

# PHYSICS and SOCIETY

## The NEWSLETTER of the FORUM on PHYSICS and SOCIETY

Published by the American Physical Society, 335 East 45 Street, New York, New York 10017

VOLUME 8, NUMBER 3

SEPTEMBER 1979

### APS ELECTION ISSUE: PAGES 1 TO 7

#### RESPONSES OF APS CANDIDATES TO FORUM QUESTIONNAIRE

The Forum on Physics and Society has instituted a new service for its members. As has been done for many years by the League of Women Voters, the Forum has asked candidates for APS Vice-President-Elect and for Councillor at Large to respond to a set of questions. The questions, constructed by the Forum's Voting Questionnaire Project (Earl Callen and Kristl Hathaway) and approved by the Forum's Executive Committee, are:

1. In the past the APS Forum on Physics and Society has, among other interests, been concerned with the energy shortage, resource utilization, environment, women in physics, human rights, the professional welfare of physicists, arms control, biological effects of radiation. Which of these, or other issues, do you think the Forum should stress?
2. Suppose there is an APS budget surplus in 1979, as has happened in the past. What do you feel would be the best use for such a surplus?
3. The APS has been increasingly active in supporting the human rights of scientists. The Panel of Public Affairs has considered suggestions that the Society; 1. send free journals to harassed scientists; 2. sponsor the Moscow Seminar; 3. sponsor official delegations to investigate, on site allegations of mistreatment. What do you feel is appropriate action for the Society? What suggestions would you offer?
4. There has been considerable controversy in the APS Council about APS support for professional concerns activity. The Professional Concerns Committee has now been replaced by an Opportunities in Physics Committee, but with many of the same responsibilities. In the past, some suggested topic for consideration have been: 1. adoption of guidelines for professional employment; 2. accreditation of physics degree programs; 3. certification of physicists; and 4. development of grievance procedures. Ignoring any problems with the IRS tax-exempt status of the APS, do you consider these to be appropriate activities for the APS? What topics would you suggest?

(The responses are on page 2-7)

### **\*\* SPECIAL REPORT \*\***

#### **APS ACTIVITIES IN HUMAN RIGHTS**

Written by John Parmentola (Mass. Inst. of Tech.) for the APS Committee on International Freedom of Scientists (CIFS)

This report summarizes APS human rights activities to date including a brief description of some future activities, and reports on major events in the human rights area.

(continued on Page 8)

Maurice Goldhaber: Candidate for Vice-President-Elect  
(Brookhaven National Laboratory)

1. The issues the Forum has chosen seem to me to be relevant and important. I think a session on biological effects of radiation would be timely now, especially since the recent issuance of the last BEIR report (biological effects of ionizing radiation). Such a session should include talks by biological and medical experts.
2. I think one way of using any APS budget surplus would be for popularization of physics through sponsored lectures, exhibits, panels of experts on topical issues, or movies.
3. I support the sending of free journals to harassed scientists. The APS may also be able to help in other ways. I favor such help, but the Society must be sure to deliver what it promises.
4. I favor adoption of guidelines for professional employment. I think to some extent this will take care of points 2, 3. and 4.

*PHYSICS AND SOCIETY*

*Editor*

*MARTIN L. PERL*

*Production Editor*

*IRMGILD SCHACK*

*PHYSICS AND SOCIETY, the Newsletter of the Forum on Physics and Society of the American Physical Society is published for, and distributed free to, the members of the Forum. It presents news of the Forum and of The American Physical Society; and provides a medium for Forum members to exchange ideas. PHYSICS AND SOCIETY also presents articles and letters on the scientific and economic health of the physics community; on the relations of physics*

*and the physics community to government and to society, and the social responsibilities of science. They should be sent to the Editor: Martin L. Perl, SLAC, Stanford, California 94301*

*PHYSICS AND SOCIETY is also distributed free to Physics Libraries upon request. Such requests and requests for other information should be sent to I. Schack, SLAC, Stanford, California 94301.*

