

SPRING 2005 MEETING
SOUTHERN ATLANTIC COAST SECTION
AMERICAN ASSOCIATION OF PHYSICS TEACHERS
MARCH 11-12, 2005

FRIDAY MARCH 11
FALANY PERFORMING ARTS CENTER

- 5:30 PM REGISTRATION BEGINS
- 6:00 PM DINNER
- 7:00 PM WELCOME – DR. ANDREA HARDIN – VICE PRESIDENT FOR ACADEMIC AFFAIRS
AND DEAN OF THE FACULTY REINHARDT COLLEGE – REINHARDT COLLEGE
- 7:10 PM AN INTERVIEW WITH DR. EINSTEIN – WITH DR. EDDIE ROBERTSON
(PROFESSOR OF BIOLOGY REINHARDT COLLEGE AS ALBERT EINSTEIN) AND DR.
RICHARD SUMMERS (PROFESSOR OF PHYSICS AND MATHEMATICS REINHARDT
COLLEGE) AS INTERVIEWER
- 7:30 PM COLD FUSION – DR. JOHN RUSSELL

SATURDAY MARCH 12
HILL FREEMAN LIBRARY

PAPERS

8:00 AM REGISTRATION AND CONTINENTAL BREAKFAST

8:45 AM SOME ASPECTS OF TEACHING PHYSICS FOR STUDENTS WITH
LEARNING DISABILITIES

Mikhail M. Agrest, College of Charleston

Students with learning disabilities, especially those suffering from dyslexia, represent the audience most liable to problems with following the professor's outline and keeping up with lecture notes. Extreme growth of the technical tools and methods of teaching often leads to complications, especially for students with learning disabilities. While exclusion of the recording process leads to loss of powerful learning instruments, the partial reduction combined with the appropriate design of visual aids becomes a powerful tool in helping students with dyslexia create notes. Both a method and a tool were developed to meet students' need to make notes recording the most important information while concentrating on the interaction with the professor in class

9:00 AM THE PHYSICS TEACHERS OF TOMORROW ARE THE
ELEMENTARY STUDENTS OF TODAY

Lila M. Adair, Piedmont College, Athens Campus

Many elementary school teachers are afraid of science and avoid teaching it. This paper will demonstrate ideas from my science-friendly methods classes for teachers.

9:15 AM BEATS AND AURAL HARMONICS

Matt Marone, Mercer University

The non-linear response of the ear produces harmonics, as well a sum and difference frequencies. Beats and combination tones are generated. Demonstrations and a LabVIEW simulation will be presented.

9:30 AM USING THE SPINS APPLET TO BUILD IDEAS OF QUANTUM
MECHANICS

Michael Burns-Kaurin, Spelman College

I will discuss how I used the Spins applet (<http://www.physics.orst/~mcintyre/ph425/spins/>) in the third-semester introductory course and in the senior-level quantum mechanics course to introduce the students to the fundamental ideas of quantum mechanics.

9:45 AM THE RURAL PTR A PROGRAM, WHERE WE ARE, WHERE ARE WE GOING!

Don Franklin

SCAS had on e of the first Rural Programs with South Carolina. Last year we were able to start a program in Georgia. Now we are considering a site in Tennessee which would service our teachers in the northern areas of south Carolina and Georgia. See how you can help make all three sites successful.

10:00 AM Break

10:30 AM FRICTION ON AN INCLINED PLANE

Don Franklin

It seems we are so busy doing away with friction that our students don't see how our world really operates. I went back to wooden blocks and masses to have students solve for the friction and then use it for tension problems on an incline.

10:45 AM WHAT IS A TSUNAMI!

Richard Summers, Reinhardt College

The recent wave of tsunamis around the Indian Ocean on December 26, 2004 has sparked the curiosity of the public. It provides a wonderful opportunity to educate people about the physics of tsunamis, what we understand about them, the iterative nature of the modeling process and our efforts to predict future occurrences.

11:30 AM LUNCH AT GORDY DINING HALL

NOON BUSINESS MEETING AT GORDY DINING HALL

WORKSHOP

1:00 PM MORE – PHYSICS, TOYS AND EINSTEIN

Dr. Ray Turner, Clemson University

This World Year of Physics is in honor of Einstein's outstanding work in 1905. This presentation will utilize a number of children's toys including toy cars, a bungee jumper, an airplane, and an infrared blaster, to show

how toys can be used to illustrate principles of physics. With the help of special guest, Albert Einstein, we will see how the toys might have influenced Einstein's work. (supported in part by the Bauder Fund of AAPT)