

The Fall Meeting of the Southern California Section was held Saturday, November 3 at Mt. San Antonio College in Walnut, California. Special thanks to the local host, Martin Mason, for arranging the meeting site and to the Mt. SAC Physics Department for providing coffee and doughnuts. Thanks also to the Mt. SAC Society of Physics students for grilling and selling lunch. Approximately 70 people attended.

The meeting began with a workshop: "Data Visualization and Video Analysis" led by Martin Mason. The workshop provided hands-on experience with the use of video-based motion analysis in a wide range of applications, including the teaching laboratory, projects, and homework. Participants learned how to make digital video clips for analysis, as well as how to use video analysis for homework problems and in the classroom. The workshop used the new video feature of the Logger Pro 3.5 software from Vernier Software & Technology that allows video movie clips to be analyzed and synchronized and replayed side by side with MBL data. Evaluation copies of analysis software, selected digital video clips, and a CD with many video analysis labs that can be edited by the user were provided to the participants for their use after the workshop.

Dr. Charles De Leone from California State University, San Marcos gave the morning invited talk "Rethinking the Role of Physics in the Undergraduate Education of Biologists." Dr. De Leone described how current biological research often requires extensive use of quantitative and computational tools and how researchers and funding agencies have become concerned that the traditional undergraduate biology curriculum is not preparing biologists to immediately contribute to research. As biologists look to adjust their curriculum accordingly, physics educators have the opportunity to reconsider their role in the preparation of future biologists. His talk explored the open question of how physics instructors can best serve the evolving needs of biology. Some of the issues discussed were: the origin of the calls for change in the biology curriculum, the current state of the introductory physics courses for biologists, what has been learned from efforts to remake this course, and ways that physics educators can enhance their contribution to the undergraduate biology curriculum.



Dr. Mike Brown from California Institute of Technology presented the afternoon invited talk "How I killed Pluto and Why It Had It Coming." Dr. Brown described how his group has been scanning the skies for the past seven years for planets beyond Pluto. In 2005, after a search of about half of the sky and the discovery of dozens of objects almost the size of Pluto, they finally found Eris, the first object larger than Pluto, and the first that might have been called a new planet. In addition to a new avalanche of scientific questions, that discovery drove home the need to answer a question that astronomers had been unwilling to answer for years: "What is a planet?" He discussed the story of the discovery and gave a perspective on why the question of planethood is difficult and why the new class of dwarf planets was created to describe all of these objects.

The ever popular Show 'n' Tell featured demonstrations by Walter Christensen Jr., Gary Reynolds, Myron Mann, Phil Wolf, Martin Mason, and Bill Layton.



The following contributed talks were presented:
"Enhancing Physics Learning with Online Homework Systems" Ertan Salik, Cal Poly Pomona.

"Improving Student Performance in Quantum Mechanics: Practice Problems in Lecture vs. Discussion Problems in Small-groups" Homeyra Sadaghiani, Cal Poly Pomona.

"Bernoulli Blew It!" Fred Carrington, Pierce College.

"Staying in Focus - an Online Optics Tutorial on the Eye" Barbara Hoeling, Cal Poly Pomona.

"Facilitating active learning with Ubiquitous Presenter and TabletPCs" Edward Price, CSU, San Marcos.

"Mediawiki, centralized website management" Martin Smith-Martinez, Mt. SAC & Cal Poly Pomona.

There was a brief business meeting where the PTRAs initiatives and other news from AAPT were discussed. In preparation for SCAAPT's spring 2008 elections, members were encouraged to nominate themselves or others to be section officers.

The meeting ended with our World Famous "Order of Magnitude Contest." This meeting's question was: "How many tons of CO₂ are liberated to the atmosphere every day due to the consumption of carbonated beverages?" Jimmy Liao won with the median answer of 5000 tons. His prize was a two volume set of Harry Meiners' Physics Demonstration Experiments, donated by Glenn Malin. Door prizes were won by Francisco Izaguirre (Vernier gift certificate and tee shirt), Cliff Gerstman (GoMotion from Vernier), Sherry Brown (*The Flying Circus of Physics* by Walker from Wiley), and Jeff Phillips (*Teaching Introductory Physics* by Arons from Wiley). We thank our corporate sponsors – Vernier and John Wiley & Sons, Publishers – for their support and donation of door prizes.

The Southern California Section will hold its Spring Meeting in April. Please bookmark the SCAAPT URL <http://www.scaapt.org/> and check for the date in early Spring.

Mary Mogge, Section Representative
Southern California Section