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Apparatus

The mission of the Apparatus Committee is threefold: (1) to seek new and forgotten techniques for presenting physics concepts via demonstrations and experiments, (2) to inform the membership about methods of construction, maintenance, and utilization of apparatus, and (3) to conduct competitions, as authorized by the Executive Board, and to publicize contributions to physics teaching through demonstrations and apparatus.

The Apparatus Competition had another successful year in 2000. Once again, Michael Moloney did an outstanding job. There were approximately 20 submissions in the Introductory Laboratory and Low-Cost categories. Thanks to Warren Hein for posting announcements in the AAPT Executive Updates. Information about entries is again posted at <http://www.rose-hulman.edu/~moloney>. This site also includes entry rules and forms, judging rules, and links to previous competitions. Our special thanks to PASCO scientific for their continued support of the competition.

Kevin McCabe of Brown University has volunteered to work with Mike Moloney next summer. This will help provide a smooth transition of directors, as this will be Moloney's last year with the competition.

Concern about a permanent website for the AAPT Apparatus Competition was raised at the Summer Meeting in Guelph. Warren Hein agreed to provide space on the AAPT server, and a transition is expected within the coming year.

Revising the Apparatus Committee mission statement to reflect the increasing role of computers was discussed. The opinion of the 56 majority of those present was to not change the mission statement and to continue to treat computers as another instrument or apparatus as covered in the second point of the statement.

Gregory Puskar, Chair

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Astronomy Education

The past year has been largely devoted to planning for the joint meeting of AAPT and the American Astronomical Society in January 2001. After aggressive recruiting by both organizations, there were more than 40 astronomy education talks and poster presentations under the banner of AAPT and more than 60 astronomy education posters submitted under the banner of AAS. Of special interest was a joint invited oral session focusing on the impact of physics education research on the teaching of astronomy.

In addition to planning for the joint meeting, the Committee sponsored *Frontiers in Astronomy*, *Innovations in Teaching Astronomy*, and an *Astronomy Education Poster Session* at both the Winter and Summer Meetings. Two new crackerbarrel sessions were introduced with much success: (1) *Ask-an-Astronomer*, which is designed to occur after the meeting plenary astronomy speaker with the invited speaker; and (2) *Astronomy Education Research Town Meeting*, which occurs as an informal early morning breakfast meeting.

Additionally, an electronic community, astrolrner@egroups.com, has been created to allow scientists involved in conducting research on how people learn astronomy to communicate, trade ideas, and share data. To date, there are nearly 80 individuals in this electronic community. Members of the Astronomy Education Committee have also approached the Executive Board to request that the recognition of astronomy education research be placed alongside the organization's stated interest in supporting physics education research.

This past year represented an exciting time for the astronomy education community as we attempted to provide a balance of our interests in physics education research, innovations in teaching astronomy, and public outreach.

Timothy F. Slater, Chair

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Computers in Physics Education

The Computers in Physics Education Committee continues to sponsor multiple workshops and sessions at all AAPT meetings. During the four meetings in 2000 and 2001, the Committee will have sponsored or co-sponsored a total of 28 workshops and 14 paper sessions. These have brought or will bring to the attention of the participants the highest level and most recent developments in the uses of computers in physics education. All the presented workshops and sessions were well-attended and were frequently oversubscribed. Several sessions have had people standing in the aisles. A high level of interest in computer use is expected to continue.

The Committee continues to be concerned about the cost of workshops and whether the cost is a limitation on attendance, especially at the Summer Meeting. We feel that attendees without the financial support of their home institutions cannot afford to attend, and these are the people we would like to be able to include in our workshops.

While the Committee continues to embrace its primary mission, it supports the Association in looking for ways to reduce costs and ways to be useful to the membership. We also try to watch what the membership is doing with computers and incorporate any new and useful material into our programs so it can be brought to the attention of the full membership. This is done by encouraging workshops and/or sessions by the individuals involved.

