

WINTER NEWSLETTER
OF THE
SOUTHEASTERN SECTION
OF THE
AMERICAN PHYSICAL SOCIETY

APRIL 1, 1999

The 66th Annual Meeting of the Southeastern Section of the American Physical Society (SESAPS) will be held November 7-9, 1999 (Sunday-Tuesday) in Chapel Hill, NC. Our host for this meeting will be the University of North Carolina Physics and Astronomy Department. The local arrangements committee is chaired by Thomas B. Clegg, who may be reached at (919)-962-2079 (phone), (919) 962-0480 (fax), and clegg@physics.unc.edu (e-mail). The Program Committee Chair is Thomas F. Gallagher of the University of Virginia, who may be reached at (804)-924-6817 (phone), and tfg@virginia.edu (e-mail).

THIS IS THE FIRST CALL FOR ABSTRACTS OF CONTRIBUTED PAPERS: SESAPS will use electronically submitted abstracts (brief instructions are at the end of this newsletter) for publication in the Bulletin of the AMERICAN PHYSICAL SOCIETY. The deadline for the receipt of contributed papers and abstracts is no later than **Friday, August 27, 1999**. The entire program will be organized the following week. All abstracts received electronically by the deadline will be published in the November, 1999, BULLETIN of the AMERICAN PHYSICAL SOCIETY.

All abstracts of contributed papers must be prepared in the standard APS format as specified in recent issues of the APS News. If the abstract is submitted to the APS only on paper, just the title and authors will appear in the BULLETIN.

THE ABSTRACT FEE HAS BEEN ELIMINATED, BUT THE FEE STRUCTURE FOR THE MEETING HAS BEEN CHANGED. THE NET COST TO MEMBERS WHO SUBMIT ONE ABSTRACT WILL BE LOWER. The Program Chairman is:

Dr. Thomas Gallagher
Department of Physics
University of Virginia
Charlottesville, Va. 22901
(804) 924 6817 (Phone)
(804) 924 4576 (Fax)
TFG@VIRGINIA.EDU (e-mail)

The scheduled time for your presentation must be obtained from the bulletin WHICH WILL BE AVAILABLE ELECTRONICALLY on the WWW. Meeting rooms will have an overhead projector and chalkboard - to request other audio-visual aids, including 35 mm projectors, please make your request in writing by typing it in the special instructions box of the abstract template. Any questions about the program should be directed to Dr. Gallagher.

THE INNOVATION FROM PREVIOUS MEETINGS IN CONTRIBUTED PAPERS WILL BE CONTINUED! Invited papers at this meeting, as at all APS meetings, are given by experts in areas selected by the Program Committee, and these talks are usually of thirty minutes duration. Contributed papers, however, are on topics of the author's choice and are ten minutes in length. On the day following the abstract deadline, all papers are organized into sessions and the sessions into the program of the meeting. This year the Program Committee will continue an idea suggested by an APS member. Some of the contributed abstracts are of such interest that the committee will INVITE THE AUTHORS to give a SPECIAL PAPER of twenty minutes duration on the topic of their abstract at the beginning of the contributed paper session to which their talk is assigned. There will only be a few such papers selected. The invitations will be listed in the printed program of the meeting and will be verified promptly by mail to the authors. If the author(s) would like to be considered for such an invitation, they are asked

to type the following statement in the special instructions box: If invited to do so, the author is willing to expand the talk for the above abstract to twenty minutes.

THE PROGRAM CHAIRMAN INVITES SUGGESTIONS FROM THE MEMBERSHIP REGARDING THE SUBJECT OF INVITED PAPERS. Currently Sunday's invited paper sessions will emphasize physics teaching and education and astrophysics. Special emphasis will also be given on Sunday to the Student Physics Society Program. Facilities will be available for poster sessions for student research papers. On Sunday evening, the UNC-Chapel Hill Physics and Astronomy Department will host an open house and the traditional lecture demonstration show on campus in Phillips Hall.

On Monday, November 8, SESAPS will be joined by the NC Section of the Materials Research Society and the SE Section of the American Vacuum Society which will hold their traditional meeting sessions with us. SESAPS invited paper sessions will emphasize thermo-ferroelectrics and medical imaging with hyperpolarized gases, physics with high-intensity lasers, and nanoscale materials and imaging. The MRS/AVS programs will emphasize soft condensed matter physics and materials in the morning sessions, and more traditional condensed matter and materials subjects in the afternoon. Poster sessions for student research projects will again be emphasized. The SESAPS Business Meeting will be held late Monday afternoon followed by the SESAPS/MRS/AVS banquet on Monday evening.