Walter Kohn: Candidate for Vice-President-Elect  
(University of California, San Diego)

1. I think that the ability of the Forum to focus on different problems at different times has been very useful. Constant monitoring of all the areas mentioned is needed. At the present time I consider the energy shortage and human rights problems to be especially acute. The long term problem of the rapid exhaustion of many non-renewable resources is, in my opinion, receiving quite insufficient national attention, and the Forum should take a leading role in this area. An important activity not mentioned in your list, which would seem to fall within the Forum's purview is general communication between the physics community and society at large.
2. Since I have not been on the APS council for a number of years, I cannot answer this question at this time.
3. Like the Forum, I personally have taken a very active interest in the area of human rights of scientists. I have been, for a number of years, a member of the board of the Committee of Concerned Scientists. I have directly intervened in the USSR on behalf of Mark Azbel and I have been active in discussions dealing with the question of continuation, of total or partial suspension, of the US-USSR Joint Program in Condensed Matter Theory. My own detailed recommendation for the meeting currently under way, was that instead of the originally planned expansion, its scope be contracted by a factor of 2 with an appropriate official explanation referring to the great importance of international scientific cooperation as a principle, as well as the unabated distress over the punishment of colleagues like Orloff and others, making full scale cooperation impossible. I also stated that, although I personally would be nearby (Sweden) at the time of the workshop, I was not prepared under the present circumstances to participate in it. Besides the widely known human rights problems of scientists in the USSR, there are extremely serious, but generally less well-known, problems in Latin America. About two years ago, I had the occasion to intervene on behalf of a Chilean scientist, whose situation was brought to my attention by a graduate student. He was eventually allowed to emigrate to the US.

In response to your specific questions: 1) Yes, I strongly favor sending free journals to harassed scientists as part of our international obligation to the advancement of science 2) No, I do not consider official sponsoring of the Moscow Seminar as appropriate for the American Physical Society. However, as an individual, I consider it extremely important that American and other foreign scientists lend their support to the seminar. Also, if the opportunity presented itself, I would attend this seminar personally. 3) No, I do not consider as appropriate official investigations by the APS of alleged mistreatment in foreign countries. I would favor, under appropriate circumstances, a visit of officers of the Society to countries where human rights problems exist. The object of such a visit would be to explain, at the highest level, the profound commitment of the APS to the principle of the international cooperation and the impediments to such a cooperation produced by arbitrary and harsh political actions depriving scientists of their legitimate rights to pursue their profession freely. Such visits would naturally include participation in legitimate scientific activities which would be of interest to the visiting group.

Philip W. Anderson: Candidate for Councillor at Large  
(Bell Telephone Laboratory)

My statement for the APS covered a lot of this, but here goes:

- (1) Many of these issues continue to be important - energy most of all in that we continue to be the professional community best qualified to advise and in some cases to work on this problem. In my APS spiel I emphasized also public education and communication as serious problems.
- (2) Publications
- (3) We all do everything we think can be of any use. Individual action seems to work best in Russia, but we must keep in mind that our colleagues in many different countries are being persecuted and not get imprinted on a single "enemy". (Czechoslovakia and Brazil are very bad at the moment.)
- (4) I don't like euphemisms: is "professional concerns" one for employment? We must keep as far as possible from the attitude that a physics PhD should guarantee employment in one's own specialty, and instead advertise the undoubted fact that industry and government find it a useful background for an enormous variety of jobs. An information program in this area might be useful.

