

rate organization similar in scope to the actors and teachers unions.

Professor Stars in Astronomy Over Four-City Video Circuit

Playing to full-capacity classrooms in Bloomington, Indianapolis, Lafayette and Fort Wayne, Frank Edmondson, head of the astronomy department at Indiana University, is achieving two of his goals: Course enrollment is rapidly increasing and astronomy is made available to students on campuses where no regular department exists. Twice a week, he and his studio crew of three beam a two-semester introductory course on the solar system and stellar astronomy to 800 Indiana and Purdue undergraduates, including 60 students who view tapes of the lectures during special evening classes in Indianapolis and Fort Wayne.

With an enrollment that size, there is no opportunity for class participation, which comes through the medium of discussion sections conducted by 12 teaching assistants. Bloomington has 23 such sections with 8 TA's, and three TA's are responsible for three such sections at Purdue on Saturday morning. At Indiana's Fort Wayne and Indianapolis campuses, discussion sections are conducted over TV by a Bloomington graduate student. The classes in these sections hear and see their teacher while he only hears them.

The course originates live in a studio on the Bloomington campus where Edmondson lectures to 50 students; meanwhile 500 additional students view the lecture in two classrooms on campus. Microwave relay transmits the lecture to other campuses having no astronomy courses. Groups of 80 each view the video at Indiana's Fort Wayne and Indianapolis campuses and at Purdue's Lafayette campus. Edmondson communicates with the teaching assistants at Purdue on Thursday morning after his lecture. "As a result, I claim to have a better rapport with them than with my own TA's in Bloomington where we get together whenever the spirit moves us," he said in a recent visit to PHYSICS TODAY. Student performance on examinations differs very little between

Indiana and Purdue, and the difference is never greater than between two sections taught by the same TA.

An added virtue of the video lectures is preservation of course continuity whenever the teacher is away from class. Recently Edmondson took part in the dedication of the Cerro Tololo Observatory in Chile. During his three-week absence, his prerecorded tapes were played on schedule. The tapes for the special evening courses are shown in succession to Thursday-night classes at Indianapolis and Fort Wayne. A discussion section taught by a TA precedes these lectures.

"I make no concessions in teaching style to the TV," said Edmondson. "There is no script, only an outline and a time table of topics on a single sheet of paper. My main purpose is to distribute the course more widely." To put the course on TV, his crew of three includes an operator for the camera (fixed position but with zoom lens), producer and studio engineer who runs the tape recorder. As an "added fringe benefit" musical selections now replace the ugly noise that formerly tested the audio part of the circuit before the lecture. Thus Haydn's "Clock Symphony" introduces a lecture on time, and relativity is preceded by Berlioz's "Symphony Fantastique."

In 1963, the first year he went on TV, course enrollment dropped. But every year since then, the Bloomington class has grown by 100 compared with

the 30-35 annual increase in the years before video. At the other campuses, seating capacity imposes an unofficial ceiling on enrollment.

Nominations Solicited for Sixth Fritz London Award

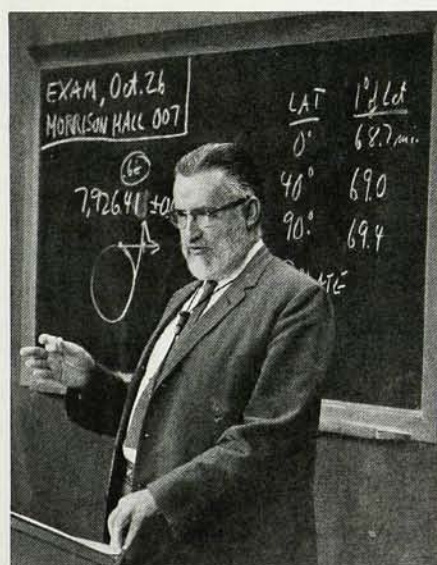
The Committee for the Fritz London Award, a prize honoring important contributions to basic low-temperature physics, is seeking recommendations for 1968. The sixth award will be presented at the 11th international conference on low-temperature physics this summer in Scotland. Suggestions (deadline 15 March) can be sent to the award committee secretary, Paul M. Marcus, IBM Research Center, Yorktown Heights, New York 10598.

New Immigration Laws May Check European Brain Drain

New US immigration laws that come into effect this July are expected to retard the entry of scientific and technical talent into the US from other nations, especially from industrialized western Europe.

The new and more liberal laws replace the old national quota system with a system of preferences, one of which is for professional-class immigrants. The total number of immigrants from the eastern hemisphere permitted into the US annually under the new law is fixed at 170 000, and the professional class will be allotted 10% of this figure or 17 000. Since each professional immigrant is accompanied by an average of one dependent, a total of about 8500 scientific and technical personnel may be permitted to emigrate from Europe, Asia, Africa and Australia, to the US each year. Furthermore the backlog of applications by professional people seeking to emigrate to the US from these areas is expected to reach about 48 000 by the time the new law comes into effect, and applications will be processed on a first-come, first-serve basis. This backlog comprises professionals from countries that have oversubscribed their quotas.

Consequently, future scientist immigrants who come from countries that have usually undersubscribed their quotas, such as the nations of western



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