

letters

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Don't hesitate to ask your local post office to investigate if the red card is not returned to you with Andrey Sakharov's signature in about a month's time. Your local post office is obliged, according to international postal convention, to make the investigation and, if unable to provide proof that the mail was delivered, to pay you compensation.

There is no doubt that such worldwide action will not only provide Sakharov with necessary scientific information but will also represent considerable moral support for him. It will be important for Soviet authorities too: they will see that Andrey Sakharov's case is not at all forgotten by the world scientific community.

F. JANOUCH

Research Institute of Physics
Stockholm, Sweden

9/22/80

Diverting research funds

In all the discussion so far about the service charges levied by universities on research grants there has been no mention of another source of drain on grant monies, namely the use of these funds by the researchers themselves to augment their own salaries.

The principal justification for this would seem to be the claim that academic personnel are only employed for nine months of the year. In the case of tenured faculty this is creative semantics, akin to the creative accounting allegedly used by some universities in calculating their own share.

Another reason might be an attempt to adjust salaries that are perceived as too low with respect to some ideal (usually commercial!) professional standard. However this has got nothing whatsoever to do with the funding of research, whether true or not. Furthermore any comparison of commercial and faculty salaries usually omits the influence of tenure, which is a major benefit in an uncertain world. Is it possible that at least part of the difference is an attempt by the market to express the value of tenure in cash terms? To repeat: all this has nothing to do with the funding of research and should be kept wholly separate from it.

D. SHER

9/10/80

Cincinnati, Ohio

More from China

I am very impressed by Gloria Lubkin's article "Physics Today in China" (March 1980, page 32). She reviewed and pictured the complicated status of this field, which she witnessed during



Anechoic chamber at the University of Nanking, one of the world's largest.

her short stay of three weeks there, after ten years of disastrous effects from the Cultural Revolution. I am sorry that she was visiting our labs during power outages and guided by a dim flashlight so she could hardly see anything; as a result her personal security was not even guaranteed when she walked into an anechoic chamber without previous knowledge!

To make amends, here is a picture of the chamber. It is $11.4 \times 7.8 \times 6.7$ m³, completely isolated, and is one of the largest of its kind in the world; the cutoff frequency is less than 70 Hz. Its neighboring room, the reverberation chamber, has a rotating vane mounted horizontally. The chambers belong to the Acoustics Institute (affiliated with the department of physics)—a five-story building consisting essentially of four research directions: electroacoustics and acoustical signal processing, nonlinear acoustics, molecular and bioacoustics, surface-wave acoustics and quantum acoustics (including the study of various modes of sound propagation in superfluid helium in the Low Temperature Building some distance away). In these studies of sound propagation Isadore Rudnick of UCLA rendered us great help during his visit last November. The Institute is the oldest (founded in 1954) teaching and research institute in China and is in some way unique; it has about 50 faculty members and about 100 students to be trained in this specialty (both undergraduate and graduate).

The physics department possesses the special feature of including nuclear, microwave, solid state, acoustical physics, and so on, while in most other universities Lubkin visited these sub-

jects are divided into separate departments. If there is anything worthy of mention, it is having more freedom than ever before for each university and each department to decide what they think best for teaching and research. Personally I always stick to my point of view, that is, for undergraduates basic training is more important than any specialty; this is in agreement with almost all American physicists. It is also worth mentioning that the university is comparatively old (second to Peking only, I believe). Last May marked the university's 82nd birthday. (By a happy coincidence, this date coincided with a visit from John Bardeen. So we had a joint celebration!)

We are aware of the problems or rather anomalies, such as surprisingly large staff and so on. Things are in progress but in slow pace. When Gloria Lubkin comes back for another visit, we do hope she'll find physics tomorrow in better shape than today.

WEI RONG-JUE (Y. T. WEI)

University of Nanking
China

10/27/80

Applying for employment

A few years ago, when I was a hungry graduate student looking for a job, I had to fill out copious application forms. Some of these contained rather queer items. I am reproducing here my response to some of these would-be employers, which my successors in the fascinating field of job-hunting might find useful. Bear in mind, however, that, if my experience is any indication, it will not elicit a reply.

Dear Sir:

I am enclosing my completed application form for the one-year visiting assistant professorship advertised in *PHYSICS TODAY*. You will notice that my entry under "Number of pages published in refereed journals" is not a very large figure. Let me attach a few words of explanation to what might, at first sight, appear as rather meager output.

I publish in journals that cram a great deal of material in one page. If you compare *Journal of Mathematical Physics* pages to, say, *Annals of Physics* pages, you will see what a great difference there can be. I also keep my sentences short and concise, and do not include a lot of empty talk and speculation to lengthen the articles. As a result, my papers contain many more equations than those of other authors. Note also that the symbols I use tend to be more esoteric and complex than those found in other papers. For example, I make heavy use of curly Roman letters and Hebrew characters.

I plan to write a rather long thesis—not less than 400 pages. In a spirit of frankness, I must add that these are double-spaced pages, in compliance with my university's regulations. However, I do plan to use the smallest typewriter pitch available so as not to lengthen the thesis unnecessarily (even though this preoccupation may work against me). Since my work is almost complete, you may want to consider this as a publication. I trust you will keep the above statements in mind when making your Employment Decision. Please contact me if you need further clarifications."

MAURICE M. MIZRAHI
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Alexandria, Virginia

9/25/80

Developing countries

The appeal to the world community of physicists for assistance in the solution of the problems facing scientists in developing countries written by William McGowan (August, page 9) suffers from an unfortunate omission. As pointed out in this article, two of the most discouraging prospects faced by scientists returning to their own countries are those of minimal contact with other scientists and the lack of sufficient scientific books and journals to maintain research excellence. Addressing these problems, in addition to providing an important meeting point for physicists of all countries, is the primary aim of an Institute that is by now well known for its excellence to a large portion of the scientific community; The International Centre for Theoretical Physics in Trieste, Italy. The ICTP is host to hundreds of PhD physicists from developing countries every year, providing the opportunity for interaction with world scientific leaders, and thus the stimulation that allows the scientists to return to their own countries and work with renewed vigor. The publications of the ICTP, and in particular the informal proceedings of typical conferences such as the bi-annual College in Plasma Physics, are carried back to the developing countries and used as source material for current research problems and for the preparation of course lectures. These notes form an important up-to-date guide to the status of current research.

The problems facing developing countries are, of course, not completely solved by the ICTP. However, organizations and individuals interested in assisting could well make use of the Centre and its experience. Those interested in more details regarding the structure and activities of the Centre are referred to an editorial in PHYSICS

RF power for plasma research.



We're proud to have supplied a number of broadband amplifiers for the Tokamak fusion research project at Princeton University. A 5-kW AR amplifier is being used as an rf pulsing driver in a three-stage cascade which culminates in 2.5 MW of plasma-heating power to the Princeton Large Torus (PLT). Other AR amplifiers, 10 W to 1 kW, perform various rf testing and calibration duties in the Plasma Physics Laboratory.

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