---

Walter Kohn: Candidate for Vice-President-Elect (continued from Page 3)

4. My reply to your question relating to the Opportunities in Physics Committee are as follows: 1) Yes, I think adoption of guidelines for use in professional employment would be useful. Over the years, I have seen quite a number of cases of physicists in unsuitable employment situations. Such guidelines should reflect the exceptional variety of modes in which physicists work. I personally favor a continuing expansion of the professional horizons of physicists. This expansion should not be curtailed by narrow and inflexible guidelines 2) No, I do not favor accreditation of physics degree programs. Such accreditation has long been a common practice for professional programs such as engineering. Although physics has substantial professional aspects, it is nevertheless essentially a science and I would fear that accreditation would tend to limit desirable educational innovation and variety 3) I am not aware of good reasons for certification of physicists other than the existing academic degrees 4) I frankly do not see what useful role the Forum could play in the development of grievance procedures.

Richard D. Deslattes: Candidate for Councillor at Large  
(National Bureau of Standards)

1. The range of possibilities appears rich indeed and one can hardly quarrel with the list of past subjects. Among other possible additional topics, I feel that, while several studies have already addressed problems of risk assessment, there does not seem to have been as adequate attention to use of results of such an assessment; this seems a lack whose remedy would be timely. On another subject, it is clear that many attempts have been made to trace production of recognized benefits or amelioration of irritants to their possible origins in the scientific enterprise. The results have not been uniformly satisfactory. Perhaps a Forum discussion on methodologies and issues for such studies would be in order.

2. Both the Society as a whole and some of its Divisions have faced the problem of selecting relatively optimum uses for budget surpluses. No simple answer can serve all needs and the sums involved are not overly large. My choice would be to propose that, for each major APS meeting (including Divisional meetings, major Symposia and Topical Conferences), an invitation be tendered to a scientifically appropriate person whose travel to this country is restricted or inhibited. It has been suggested to me that an invitation to a major meeting coupled with an offer of even partial support is often sufficient to secure permission to travel. Often it is not, but the "lost" bet is available to place again. Although one's thoughts in these areas turn frequently to scientists living in Eastern Europe and the Soviet Union, there are enough other cases of unreasonable citizen restraint that our modest surpluses could be well used for years to come even in the absence of these cases. In the (likely) event of failure then, according to the wishes of the invitee, his/her name could be listed in the Forum newsletter with a brief description of nature of the invitation and the circumstances of its failure. In cases where it is appropriate to do so, the failures could be more widely publicized.

3. This is an areas which I find most difficult to treat in the absence of specific guidance from the people it is intended to help. It is also the case that some of the people who are not harassed and appear relatively free to travel are themselves good scientists and constitute a useful channel of communication. I feel that there are circumstances in which excessive intervention might not be the best strategy overall, and would like to see an attempt made to address each case individually with a view toward guessing the total effect of an action before carrying it forward. The answer given to question #2 is not irrelevant to this consideration.

4. I presume that the intent of possible action by the "Opportunities in Physics Committee" would be to bring the results of deliberations in one or more of these Professional Concerns to the attention of the membership through the Council. Possibly the result would be in the form of a resolution to be voted on by the membership to establish a Committee to devise an enabling document for an organizational entity to accomplish

(Continued on Page 6)

Walter Massey: Candidate for Councillor at Large  
(Argonne National Laboratory)

1. I believe the Forum should continue to pay attention to and to be involved with all of these issues. It is very difficult to rank order these concerns, but given the present problems of our nation, I would certainly put emphasis on the energy shortage, the environment, and women and minorities in physics. (I must say I was disappointed and chagrined that the Forum does not consider the issue of minorities in Physics to be an item worth consideration).
2. I am not sufficient familiar with the financial state or obligations of the Society to give an informed answer to this question.
3. I think items 1) and 2) are ~~appropriate responses for the American~~ Physical Society. I am less enthusiastic about item 3. I think the Society could better use its resources and influence by urging more appropriate bodies (e.g. the State Department or the National Academy) to carry out such investigations.
4. I have been a member of the American Institute of Physics committee on Professional Concerns for three years. To me it has been a very moribund committee. The former American Physical Society committee was not very much different as far as I could tell. I do not believe the American Physical Society should be in the business of accreditation or certification. I would hate to see the American Physical Society become a pale version of the American Medical Association. On the other hand, the welfare of physics and physicists has to be a major concern of the American Physical Society. Therefore, guidelines for employment and the development of model grievance procedures seem to me to be appropriate activities.

