



Self-paced instruction at SUNY, Stony Brook. An Indian graduate student watches an experiment on conservation of angular momentum.

type course." As for the students, their professor estimated that three quarters of them liked it, one-eighth were neutral and one-eighth didn't like it. Hulsizer also said that the tutors felt that they learned so much from teaching, they were willing to work without pay.

Clifford Swartz, physicist at SUNY, Stony Brook and editor of *The Physics Teacher*, appears sold on the plan too, although he questions the association of Keller's name with it. According to Swartz, similar systems of teaching have been around since 1903 when Frederic Burk first introduced one at the San Francisco Normal School. At present over 400 students are enrolled in a self-paced course at Stony Brook, which has provision for students to choose from a wide variety of units including those with calculus and those without. Labs are operated as an integral part of the independent-study program. Swartz says that there are few schools where this is done.

In order to get some unbiased data on the effectiveness of the method, Michael Philippas and Raymond Sommerfeldt at Portland State University split a non-calculus introductory physics course into two random groups and taught one of the groups with the Keller Plan, the other with an ordinary lecture and recitation organization.

Both groups took the same final exam, and Philippas reports that there was no significant difference between the scores of the two groups. There were other differences, however. Of the 100 students who started in the Keller Plan group only 55 finished the whole course. Seven received "incompletes" and the rest withdrew. The lecture course lost only 26 students. Philippas said that the ones who did stay in the Keller Plan course were more enthusiastic than those in the conventional one.

All those interviewed agreed, however, that more work is involved in teaching a Keller Plan course. "If a person wants to do more work and do a good job he can use the Keller Plan,"

says Hulsizer. "On the other hand, he can use the recitations and lectures and do a perfectly good job."

The plan is, of course, not without its difficulties. Paul Szydlisch reports that during the beginning stages of a Keller Plan course in introductory physics at Plattsburgh, four young women became so upset by the news that they had not passed the first test that they all began crying in the lab. Szydlisch said however, that the situation was eventually straightened out to the satisfaction of all concerned.

There is little doubt that use of the Keller Plan in physics teaching is spreading. 75 physics teachers attended the MIT conference and of these 22 said that they already were teaching, or planned to start, Keller-type courses. According to Swartz, the lack of published materials is a significant factor preventing more rapid spread of the plan.

It takes a great deal of time to write the syllabus for a Keller Plan course and debug it during operation. Swartz hopes that publishers will soon include Keller Plan syllabuses in their textbook offerings.

—SMH

AIP publishes second conference proceedings

Particles and Fields—1971, the proceedings of the Rochester meeting of the APS Division of Particles and Fields, 30 Aug.–2 Sept. 1971 has just been published, according to Hugh Wolfe, series editor of the AIP Conference Proceedings Series. The hardbound book includes most of the invited papers presented at the plenary sessions of the conference as well as some of the papers given in other sessions.

Particles and Fields—1971 is the second in the AIP series. Proceedings scheduled to be published include conferences on Thermal Expansion, 26–29 Oct. 1971 at Corning, N. Y.; Superconductivity in d- and f-band Metals, 29–30 Oct. 1971 at the University of Rochester; Magnetism and Magnetic Materials, 16–19 Nov. 1971 in Chicago, and Particle Physics, 3–4 Dec. 1971 at the University of California at Irvine. The magnetism proceedings have been published for many years in the *Journal of Applied Physics* and will now appear for the first time in the AIP Conference Proceedings series.

Quantum-electronics journal translated

The American Institute of Physics recently announced the publication of a new bimonthly journal, the *Soviet Journal of Quantum Electronics*, translated from the Russian *Kvantovaya*

Elektronika. The journal will publish papers reporting experimental and theoretical work on quantum electronics and applications in science and technology, including lasers, interaction of coherent radiation with matter, holography, nonlinear optics and related topics.

The editor of the journal is Nikolai Basov, who, with Charles Townes and Aleksander Prokhorov, won the 1964 Nobel Prize in Physics for work that led to the development of the laser. According to Hugh Wolfe, managing editor of AIP translation journals, the Soviets anticipated the wide reception of this journal by Russian scientists; they printed twice as many copies of *Kvantovaya Elektronika* as of *Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki* (Soviet Physics-JETP).

AIP will offer the first issue of the translated journal in December 1971. A total of six issues will be translated by June 1972, after which publication will lag the Russian issue by six months. The journal will cost \$50.00 per year, and single copies are \$10.00.

Translations Center announces new index

The National Translations Center at the John Crerar Library in Chicago is the principal US depository and information center for scientific and technical translations. The center, which prints a semi-monthly list of newly acquired translations, *Translations Register-Index*, which is available on subscription for \$50.00 per year, is now planning a five-year cumulative index for 1967–71.

The center is supplied with translations prepared by Government agencies, industrial and research organizations and academic institutions, originally for their own use and then deposited at the center. The center, which also serves as an international clearinghouse of information on translations available from any known source in the US or elsewhere has, in addition to its own collection of 170 000 translations, information on over 250 000 translations available from other sources.

Operated under the guidance of an advisory board consisting of representatives of 15 professional societies, including the American Institute of Physics, the center is now partially funded by a service charge. However, the center is hoping for increasing self-support by expanding the subscription list of *Translations Register-Index* and by increasing the number of translations supplied.

Further information may be obtained from the National Translations Center, The John Crerar Library, 35 West 33rd St, Chicago, Ill. 60616.