Tuesday's SESAPS invited paper sessions will emphasize high-energy physics and string theory, physics with free electron lasers, early experimental results at the CEBAF accelerator, and the physics of non-linear systems and chaos.

Naturally, contributed papers on any subject in physics will be accepted but may not have a session devoted exclusively to their subject matter.

A PROGRAM OF PHYSICS TEACHING DEMONSTRATIONS IS BEING PLANNED. On Sunday evening, November 7, the UNC Physics and Astronomy Department will host an open house and the traditional lecture demonstration show on campus in Phillips Hall.

THE UNIVERSITY OF NORTH CAROLINA PHYSICS AND ASTRONOMY DEPARTMENT will be our host for this meeting. All primary meeting sessions will be held at the Sheraton Chapel Hill Hotel, 1 Europa Drive, which will also serve as the host hotel. The hotel is located between Chapel Hill and Durham on U.S. Hwy 15/501, two miles southeast of its intersection with Interstate Highway 40 and approximately three miles northeast of downtown Chapel Hill and the UNC-Chapel Hill campus. The guaranteed room rate is \$99.00, and reservations can be made by calling (800)-325-3535 or (919) 968-4900. Reservations should be made by September 30, 1999. Other hotels, i.e. Hampton Inn, Holiday Inn, Days Inn, and Red Roof Inn, plus several restaurants and shopping centers are also located nearby.

On Monday, November 8, we will be joined by the NC Section of the Materials Research Society and the SE Section of the American Vacuum Society which will hold their traditional meeting sessions with us. Effort will be made to plan an overall program attractive to both undergraduate and graduate students.

The traditional COSEP meeting, where SE physics department chairs share common interests and concerns, will be resurrected with a lunch on Sunday, 11/7, between 12:00 noon and 2:00 PM. The traditional banquet will be held on Monday evening.

TRAVEL TO CHAPEL HILL. Chapel Hill is located in the southwestern corner of the prosperous Research Triangle region of North Carolina, about 13 miles southwest of Durham, and at 30 miles west of Raleigh. It can be reached conveniently by automobile (I-85 to US Hwy 15/501 from the north; I-85 to I-40 from the southwest, I-40 from the west and east, and US Hwy 15/501 or I-95 and I-40 from the south). Chapel Hill is also located about 18 miles west of the Raleigh-Durham Airport, which is served by frequent convenient flights of many major airlines.

THE REGISTRATION FEE STRUCTURE HAS BEEN CHANGED. In order to accommodate the electronic

submission of abstracts, the executive committee of SESAPS made the following changes in the registration fee structure. It should be emphasized that a member submitting one abstract will save money with the new fee structure. Registration will be \$35.00 for SESAPS and other APS members, \$50 for nonmembers, \$5 for retired physicists and \$15 for graduate students. Awardee and banquet speakers will not pay the registration or banquet fee. Undergraduate students may register free at the Society of Physics Students' table. Registration will be open at the headquarters hotel from 18:00 to 21:00 on November 12 and will continue each day of the meeting.

A MEETING OF THE SOCIETY OF PHYSICS STUDENTS is also anticipated in conjunction with the SESAPS meeting and will include a student paper session where the Marsh W. White Award will be presented for the best paper given at that session.

TRAVEL SUPPORT WILL BE AVAILABLE FOR STUDENTS THIS YEAR. Students will be pleased to learn that modest travel grants will again be available for those presenting research papers at the SESAPS sessions. SPS students giving papers in the SPS sessions only are not eligible for travel support. An application is included in this letter.

NOMINATIONS FOR THE JESSE BEAMS AWARD FOR OUTSTANDING RESEARCH AND THE GEORGE B. PEGRAM AWARD FOR EXCELLENCE IN TEACHING ARE REQUESTED AT THE EARLIEST POSSIBLE TIME, BUT NO LATER THAN MAY 1, 1999. The nomination letter should include appropriate supporting information with no more than three letters of support for each nominee. The materials for the Beams award should be sent to:

Dr. Donald Clayton
Department of Physics and Astronomy
Clemson University
Clemson, SC 29634-1911
clayton@gamma.phys.clemson.edu

The materials for the Pegram award should be sent to:

Dr. Ray Hefferlin
Physics Department
Southern Adventist University
Collegedale, TN 37315-0370
Hefferlin@southern.edu

SESAPS members are urged to nominate candidates for these awards, as a large number of candidates generally results in meaningful awards. Last years winners were Donald D. Clayton of Clemson University who won the Beams award and L.D. Hendrick of Francis Marion University who won the Pegram award. A special Pegram award is sometimes given to recognize exceptional service. This year a award was given to E. Ira Howell of Mississippi State University. While on the subject of awards, Ted E. Cook of UNC Wilmington and Ryan Munden of Stetson University won the Marsh White for the best paper on undergraduate research.