---

Richard Deslattes: Candidate for Councillor at Large (continued from page 5)

one of the acts labelled 1-4. If this is what is meant, then it is surely unobjectionable since the deliberative and review processes would likely filter many of the possibly unfortunate paths before they would even need a membership vote. The results of a vote by the general membership on any such proposition would presumably represent further reflection. If the result were a call to some set of actions, then I would regard these as mandated to the Society's leadership.

James D. Callen: Candidate for Councillor at Large  
(University of Wisconsin)

1. Issues

The APS Forum on Physics and Society should stress primarily those issues for which the members have a true professional expertise and/or vested interest in order to ensure the veracity and credibility of any conclusions reached. Of the particular issues listed the ones that seem appropriate are: women in physics; human rights of physicists (and scientists); the professional welfare of physicists; and to a certain extent, arms control.

2. Surplus

The best use of any surplus would probably be spent trying to advance the professional welfare of physicists. Specifically, it could be spent on a well-considered public information effort to revive the prestige of physics, on looking into benefit plans for its members (e.g., catastrophic illness insurance, pensions and other benefits portable between industries, national laboratories, and universities), etc.

3. Human Rights

- (a) Free journals? -- Yes, if there is some real chance the scientists would actually receive them.
- (b) Sponsor Moscow Seminar? -- Not directly, but should informally endorse by continuing and perhaps intensify reporting on these seminars through Physics Today and other appropriate publications of the APS.
- (c) Sponsor fact-finding delegations? -- Probably not directly because of the potentialities for misinterpretation, obfuscation, frustration, and intimidation of such a delegation. However, it would be appropriate to ask the State Departments of the U.S. and other countries to sponsor such delegations or at least request written replies to specific questions concerning allegations of mistreatment.
- (d) General suggestions? -- The most important thing is to apply gentle but persistent pressure over a long period of time.

4. Professional Concerns

The four topics listed are all valid topics for discussion by the Opportunities in Physics Committee. Other appropriate topics would be: ways to increase the prestige of physics and mechanisms for increasing the job market for physicists.

APS ACTIVITIES IN HUMAN RIGHTS (continued from Page 1)

The APS activities are coordinated through CIFS, which is a committee of the APS Panel on Public Affairs (POPA), which in turn functions as an advisory committee to the APS Council. The present membership of POPA is listed in the Bulletin of the APS, May/June 1979, p. 746. The present members of CIFS are: Bernard R. Cooper, Earl R. Callen, Peter Eisenberger, Eric Fawcett, Edward Gerjuoy (Chairman), Kurt Gottfried, Luisa F. Hansen, Edward A. Stern, John Parmentola, John A. Wheeler. CIFS feels undermanned for the human rights activities it is attempting, and could use offers of assistance, especially in the effort to form "small committees" (see below).

One of the significant events of this past year, the Third International Conference on Collective Phenomena - Moscow, was a tremendous success despite Soviet efforts to disrupt the conference. The APS did send a letter of support to the conference organizers. Eight Americans were to attend, however, five were denied visas. Three American, seven French, one British, and about thirty Russian scientists participated in the conference. There were a total of twenty-nine talks in three days which included a paper on "Wave Logic" written by Yuri Orlov before his trial. There were talks on such subjects as stable numerical procedures for solving problems in hydrodynamics, statistical problems in data analysis, collective phenomena in liquid crystals, polymers, plasmas and superfluids, general relativity and formal quantum field theory. The proceedings of this conference will be published by the Annals of the New York Academy of Arts and Sciences sometime in the fall. There are several written reports which include a summary of the events before and after the conference and useful information regarding the refusnik situation to date.

