiration date



AMERICAN ASSOCIATION OF PHYSICS TEACHERS
Spring 2004 Meeting of the Southern California Section
Saturday, April 3—UCLA—www.ucla.edu

How do I get to the meeting?

UCLA is located in Westwood.!

From the 405: Exit and go east on Wilshire Blvd. Turn left on Westwood Blvd. Turn right on LeConte. Turn left on Hilgard. Turn left on Westholme to enter the campus and drive to the parking kiosk to get access to Lot 2.

See maps at the UCLA website <http://www.ucla.edu/map>

Parking is \$7.00 at the entrance kiosk. Sorry, no breaks! This is UCLA parking. You should park on Lot 2 accessible from Hilgard on the east side of the campus.

The meeting will be held in Knudsen Hall, the UCLA Physics building.

Where do I pay?

Section dues are just \$10/year and are our primary source of support; we receive nothing from the national organization. Members get final programs before the meeting and are eligible for great door prizes. See the SCAAPT website for how to sign up by mail or do it at the meeting. We need your support! Please help introduce us to your school or district colleagues. Bring a new teacher; bring an old one!

Subscribe to the SCAAPT email list

For members *and* nonmembers. (We think you'll join eventually!)
Send a message to

listproc@listproc.csupomona.edu

with the single line:

subscribe scaapt your_first_and_last_name

Submit a Change of Address Online

You may submit changes of address using the online form available via a link from the section website or directly using

http://www.csupomona.edu/scaapt/ch_add.html

Visit the SCAAPT website

For meeting information, a list of section officers and contacts, link to the national AAPT, etc.

<http://www.csupomona.edu/~scaapt>

SCAAPT Officers 2002-2003

President:	Forouzan Faridian	faridian_forouzan@smc.edu
Vice President:	Sarah Johnson	johnsosa@ulv.edu
Vice President HS:	Gary Reynolds	xreynoldsg@aol.com
Past President:	Glenn Mallin	gmalin@iusd.org
Section Rep:	Harvey Leff	hsleff@csupomona.edu
Treasurer:	Mary Mogge	memogge@csupomona.edu
Secretary	Nuria Rodriguez	rodriguez_nuria@smc.edu
Editor:	John Mallinckrodt	ajm@csupomona.edu