SUGGESTED NOMINATIONS FOR SECTION OFFICERS should be sent to the Secretary at the address given at the end of this letter for consideration by the Nominating Committee, which is made up of the Executive Committee.

CONGRATULATIONS TO THE ELECTION WINNERS. The new vice chair is Ron Mickens of Clark Atlanta. A new executive committee member that will serve from 1999-2002 is Lawrence Akers of UT Chattanooga.

The Francis G. Slack Award

for excellence in service contributions to physics in the southeast will be established.

The Southeastern Section of the American Physical Society deems it appropriate to create an Award for Excellence in Service Contributions to Physics in the Southeast. The Section now has two awards, one to recognize Excellence in Research in the region (the Jesse Beams Award) and one to recognize Excellence in the Teaching of Physics in the region (the George B. Pegram). Physics in the Southeast has experienced a rapid growth since World War II and, in particular, since about 1960, far greater growth than other parts of the nation. It is appropriate to recognize those who have contributed to that advance. Many people have worked unselfishly to (a) bring about significant new research facilities in the region, (b) significantly strengthen and raise the stature of particular departments of physics in the region, (c) provide significant leadership and work to strengthen and build the Southeastern Section of the American Physical Society, Sigma Pi Sigma, the Society of Physics Students and other regional organizations, (d) develop physics consortia of universities and/or new research institutions that have benefitted the region and the nation, (e) carry out other service and administrative activities such as organizing major conferences held in the region, international exchanges, public outreach to K-12 and so forth. They have done so on a broad scale that have raised the stature of physics in our region on a national and international scale. The (a)-(e) are recommended criteria for receiving the award.

In short, an award to recognize members of the physics community in our region for significant service and/or administrative activities that have benefitted a broad segment of physics and/or the public as outlined above seems most appropriate for SESAPS. The emphasis would be in the breadth of the person's influence on physics in the Southeast, the nation and the world in contrast to other awards recognizing personal research and teaching accomplishments. It is proposed that the award be named for Francis G. Slack, a distinguished Vanderbilt University scientist who was charter member of the Southeast Section and who contributed significantly to its development.

A LETTER FROM THE CHAIR

First, let me tell you of a pressing problem for all divisions in the American Physical Society. Membership in almost all Divisions of the APS is declining at a time when total APS membership is increasing. While the APS has no ready explanation for this change, it seems to me that making it more difficult to find the check off for the Divisions when renewing your annual membership, might be an explanation. Remember, that they have now gone to renewing memberships throughout the year, so you need to talk with your colleagues right away. I am asking each of you who read this newsletter to get one of your colleagues to check off SESAPS membership when they renew their APS membership. It costs nothing to be a member of SESAPS and we receive funds from the APS based on the number of members we have, so please get others to join. Also, there have been quite a few new faculty members hired recently at Colleges and Universities in the Southeast. Please tell any people new to our region about SESAPS and get them to join. We are especially anxious to keep up our tradition of using our meetings as a place where faculty at two and four Colleges and Universities are able to exchange new teaching techniques as well as their research results.

This past Fall's SESAPS meeting in Miami, showed how much new and exciting physics is going on in the South. Not only were new experimental nuclear physics results from Jefferson Lab presented, but the potential for materials science research with the Free Electron Laser, also located at Jefferson Lab, was highlighted. Extensive sessions on Astronomy, Atomic and Laser Physics, Biophysics, Materials Science, High Energy and Nuclear Physics, and the Teaching of Physics, show the diversity of research taking place in our region. The Society of Physics Students research session was extremely well attended with very high quality research results presented.

The students and faculty of the Astronomy and Physics Department at Florida International University did a wonderful job of organizing and coordinating the more than 20 sessions that took place during the meeting. I want to also thank Worth Seagondollar for his wonderful after banquet talk on the early days at Los Alamos.

I hope to see you at this Fall's meeting in Chapel Hill.