William D. Ploughe, Chair

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Graduate Education in Physics

This has been a quiet year for the Committee on Graduate Education. We are charged with providing a forum for topics relevant to graduate instruction in physics and seeking ways to better prepare undergraduate students for the transition to graduate school. There have been no sessions relating to preparing undergraduates. Two sessions were organized that were relevant to the graduate student experience. At Guelph, the Committee sponsored a session on *Preparing Future Physics Faculty*. At San Diego we co-sponsored a session, along with the Committee on Professional Concerns, on *Independent Master's Degree Programs*.

Within the Committee there has been significant discussion about sponsoring an invited/contributed session dealing with "nontraditional Ph.D. dissertation topics," highlighting different and unusual research carried out by physics Ph.D. students. It is reasonable to expect such a session in the near future.

The Committee is also charged with providing effective communication between AAPT and the research-oriented scientific and engineering societies where there are overlapping interests. To this end, the Committee has sponsored a well-attended *Hot Topics* session at each of the national

meetings.

Even though some Committee meetings are somewhat sparsely populated, I want to compliment the selection of our Committee members. The Committee members have, to a person, been responsive to distant communication and eager to provide valuable input when called upon. Also, we have several "friends" whose interest and input is greatly appreciated.

James R. Crawford, Chair

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History and Philosophy of Physics

We do not claim to be "historians of science" or "philosophers of science," although at times some of our Committee members are. We do attempt to make AAPT members more aware of the historical and philosophical elements of our discipline. In a typical introductory physics course, we attempt to cram in more than 300 years of physics into a two-semester (and sometimes one-semester) course of study. With all the new and exciting developments occurring daily, there is often no time to bring out the historical and philosophical side of our subject.

Over the past year we have managed to attract a few more members and "friends of the Committee" to take part in our meetings and contribute in various ways to achieving some of our goals. One longtime member and another former member are co-editors of a new journal, *Physics in Perspective*, aimed at the general reader and physics teachers in particular. Committee members and friends have contributed articles and one regular feature, "The Physical Tourist." This should help to ensure that schools and laboratories and towns of the past are seen with a human face and not as some unreachable goal.

At the Winter Meeting in San Diego we sponsored two crackerbarrel sessions, *We Teach Who We Are*, organized by Dwight Neuenschwander, that were very successful and also a very well-attended invited/contributed session about symmetry and other matters that promoted a great deal of discussion during and long after the session closed. Members have taken up the Committee's challenge to encourage papers of historical and philosophical interest at AAPT section meetings. We would like to see more of this activity.

At least one AAPT member saved apparatus of historical interest from being scrapped at his institution as a result of our plea that we be contacted about old equipment and papers of historical interest that somehow have resurfaced. Our Association publishes two fine journals with many articles of historical interest that on several occasions have been collected in reprint volumes. We encourage all physics teachers to make these part of their libraries.

If our members are not kept aware of the fragility of data encoded on tape, disk, CDs, and so on,

especially if encoded by programs or machines that are no longer available, we fear that much history will be lost. What, for example, can be done about an article written in WordStar on an 8" diskette in a Digital Group Z80 computer when the computer breaks down?

John L. Hubisz for Anthony P. French, Chair

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Instructional Media

The Committee continues to focus on the mission of locating the emerging and cutting-edge technologies that have implications for physics instruction. We continue to focus on the media aspects of instruction and the pedagogical aspects involved whether through computers or other modes of presentation. Instructional media involves many different forms of media, from photography to computer simulations, and how instructors use and develop the media for the classroom. We join the Apparatus and Computers in Physics Education Committees in asserting that despite the blurred boundaries brought about by the Web, instructional media deserves unique attention and focus.

