

PHYSICS AT SOUTHERN

Volume 40, electronic issue #5
June 4, 1999

Published once in awhile
For students, past & present, and friends of the Department

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(Physics Dept

EDITOR FIRED

The editor of Physics at Southern was fired on May 15 for undisclosed reasons. The associate editor, Ray Hefferlin, has been promoted to the position of editor.

ADDRESS CHANGES

When you change ISP, please do notify your friends (which we hope includes us)! The mailing list for these electronic issues remains essentially constant in size, in spite of the probable fact that more former students are using electronic mail, due to changed addresses.

SPEAKING OF MAILING LISTS

The "International Directory of Professional Astronomical Institutions" has once more asked that the Physics Department submit information about itself for the next edition. Research carried on here is relevant to astrophysics (as well as to mathematical chemistry) because it gives astronomers data with which to determine the chemical composition of stars, planetary atmospheres, nebulae, and the interstellar medium.

SENIORS LEAVE THE REAL WORLD *

The 80th, 81st, and 82nd seniors graduated from the Physics Department received their degrees this spring.

Michael Brandt had an extended vacation in Nabimia, seeing among other things the largest meteorite (the "Haba") on display in the world. He began work at Oak Ridge National Laboratory this week, working in the radioactive heavy ion beam group at UNISOR.

Saffron LeBlanc will be married and then will enter graduate study in Physics at the College of William and Mary.

Myla Thomas will be married and then start graduate work in Mathematics at the University of Texas at Austin.

* It was brought to the editor's attention (by the Commencement speaker at the 1993 graduation service of Andrews University) that academia is more "real world" than is the rest of human activity. Here (at places like SAU now)

folks can disagree without violence; we can explore all kinds of new ideas; we can to some extent live free of toadying politics.

SIGHT IMPROVEMENT

Whoops, we mean "Site Improvement." The present cycle of Web site improvements has been completed* by senior Blake Laing, Dr. Caviness, and Dr. Hefferlin. Some of the improvements are

1. A summary, on the home page, of what you may find,
2. List of publications related to research projects,
3. Abstracts for the same,
4. List of classes offered,
5. Class schedules for some of them,

* All but for the eternal problems with counters on Windows NT.

VIRTUAL PENDULUM FUNCTIONS WELL

If you have any doubt, click on the "Facilities, Pendulum" link on our Home page; it will lead you to a digital-video-camera "photograph."

SEMINAR SERIES DOWNSIZED

The Physics Department seminar series, begun in December of 1998, has been quite successful (e.g., attendees lingering to talk "physics" after the seminars). It has been decided to hold them every third week rather than every second ("every other") week next year. The schedule* as we "go to press" is as follows:

1999

September 9: Professor Vladimir Mastrykov, University of Texas at Austin: "Spectroscopic Methods in Chemistry"

September 30: Jonathan Knoll, AS senior at Southern: "Analytical Theory of Spectroscopic Data for Small Molecules"*

October 21: Ken Caviness, Southern: "General Relativity? Who Needs it? Extending Special Relativity to Situations Normally Requiring General Relativity"

November 11: Blake Laing, senior: "My Summer at Los Alamos National Laboratory"*

December 2: Ken Gano, Hixon High School, "The Use of Technology in Teaching"*

2000

January 6: Henk Kuhlman, Southern: Title not selected *

January 27: Dr. Dave Stuart, Fermilab: "... Supersymmetry ... "

February 17: To be scheduled, preferably a student *

March 16: Ray Hefferlin, Southern: "Let's Teach Guessing"

April 6: Chris Hansen, Southern: "Mass Spectrometrk"

* Titles are tentative and/or some of the presenters have not yet been invited!

FRACTIOUS BRAWL ERUPTS IN PHYSICS DEPARTMENT

Theories and experiments are proposed and shot down! Agendas of staff meetings are preempted by blackboard diagrams! Photographs are taken at strange orientations in the parking lot!

The question is "Does the moon 'point' to the sun"? Or more precisely, "If you draw a line between the horns of a crescent moon, and then if you then construct the perpendicular bisector to that line, does the perpendicular bisector pass through the apparent position of the sun?"

Great circles, apparent vs. three-dimensional positions of the sun and moon, optical illusions, and projections onto the celestial sphere have all been (so to speak) thrown back and forth.

Perhaps we will apply to some foundation to build a huge armillary sphere from the center of which it will be easier to make the projections.

Stay tuned.

FORMER PHYSICS MAJORS/MINORS HAUNT HSC

This summer we will be honored by the presence in our locality of (and visits to HSC by) at least the following former students:

Shandelle Henson: June 15 to 30 (job transition)

Steven Kurti: June 20 to 27 (to be at his brother's wedding and to feel some warm Tennessee summer)

James Robertson: June 1 to 21 (summer school)

Jason Wohlers: the present to sometime in August (reviewing)

RUMOR

This august publication deals only in facts. It is a fact that there is a rumor to this effect: Still another Physics major will be selected as Alumnus of the Year for Homecoming this fall.

This rumor has just been shot down, for the individual alleged to have been selected has already been Young Alumnus of the Year and it is impossible to receive both honors.

SOME GOOD NEWS

Dr. Hefferlin had been scheduled to make a presentation during the first two days of the Third International Conference on the Philosophy of Chemistry in Columbia, South Carolina (July 28 or the morning of July 29).

But then the times available for making the presentation _vanished_ because (a) on July 28 the scheduled events of the conference turned out to be registration and introductions, and (b) the only available frequent-flyer seats leaving Columbia for Atlanta (to connect with a flight to Europe) were for the 6:10 AM flight on July 29.

Dr. Hefferlin contacted the program chairman to suggest withdrawing his presentation. But the chairman pointed out that one can easily drive from Columbia to Atlanta in time for a London flight if the presentation were to be early on Thursday morning. Then, in an incredible gesture of courtesy, he changed the seminar schedule all around so as to put the presentation on the program first thing in the morning on July 29!

It seems that God is willing to have the presentation take place, that the program chairman is kind, and that Physics at Southern has a reputation in South Carolina.

MORE GOOD NEWS

Steve Kurti has passed the qualifying exam to be officially admitted to PhD candidacy!

Rick Cavanaugh, one of our most faithful correspondents, is continuing his collaboration with the ALEPH experiment here at CERN. This has meant that the transition from student to Post-Doc has been rather easy. However, this has also meant that much more has been expected of him on a much faster time-scale. For example, he was rather shocked when he met one of the Ph.D. students at Heidelberg. The student's first question was, "Great to meet you. What will be the topic for my PhD dissertation?"

David Hanon continues to have his superb astrophotography published in astronomy magazines; his article on "Better Resolution through Technology" appeared in *Sky and Telescope*, November, 1998, pp. 59ff.

Ray Hefferlin is solely responsible for the contents of this edition