Interested readers should contact the individuals listed at the end of this report. One of these reports<sup>(1)</sup> includes information regarding the Leningrad refusnik group and a list of refusniks and corresponding administrators who should be contacted to facilitate their release.

Presently, there is fear that parasitism charges may be waged against Viktor Brailovsky, Yuri Golfand and others because of threats by Soviet officials. However, no legal action has been taken by the Soviet officialdom. The organization of "small committees" within the various divisions which could adopt individual cases such as the above would be an effective way of aiding in their release. An initial step toward organization of such committees would be for each division to designate a contact person, to whom CIFS could refer appropriate cases. Along these lines, Professor Beketi of MIT in the Plasma Division heads such a committee, Professor Edward Stern of the University of Washington heads one in the Condensed Matter Division, and Professor Eugen Merzbacher of the University of North Carolina is trying to organize such a committee in the Division of Electron and Atomic Physics.

The APS has adopted a statement of principles for its human rights activities which has been published in the May/June 1978 edition of the Bulletin of the Society. A copy of these principles has been sent to the Chairman of the Science Policy Committee of the Australian Institute of Physics who has expressed an interest in adopting human rights activities within his committee. In addition, the February 1979 Bulletin, p. 91, has published (with a request from Council for comments) a list of "Activities Appropriate for the American Physical Society With Respect to Human Rights".



APS ACTIVITIES IN HUMAN RIGHTS (continued from Page 8)

Throughout this past year, the APS has continued letter writing in support of physicists who have been deprived of their basic human rights and can not function as scientists under present circumstances. In this regard, it has been one year since the imprisonment of Yuri Orlov and Anatoly Shchransky, and President Louis Branscomb has responded in a letter to Academician A. P. Alexandrov, President of the Academy of Sciences of the U.S.S.R.

With regard to a related matter, a mailgram was sent by President Louis Branscomb to Congressman Matthew F. McHugh recommending that the members of the Congressional delegation to the USSR this past April meet with members of the refusnik community during their visit. A favorable reply has been received from Representative McHugh who indicated that members of the delegation did in fact meet with the refusniks and he has assured the APS that the problems of these individuals were emphasized in discussions with Soviet officials.

The APS has continued to send Physical Review Letters to Victor Brailovsky and a subscription is being sent to Yuri Orlov in prison.

In Argentina, a young graduate student, Daniel E. Bendersky, has disappeared. On December 8, 1978, past President Norman F. Ramsey wrote to the President of Argentina, General Videla, expressing concern of the fate of Mr. Bendersky. A reply was received on January 10, 1979 from the Private Secretary of the President of Argentina, which states that the whereabouts of Mr. Bendersky is unknown. There appear to be several courageous newspaper men in Argentina. The Buenos Aires Herald of April 26 carried a story about Bendersky and noted AAAS and APS involvement in the case. Since then he has been accepted as a graduate student in absentia at M.I.T. with financial aid. This information has been forwarded to the U.S. Ambassador to Argentina, Raul Castro. A letter of inquiry has also been sent to the Argentine Ambassador in the U.S., Dr. Jorge A. Aja Astil.

Recently the APS has been concerned about the case of Alfredo Antonio Giorgi, a physicist and chemist who formerly headed the plastics research laboratory at the National Institute of Industrial Technology (INTI) in Buenos Aires. On November 27, 1978 Dr. Giorgi was called to the administrative offices of INTI by the Institute's executive officers, and handed over to men claiming to be army and police officers. He has not been heard from since that date. For the first time in its history, the Argentine Supreme Court has ordered an investigation into a case of this kind.

With regard to future activities, the Forum is planning a human rights session for the January meeting in Chicago. The general plan of the session will include a talk by an eminent American scientist who has been involved in human rights activities, and three emigres, one probably from Argentina and the other two from the Soviet Union. We will keep you informed of the details.