The Committee makes a point of seeking out speakers who can demonstrate to the membership the pedagogical uses of the emerging technologies for the physics classroom. For 2000 some of these technologies were identified to include: BluetoothTM, wireless networking (Lucent OrinocoTM, Apple AirPort, etc.), databases and Web, PDAs, MP3, DVD, VR panoramas, digital camcorders, and Flash animations. We continue to monitor the status and archiving of film loops, slides, 16mm, video, laser disc, audiotape, Java applets, Shockwave modules, QuickTime video, and streaming video. A curriculum of workshops and tutorials continues to be offered at Association meetings by the Committee in co-sponsorship with the Committees on Computers in Physics Education and Physics in High Schools. This curriculum has the goal of assisting instructors to develop Web-based instruction for physics. The curriculum includes: beginning website construction and use of visualization; Just-in-Time Teaching (JiTT) for quick feedback between students and instructors; problem solving using interactive animations on the Web; dynamic HTML, and the use of CGI and Perl for interactivity. We have continued an open-lab or constructivist model with the JiTT and problem-solving workshops, allowing participants to float between modules of each workshop as indicated by individual need. The results continue to be positive. For the future we plan to work with the AAPT Executive Office to offer Continuing Education Units for participation in our workshops. The Committee has also sponsored workshops and sessions on assessment of the effectiveness of the Web, visualizations and animations, amusement park physics using calculator-based laboratory, video contest, photo contest, instructional media in upper-division courses, cutting-edge Web technology, scientific visualization in upper-division courses, innovative pedagogy with instructional media (featuring international invited speakers), and labs over the Internet. New themes for the year ahead are emerging video technologies and teaching innovations using Java applets. We will continue to

sponsor many of these sessions as interest is demonstrated by the membership. We encourage sessions that involve the use of instructional media in all levels from pre-high school to upper-level courses in university physics.

The Committee continues to use e-mail as a major form of communication, and this has opened up our work to more "friends of the Committee." This year we have also experimented with conducting business through the use of a [webpage](#) with minutes that grow through discussion. We have been able to attract new faculty who have become members for the next few years. Our short-range and long-range goals are reflected in our activities. Our work has been enhanced by the willingness of our members and friends (encompassing small and large colleges and high schools) to network with others in a personal way.

Lisa Leonor Grable, Chair

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International Physics Education

The mission of the Committee on International Education is to "facilitate ... the interchange and dissemination of information about physics education on an international scale." In satisfying this mission, the Committee continues to provide the physics community with a listing of upcoming international conferences on physics education in the *Announcer* and to maintain and update a list of international contacts. The Committee also arranges, at our biannual AAPT meetings, an opportunity for the membership to hold sessions that reflect the international nature of physics education.

As an example, during the Winter Meeting in Kissimmee, the Committee hosted a number of Danish teachers. As a result of that exchange and the Winter Meeting in San Diego, with its strong astronomy connection, a group of Danish teachers suggested that we sponsor a session related to the teaching of astronomy courses in the middle and upper schools of Denmark. We agreed. Also at the Summer Meeting the Committee sponsored a group of Chinese teachers to come and present a group of rather unusual demonstrations. To further international exchange, it is important that AAPT members have an opportunity to attend international meetings. However, this usually presents a heavy burden on individuals due to the cost of travel (to Brazil or China, for instance). Some of these costs are sometimes picked up by the member's institution, but usually only when a presentation is made or there is some recognition that the person will report in a formal manner after the meeting. Consequently, the Committee passed a resolution that has been forwarded to the AAPT Executive Board to designate a person as official delegate. The Committee is also pursuing possibilities for joint funding for international travel for AAPT members.

The Committee is also interested in attracting foreign nationals who are residing in this country and interested in physics education for the purpose of informing them of the existence of both our

Committee and AAPT.

Edward J. Finn, Chair

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Laboratories

The Committee on Laboratories has selectively sponsored sessions and workshops at AAPT meetings, but members of the Committee do not see sponsoring sessions as their primary activity. A major goal of the Committee is to act as a coordinator of a forum for discussions of pedagogical and other issues in physics education in the laboratory. Along these lines, the Committee has explored ways to achieve our stated goals within the desires of the membership we serve. This means that we have become more involved recently with hosting sessions and workshops that have an impact on the way laboratories are done and on attitudes toward teaching laboratories.

