

THE INSTITUTE

Documentation

THE Documentation Research Project of the American Institute of Physics is currently engaged in the research phase of a program which has as its eventual aim the development of a reference retrieval system for physicists. The work is being carried out at the Institute under the direction of Hugh C. Wolfe, with Mrs. Pauline A. Atherton devoting full time to it as assistant director of the project; support for the program is provided under a grant from the National Science Foundation. Expert assistance is available from persons skilled in documentation techniques and from several physicists who are serving either as special consultants or as members of the Institute's Advisory Committee on Documentation Research.

There are numerous indications that physicists experience difficulties in attempting to locate references to pertinent research papers from the ever-growing volume of research literature. Existing indexes and reference retrieval systems, by and large, are intended to "cover" the material contained in the system, rather than being specially designed to meet the requirements of those who use the system, primarily because little research has been done to determine what these requirements may be. The AIP project is attempting to define the specific information-retrieval needs of physicists by asking research specialists what they would demand of an *ideal* reference-retrieval system. The physicists are asked to make their requests for lists of research references in terms of their current work and in accordance with certain "rules of the game". An analysis of the requests made to an ideal system is hoped to lead at least to the establishment of the parameters of a *satisfactory* system.

The resulting data are expected to indicate: (1) the degree of specificity necessary for indexes and retrieval systems designed for use by physicists; (2) the emphasis of the search requests (e.g., is information on methods and techniques more frequently desired than research results?); (3) whether there is a need for indexing differently for current awareness and for retrospective searches; (4) the periodicity of requests for current awareness searches; and (5) the extent of retrospection for searches of past literature. After these data have been analyzed, attempts will be made to design and develop a system which will more nearly meet the specific needs of physicists.

In February of this year, about 1500 research physicists were asked to cooperate in this first phase of the AIP program. They were sent a questionnaire entitled, "Data Required for the Development of a Reference Retrieval System for Physicists". After the data are

collected and analyzed, they will be made available to persons working in documentation centers and to others interested in the communications problems of scientists. A report on the testing of the methods employed in this study, together with examples of the data collected from a small group of physicists last fall, will be issued in the *AIP Documentation Newsletter*.

ANOTHER activity of the Documentation Research Project is the preparation of a check list of basic books in physics for a library collection that is suitable for a strong undergraduate program. The list is being compiled in cooperation with the librarians and the physics departments at Amherst College, Oberlin College, Pomona College, Reed College, Wesleyan University, and Williams College. A composite list of titles, which is not intended to include books that are primarily devoted to special research interests, will be prepared by collating the volume titles contained in the various lists prepared by the cooperating physics departments.

The aim is to prepare a check list of books which have been found to be useful in physics teaching and which should be seriously considered in establishing or expanding an undergraduate-level library collection in physics. The list is not intended to be definitive, but rather to contain information likely to be helpful to physics departments and to supplement other information. Efforts will be made to revise the list from time to time.

Career Booklets in Physics

THE Institute's Education and Manpower Department is issuing this month the latest in its series of career booklets designed to interest students at both the high-school and college levels in pursuing physics as a profession. *Rewarding Careers for Women in Physics*, by Dr. Elizabeth A. Wood of the Bell Telephone Laboratories, is based in part upon the discussion at an all-day Conference on Careers for Women in Physics held at the Institute last April. The booklet deals with the opportunities for women in the field as well as with the problems they face in their careers as physicists. It describes the range of activities open to women in physics by presenting a number of illustrative case histories. A comparative table listing typical salaries available to men and corresponding salaries open to women in various job areas in the profession is also given.

Two forthcoming booklets in the series will deal with

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LET'S SWAP RESUMES

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careers in college physics teaching and in high-school physics teaching. The first of these publications will consist of five chapters, each written by an outstanding teacher-physicist. The authors will discuss physics teaching in a liberal arts college, a women's college, a large university, a teacher training institution, and a graduate school. The articles will examine the nature of college physics teaching and the situation of the physics teacher in all of these environments. In addition, a list of source books on the subject of college teaching will be presented to aid the interested student in obtaining a more complete picture of the profession as a whole. The booklet also contains an illuminating discussion of comparative salary data illustrating the salaries generally available to physics teachers in relation to those earned by teachers of other subjects.

Intended for the student interested in secondary-school teaching, the AIP booklet on careers in high-school physics teaching will be organized in a manner similar to that of the college booklet in an attempt to present the points of view of high-school physics teachers from several regions of the country and from different types of schools. It is anticipated that both of these booklets will be available within the next three months.

Three other career booklets already issued by the Education and Manpower Department are: *Why Should You Study Physics in High School?*, *Physics as a Career*, and *Planning for Graduate Study in Physics*. They can be obtained from the Public Relations Department, American Institute of Physics, 335 East 45th Street, New York 17, N. Y. Requests for copies will be met without charge when ordered singly by individuals or in lots of fewer than ten by educational institutions. Larger numbers will be supplied at a cost of 10 cents per copy.

AIP—Asia Foundation Program

IN cooperation with the Asia Foundation, the AIP has developed a program to arrange for the shipment of back issues of Institute and Member Society journals to university physics departments and science libraries in Asian countries. Physicists who are willing to contribute back issues for this purpose in runs of five years or more will be fully reimbursed for the cost of shipping them to the Institute. In some cases, shorter runs will be accepted to supplement incomplete collections. Offers to contribute journals will be handled by Miss Heather Lechtman at the American Institute of Physics.

In addition to the above program, the Institute has for each of the past three years administered a \$2500 Asia Foundation grant to be used in assisting Asian physicists to secure membership and subscriptions to journals of Member Societies of the AIP, as well as to help with travel expenses to national and regional society meetings in the case of Asian physicists who are working or studying in the United States. Alto-