(Continued on Page 10)

APS ACTIVITIES IN HUMAN RIGHTS (continued from page 9)

For your information, you will find, at the end of this report, an extensive list of refusniks who are waiting for permission to leave. Addresses and resumes for many of these presently unemployed scientists are available from CIFS.

Additional reports of APS human rights activities will be published in this Newsletter from time to time unless, as there is some possibility, the APS Bulletin can be used as a vehicle to carry these reports to the entire APS membership, rather than to FORUM members only.

REPORTS

- |   |     |   |
|---|-----|---|
| 1. Bernard Cooper<br>West Virginia University<br>Department of Physics<br>Morgantown, W.V. 26505    | and | John Parmentola<br>Massachusetts Institute of Technology<br>Department of Physics<br>Cambridge, Mass. 02139                                     |
| 2. Joel L. Lebowitz<br>Rutgers University<br>Department of Mathematics<br>New Brunswick, N.J. 08903 | 3.  | Guest Comment<br>Physics Today, June 1979, Pg. 9<br>James Langer<br>Carnegie-Mellon University<br>Department of Physics<br>Pittsburgh, PA 15213 |

SOVIET SCIENTISTS AWAITING PERMISSION TO EMIGRATE

<u>Name</u>	<u>City</u>	<u>Specialty</u>
Solomon Alber	Moscow	Mathematics and Physics
Jacob Alpert	Moscow	Mathematics and Physics
Piotr Balshem	Tashkent	Physics
Mark Berenfeld	Moscow	Physics
Elizaveta Bykova	Tbilisi	Physics
Eitan Finkelshtein	Vilnius	Physics
Isay Goldshtein	Tbilisi	Physics
Yuri Golfand	Moscow	Physics
Abram Kagan	Leningrad	Mathematics and Physics
Vladimir Kislik	Kiev	Physics
Israel Klein	Tashkent	Physics
Mark Kushnir	Chernovtsy	Physics
Bronislav Lainer	Moscow	Physics
Moisey Liberman	Bendery	Physics
Efim Pargamannik	Kiev	Physics
Lev Raibshteinas	Vilnius	Physics
Vladimir Raiz	Vilnius	Physics
Valentin Simanovsky	Leningrad	Physics
Vladimir Shulemovich	Novosibirsk	Heat Physicist
Naum Meiman	Moscow	Mathematics and Physics
Marks Kovner	Gorky	Mathematics and Physics

## FORUM SESSIONS AT APS MEETINGS

The Program Chairman for Forum sessions at the APS meetings is Dean Brian Schwartz. The three meetings for which programs are being planned are the annual meeting in Chicago in late January, the Solid State meeting in New York in late March and the Washington meeting in late April. If you have any suggestions for a topic for any of the meetings, please write to Dean Schwartz. You should include the title of the session, possible speaker and their affiliation, and the name of an appropriate person who will arrange the program. Please write directly to:

Dean Brian B. Schwartz  
Dean, School of Science  
Brooklyn College  
Brooklyn, New York 11210

---

**APS MEMBERS:** JOIN THE FORUM ON PHYSICS AND SOCIETY  
NO CHARGE IS MADE FOR FORUM MEMBERSHIP THIS YEAR.

To become a member of the Forum fill in this form and mail to:

E. William Colglazier, Jr.  
Center for Science and International Affairs  
John F. Kennedy School of Government  
Harvard University  
Cambridge, Massachusetts 02138

---

I wish to join the Forum on Physics and Society

Name (please print) \_\_\_\_\_

Address \_\_\_\_\_  
\_\_\_\_\_

PHYSICS AND SOCIETY  
The Newsletter of the  
Forum on Physics and Society  
of the  
American Physical Society

Volume 8, Number 3 September 1979

The American Physical Society  
335 East 45th Street  
New York, N.Y. 10017



---

ARTHUR Z ROSEN  
PHYSICS DEPARTMENT  
CAL POLY STATE UNIVERSITY  
SAN LUIS OBISPO CA 93407

\*\*\*\*\*