Some discussion in recent years has explored the possibility of another LabFocus conference to be held as either a companion conference at an AAPT Summer Meeting, or as a stand-alone conference. Feedback from AAPT conference attendees this last summer sheds some doubt on the convenience of this format. Opinions most vocally expressed were that adding days to an AAPT meeting would reduce the number of attendees, and that a mechanism for delivering such content exists in the workshops held as a part of AAPT meetings. More complete analysis remains to be done concerning the venue of such a meeting or workshops and the topics to be presented. Perhaps this can be done as a Web-based survey between now and the next Summer Meeting.

The safety manual mentioned in previous reports has been submitted to the AAPT Publications Committee. We would like to thank the Committee members and friends for their effort and support during 2000.

Roger Key, Chair

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Minorities in Physics

Outside of sponsoring sessions and workshops, the Committee has been working to establish annual or semi-annual activities to fulfill the Committee's mission. One such activity is the SEES (Student Experiences in Engineering and Science) program, held during the Winter Meetings. Representatives from various groups spend one morning with local pre-high school students who are brought to the meeting site. The students are engaged in science activities from each of the groups. Members of the Committee on Minorities in Physics, along with members of the

Committee on Women in Physics, have well represented AAPT to the local community.

The Chair of the Committee has been involved in establishing "First-Timer" activities for the national meetings. Working with the Committee on Women in Physics, the Committee hopes to officially sponsor "First-Timer" activities for all future national meetings. This involvement should help with the recruitment and retention of Committee members.

Other activities to showcase the influences of minorities in physics to AAPT members and the physics and astronomy communities are being explored and will be highlighted in future reports.

Patricia E. "Trish" Allen, Chair

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Physics in High Schools

There are many challenges facing the high school physics teacher. The number of certified teachers is diminishing, instructional time is diminishing due to block scheduling, and state and federal agencies are imposing standards on the teaching of science. All of these circumstances pose challenges to high school physics teaching. To meet these challenges the High School Committee has continued its work revising the three AAPT pamphlets: Guidelines for High School Physics Teaching, Course Content in High School Physics, and Role and Education of High School Physics Teachers. The Guidelines pamphlet has been completed and work continues on the other two.

Recently, the number of sessions and workshops aimed at physics education reform and the problems and challenges associated with the high school physics class has decreased. The High School Committee turned its efforts toward increasing the number of sessions and workshops concerning issues specific to high schools. To that end, we have significantly increased the participation of our constituents in the 2001 Winter and Summer Meetings.

We have decided to try to redirect the New High School Physics Teacher Award to the AAPT sections. We are hoping to coordinate an effort to encourage the sections to recognize outstanding new physics teachers in an effort to increase AAPT participation among new physics teachers.

Finally, we have maintained and plan to continue our involvement in recognizing high school educators through the Pre-College Excellence in Physics Teaching Award and the Distinguished Service Citations.

Deborah Rice, Chair

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Physics in Pre-High School Education

The Pre-High School Committee is concerned with supporting and promoting physics in K-8 instruction. At the Winter Meeting in Kissimmee, the Committee sponsored workshops on *Powerful Ideas in Physical Science: Introduction to New Force and Motion Units and Training Workshops for In-Service Teachers of Middle School Science*. The Committee co-sponsored an invited session on *Is This Really Reform?* Finally, the Committee sponsored a crackerbarrel on *Powerful Ideas in Physical Science: Networking and Sharing*.

For the Summer Meeting in Guelph, the Committee co-sponsored a workshop on *Fun Experiments and Demos in Light, Color, and Spectroscopy*, which unfortunately had to be cancelled when the workshop leader was unable to attend the meeting. The Committee sponsored an invited/contributed session on Pre-High School Education and a crackerbarrel on *Powerful Ideas in Physical Science: Networking and Sharing*.

John Hubisz, a longtime supporter and former member of the Committee, recently completed a review of the physical science in middle school science textbooks, which is available [online](#).

The Committee continues to have difficulty drawing a sufficient number of AAPT members to its meetings to develop a strong core and determine a definite direction. The difficulty was aggravated this year by the serious illness of Tom Hudson, one of the long-term members and supporters of the Committee. We wish Hudson the best for a strong recovery. Any suggestions for ways to increase involvement of AAPT members in the Committee would be welcome.