Kirby Kemper

THE FOLLOWING INFORMATION WAS GENERATED BY APS TO ASSIST YOU WITH THE PREPARATION OF ELECTRONICALLY SUBMITTED ABSTRACTS

Abstract Submission

The deadline for the submission of all abstracts is Friday, August 29, 1997, 5:00 pm EST at the APS Headquarters.

The deadline is firm, so don't wait until the last minute! Send early - save yourself the stress.

Electronic Submission

Last year, the APS instituted an electronic abstract submission process, which was an enormous success, with almost 80% of all the abstracts being submitted electronically. We are hoping for an even better turnout electronically this year. There are many advantages to submitting electronically.

E-mail message confirming receipt of your abstract

E-mail notification of the scheduling of your paper

The complete abstract will appear in the electronic version of the program which will be posted on the APS Home Page, well in advance of the printed program. (Abstracts submitted in paper form will have only the title and author listed in the electronic program.)

For information on how to submit an abstract electronically, send an e-mail message to "abs-info@aps.org" and use the word "info" in the text of your message. To receive the template, send a message to "abs-request@aps.org" and put the words "request <meeting ID>" in the text of your message. The information and/or template will be returned to you by e-mail. If you have particular questions regarding the information, or need assistance, send a message to "abs-help@aps.org".

Submitting electronically is very easy. The mark-up language we use is LaTeX, but you do not need to know LaTeX in order to submit an abstract. Simple ASCII text will suffice, unless you need to put mathematical symbols or Greek characters in the text of your abstract - and most of those instructions are very simple.

Paper Submission

Abstracts received via postal mail will be accepted; however, only the title and authors of the paper will appear in the printed version of the Bulletin and on the World Wide Web version of the Bulletin.

Please follow the instructions for the preparation of paper abstracts as they appear in each issue of APS Meeting News. These abstracts should be sent to:

<Meeting ID or Meeting Name>
Meeting Abstracts
APS Meetings Department
One Physics Ellipse
College Park, MD 20740-3844

Please do NOT also send a paper abstract to APS if you are submitting your abstract electronically. All abstracts must be at the headquarters office by the deadline date. APS assumes no responsibility for mail delays. Receipt of paper abstracts will not be confirmed unless accompanied by a self-addressed, stamped envelope.

Some Electronic Do's and Don'ts

Do not simply "reply" to the address from which you received the abstract template. Send the abstract to

"abs-submit@aps.org". Make sure you have the correct meeting ID <Meeting ID>.

One abstract per message! The system is automated. Sending two or more abstracts in one message increases the likelihood that all but the first abstract will disappear into the ether.

Use only one sorting category for your abstract in the "Sort Category" field. In order to sort the papers properly, it is important that the system deal with only one request. If you wish to give additional guidance to those who are putting the program together, please do so in the "Special Instructions" field. The Sort Category" field has four curly braces. Please use them as follows:

\Sort Category {15}{L}{}{}{}. Not \Sort Category {15L}{}{}{}
and not \Sort Category{15}{L}{32}{B}. **Do not remove left over braces.**

Only submit your abstract once. You should receive an e-mail message telling you that we got your message within 24 hours. If you have not, contact "abs-help@aps.org".

Respectfully,

Kenneth A. Hardy
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**SOUTHEASTERN SECTION OF THE AMERICAN PHYSICAL SOCIETY
EXECUTIVE COMMITTEE 1999**

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APS Representative Dr. Joe Hamilton Department of Physics Vanderbilt Univ. PO Box 1807-B Nashville, TN 37235 615 322 2456 P 615 343 7263 F HAMILTJ1@CTRVAX.VANDERBILT.EDU	

APPLICATION FOR STUDENT TRAVEL SUPPORT TO THE SESAPS MEETING

NAME: _____

ADDRESS: _____

CITY: _____ STATE: _____

ZIP: _____

SCHOOL: _____

UNDERGRADUATE/CLASS: _____

GRADUATE/CLASS: _____

ABSTRACT TITLE: _____

ABSTRACT AUTHORS: _____

AMOUNT REQUESTED (\$100 MAX): _____

PURPOSE OF REQUESTED FUNDS: _____

RETURN BY 1 OCTOBER TO:
KENNETH A. HARDY, SECRETARY SESAPS
PHYSICS DEPARTMENT
FLORIDA INTERNATIONAL UNIVERSITY
UNIVERSITY PARK, MIAMI, FL 33199