Dave Maloney, Chair

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Physics in Two-Year Colleges

Now that NSF grant funding for the TYC21 project has ended, AAPT and the two-year college physics community need to work together to maintain the gains and build on the successes of TYC21. The Committee on Physics in Two-Year Colleges will endeavor to coordinate and provide leadership for these efforts. The three White Papers written by the TYC21 Steering Committee deserve careful consideration by all concerned. The recommendations and action plans in these White Papers address critical issues that need to be dealt with if the positive impetus of TYC21 is to be sustained.

To facilitate communication, the Committee recommends that the Two-Year College

Representative to the AAPT Executive Board be declared an *Ex Officio* member of the Committee.

We appreciate the efforts of Warren Hein, Associate Executive Officer, working with Bill Waggoner of this Committee to consolidate and maintain the TYC21 e-mail lists of two-year college physics faculty and other interested people. Waggoner is also maintaining the Committee [webpage](#).

The TYC21 newsletter, *Connections*, is viewed as a valuable resource, and means to revive it are being looked into by members of this Committee. Assistance, financial or otherwise, from AAPT to continue this newsletter, at least on an annual basis, would be greatly appreciated. We are also considering an electronic alternative to the printed newsletter. In either case, an editor would be needed, and the TYC physics community would have to provide content.

Participation in AAPT national meetings continues at an increased level. At the Winter Meeting in Kissimmee, the Committee adopted five themes for emphasis in future program planning. These are:

- Links to Future Teachers
- Directions in Interdisciplinary Studies
- The Underprepared Student
- Physics for the General Populace
- Assessment

At the Kissimmee Meeting, the Committee sponsored or co-sponsored one workshop, three paper sessions, and a crackerbarrel. The Summer Meeting in Guelph included four workshops, five paper sessions, and two crackerbarrels sponsored or co-sponsored by the Committee. The schedule for the Winter Meeting shows one co-sponsored workshop and three sponsored sessions. There have also been several TYC contributions to the poster sessions at these meetings.

We believe that the TYC Resource Room provided at the Guelph Meeting was a valuable, if initially under-utilized, facility. We hope that this will be available at future national meetings and that the TYC community will work to make the Resource Room attractive and useful.

Member Bill Hogan is currently coordinating the revision and updating of the AAPT booklet, *Guidelines for Physics Programs in Two-Year Colleges*. This work-in-progress was reviewed at the Winter Meeting in San Diego.

William R. Warren, Chair

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Professional Concerns

The Committee on Professional Concerns focuses primarily on topics dealing with conditions and extra-classroom activities that affect physics teachers and the educational process.

At the Summer Meeting we sponsored a lively invited-speaker session on balancing career and family. The discussion included the nuances of dual-career households, a married couple sharing one academic position, and the challenges of raising a family while building a professional career.

We continued our tradition of having a Summer Meeting crackerbarrel session on the professional concerns of instructional resource specialists. The concerns of people who work in demonstration areas, educational laboratories, resource centers, and the like were explored. These sessions have proven to be excellent forums for sharing concerns, solving common problems, and building people networks.

Also at the Summer Meeting we sponsored invited and crackerbarrel sessions on new faculty experiences and concerns dealing with the roles and responsibilities of new teachers and ways to enhance their effectiveness in the classroom. We also sponsored two contributed sessions on how physics topics can support the job market.

At the Winter Meeting we sponsored a session on independent master's degree programs, which covered two distinct types. Stand-alone programs (in the absence of Ph.D. programs) present unique educational opportunities for working students who can either choose to take a comprehensive exam or complete a thesis. Some who choose the latter do master's thesis work at their employer's site. Professional master's degree programs are hands-on, multidisciplinary efforts in partnership with potential employers. Both program types provide practical alternatives for students who either do not seek doctoral work or wish to delay it.

Our known future activities will concentrate in four areas. First, we shall explore the options, opportunities, and adventures of retirement from physics academic positions. We shall hear from people who have chosen entirely new careers that use their physics expertise in various ways. Second, we shall address (in collaboration with the Committee on Physics in Undergraduate Education) the issue of accreditation of undergraduate physics degree programs, hoping to shed light on the pros and cons of accreditation. Third, we ask whether a physics bachelor's degree prepares students for the workplace. We hope to deal with perceptions among employers and success (or failure) stories by people for whom the bachelor's degree is a terminal one. Finally we shall continue our Summer Meeting crackerbarrel sessions on the professional concerns of technical staff working in physics education support positions.

Members who have professional concerns not represented above are invited to contact one of our Committee members or attend one of our Committee meetings during an AAPT Summer or Winter Meeting.

Harvey S. Leff, Chair

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Research in Physics Education

The Committee on Research in Physics Education continues to try to understand and improve the teaching and learning of physics. As has been the case in previous years, AAPT workshops, sessions, and crackerbarrels sponsored by this Committee have been well-attended and well-received. In addition, our Committee has helped facilitate discussions that have led to numerous other activities related to physics education research.

With great assistance from AAPT, we have continued to organize our annual Physics Education Research Conference as a tandem conference to the AAPT Summer Meeting. In Guelph, the theme was physics education research and teacher education/pre-college physics. There were roughly 200 attendees. The conference included presentations by college researchers and high school teachers, interactive poster sessions, and an extended discussion session with Duncan McBride of the National Science Foundation. Details of the conference are available at <http://www.sci.ccny.cuny.edu/~rstein/perc2000.htm>. The next conference will be held at Rochester during the 2001 Summer Meeting. For details, contact Karen Cummings at Karen@rpi.edu.

There have been many other activities within the physics education research community. Practitioners have continued to contribute to the American Physical Society *Forum on Education Newsletter* as a means of increasing interactions between the two organizations. Also, the second issue of *Physics Education Research: A Supplement to the American Journal of Physics* was published, and plans continue regarding the future of the supplement. The Editor of the supplement is Joe Redish. Details are available at <http://www.physics.umd.edu/perg/pers>.

Finally, the first Gordon Research Conference on physics education research was held June 11-16, 2000, on statistical and thermal physics. This series of conferences will focus on how research in physics and research in physics education can be used to improve the teaching of physics. The next conference will be held June 9-14, 2002, on the topic of quantum mechanics. For more information see <http://www.grc.uri.edu>.

As always, the Committee would like to thank the AAPT community for its strong support. We look forward to another exciting and active year.

Richard N. Steinberg, Chair

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Science Education for the Public

The Committee on Science Education for the Public is concerned with helping educators convey good science to the public. This is accomplished through teacher workshops and talks at AAPT meetings. A number of the ongoing projects and demonstrations are briefly described.

At the Winter Meeting in Kissimmee a workshop and group of speakers on physics and magic was a large success. Audience members were shown how to mix the ideas of magic and physics to show science with the thrill of magic and its tricks. This was done again at the Winter Meeting in San Diego.

A workshop on the *Physics of Toys* was offered again this year. It will be offered this coming summer in Rochester as this workshop draws good attendance and remains popular with the members. This workshop actually covers the physics and its practical applications of common toys that are easy to buy in any store.

In addition, the *Physics and Chemistry on the Road* workshop was held this summer in Canada. Over 20 participants attended the workshop, and a presentation was given on how to take science to the schools and how to encourage the public to get more involved in science education. The van from Purdue University and the University of Nebraska at Omaha came to the conference. The Purdue Physics on the Road Handout can be found online at <http://www.physics.purdue.edu/OUTREACH/potr2.html>. Information about the University of Nebraska at Omaha's program is online at <http://www.physics.unomaha.edu>. At the Kissimmee Meeting the participants of this workshop did a public demonstration at the Orlando Science Center. An evening demonstration for the public is also being planned for Rochester, N.Y.

The Committee tries to sponsor a public show at each meeting. The show is free and open to the public at a public place. Since the vans come to the meeting, it is our hope and desire to use them in public forums in the cities where we meet. Other topics that interest the public and teachers are radiation and its effects, space exploration, amusement park physics, and the arts. With the continuing support of the members of this Committee and all of its friends we hope to continue to offer new and exciting topics in the future.

Dave Kriegler, Chair

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Physics in Undergraduate Education

Challenges to physics undergraduate education also present opportunities. Let us consider some examples:

(1) The challenge: The declining number of physics majors shows no sign of reversal. The opportunity: Instead of focusing only on reproducing ourselves with the next generation of "traditional physicists," we can also learn something from the two-thirds of our alumni who take their physics degrees into diverse careers, from actuarial science to radiology.¹ These alumni know how flexible and powerful are the skills and habits of mind that come with a physics education! We have much to learn from our "hidden physicists."²

(2) The challenge: Physics strongly influences life, from our way of thinking about humanity's place in the universe, to being an engine of the economy. Should physics be among the "liberal arts" offerings in higher education?

The opportunity: Imagine culturally relevant physics courses accessible to upper-division non-physics majors, without physics prerequisites, such as topics in cosmology, philosophy of science, nuclear weapons, or space travel. Such topics can be presented to non-physics majors in a way that respects the discipline, gains friends for physics, and helps revitalize our departments.

(3) The challenge: For several years, numerous voices have urged the founding of a physics department accreditation program. But one size does not fit all. As in evolution, the diversity of sizes and missions among physics departments assures the vitality of the species. Respect for that diversity must not be overridden.

The opportunity: A frank and open discussion of this issue could be healthy. If the criteria depend on the number of faculty and publications, or budgets and grants, then a schism in the community will result. But if commitment to a shared vision and set of values are the qualities being accredited, then the movement could help build community between departments of all missions.

(4) The challenge: Course work is essential, but can engage only a limited slice in the wide spectrum of student interests and aptitudes. The opportunity: Promote the student's extracurricular professional development through undergraduate research, outreach to the public, and placing students in leadership roles wherever possible. Our liaisons with the Society of Physics Students provide an efficient venue for realizing these goals.

1. The "two-thirds" has been documented by AIP statistics, e.g., *AIP Report*, July 1998 (AIP Pub. No. R-282.20), and that number has remained quite stable over the years.

2. See any recent issue of *Radiations*, the magazine of the Sigma Pi Sigma physics honor society, for stories of our "hidden physicist" alumni.

These topics form a sample of the present interests of the Committee. I wish to thank the Committee's members and friends for their ideas and hard work throughout the past year.

Dwight E. Neuenschwander, Chair

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Women in Physics

For the Committee on Women in Physics the year 2000 saw the results of a concentrated effort toward sponsoring more sessions and workshops. The Committee was pleased to have three sessions, a workshop, and a plenary speaker for the Summer Meeting in Guelph. Now that the actual number of sessions sponsored by the Committee has increased, the focus can be on the theme of recruiting and retaining women in physics and on publicizing the accomplishments of women in physics.

Of particular note are the plenary session at Guelph and the session on *Space Physics*. The plenary speaker, Elaine Seymour, was extremely well-received by the membership, and her talk sparked discussion in many forums and on many issues. As Committee Chair I received enormous feedback that the community needed to hear more about similar research. The *Space Physics* session featured invited female scientists who have done work in space physics on a variety of levels. The Committee plans to continue to invite female speakers who not only represent contemporary science, but who are role models for graduate students and junior AAPT members. We plan to focus on research done in the local area where meetings are held in order to encourage and facilitate participation.

Patricia Allen organized mentoring activities for personnel attending AAPT meetings for the first time. The Committee on Women in Physics plans to continue with mentoring activities.

In 2000, as in previous years, Betty Preece organized SEES (Students Experiencing Engineering and Sciences) activities for the Winter Meeting. Students from the community in which the meeting is held spend a morning doing hands-on activities and learning about science and engineering.

The Committee is updating the Student Confidence Workshop and requests the assistance of interested Committees. We are also seeking an active member of the American Physical Society to be a liaison to the Committee on the Status of Women in Physics (CSWP) and to attend and represent AAPT at the CSWP annual meetings.

Heidi V. Mauk, Chair

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