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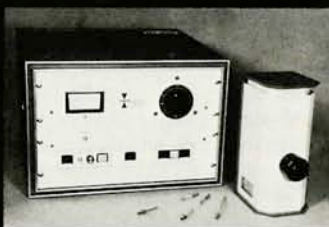
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## letters

nalism to caution that such temptations must not be dangled before the "childlike innocence" of Latin American scientists?

This collaboration we have been trying to encourage has not been lightly designed. We have actually thought hard and discussed this with a large number of colleagues. We are reasonably confident that benefits outweigh risks. This comes from a deep respect for the maturity and good sense of our Latin American colleagues.

LEON LEDERMAN  
Fermilab

11/82

Batavia, Illinois

## Publication scam

Organizers of scientific meetings have always had to face the problem of "no-shows"—that is, individuals who submit an abstract of work to be presented and, after its acceptance, do not even attend the meeting to present the work, causing disappointment and great trouble in programming. Of course there are often real and unavoidable emergencies which may prevent an author's presentation of the promised work; yet, one begins to suspect that this "no-show" practice is becoming *intentionally* a cheap way of fattening up one's publication list, for an abstract in a printed proceedings looks good, whether it's there legitimately or not! (One clue to the *intent* is that many "no-shows" later order reprints of their printed abstracts for dispersion to colleagues who must assume that the work was really presented.)

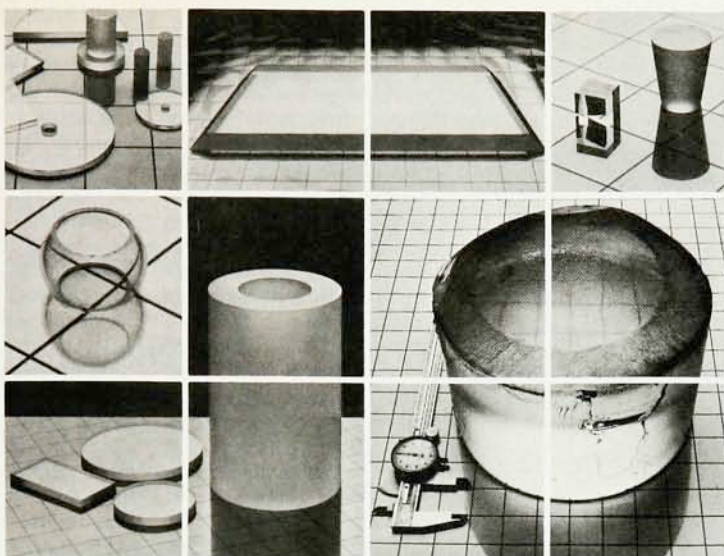
There appears to be no easy way to assure that proceedings of conferences are faithful to what actually takes place, since they're printed in advance of the event so that the abstracts are available to participants at the time of the meeting (a later errata list, for example, would be prohibitively expensive). It seems the matter must be left to the conscience and personal integrity of the individual author—or to the watchful eyes of the organizers, who should have the right to "blacklist" frequent perpetrators of this publication scam.

L. GANDOLFI  
Visual Dynamics, Inc.  
Skokie, Illinois

11/82

## Arrests in Pakistan

Amnesty International has reported that Jamil Omar, lecturer in computer science at Quaid-i-Azam University, Islamabad, Pakistan, has been arrested for distributing pamphlets entitled "Democratic Pakistan." Also arrested



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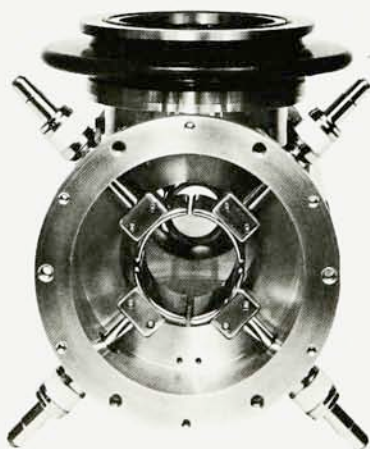
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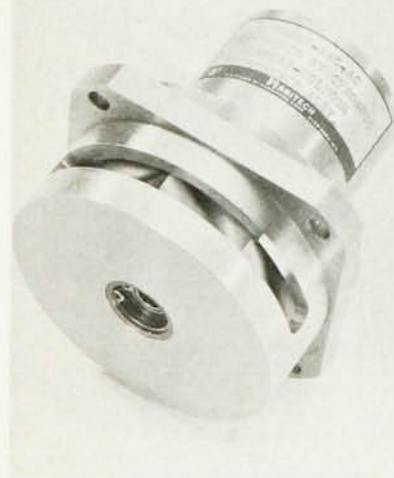
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## letters

were a lecturer in chemistry, Mohammad Saleem, and Tariq Ahsan, lecturer in political science. Information from AI indicates that these scientists were only expressing themselves freely. AI further reports that since their arrests in November 1981, they have been tortured by the authorities. AI requests that letters on behalf of these individuals be written by fellow professionals and academicians to indicate their deep concern for the treatment of persons incarcerated for the simple act of self-expression. Therefore, I urge the readers of PHYSICS TODAY to write to one or both of the following individuals expressing their concern for the prisoners, and urging their release from custody: Mohamed Ali Khan, Minister of Education, Islamabad, Pakistan; Zafar-ul-Haq, Minister of Information and Broadcasting, Islamabad, Pakistan.

I may note that AI has adopted these persons as prisoners of conscience and is urging a letter-writing campaign on their behalf.

EMILE RUTNER  
Dayton, Ohio

11/82

## Should God save the Queen?

In regard to our letter concerning the frustration of physicists (April, page 89), the response by Robert Bell (August, page 78) is rather amazing. He readily admits his ignorance of the subject, but this very fact does not seem to prevent him from judging us. Perhaps it was the page number "89" which incensed him by induced association with the 1789 French revolution! In any case, the strong point of his letter is an aggressive verse of the British national anthem. In other words, to speak subjectively about physicists is for Bell a direct aggression against the foundations of the "Royal Order." What a nice illustration of the spectacular power produced by physics, like a "church of natural order." Who would then think to accuse its "priests" of frustration? From the opposing viewpoint we say that research is not devine. It is the result of human activity which, by definition, is subjective. The gap between objectivity and subjectivity in science is not as large as people would like to believe. If it is true that the word frustration has had historically various meanings as quoted by Bell, the Freudian one is actually the most commonly used. Moreover, from the physical situation where the word frustration is used, it is evident that the underlying meaning is the Freudian one.

To pursue our "knaveish tricks" let us talk about "chaos" in physics. The

wide interest concerning frustrated objects has now moved toward "chaos." This is indicated by the increasing number of "chaotic" publications on the subject. First introduced in mathematics, the concept and study of chaos is spreading to various fields of physics, in particular to condensed matter (localization, spin glass, phase transitions) and hydrodynamics (instability, turbulence). It is only a beginning. The actual "chaos" in the western world compels one to look for a link between the sudden interest of physicists for chaos and the confrontation of society to the uncertain future of the world. The two basic approaches to chaos in life also exist among physicists: the optimistic one of those who look for "order" in "chaos" and the pessimistic one of others who see "chaos" in "order." This whole *état de fait* leads us to perceive physicists as a reflection of society. Through the problems they study, they would in fact express collective social anxieties. This is only our hypothesis, and we would like to hear other opinions.

SERGE GALAM  
City of College of New York  
New York, New York

PIERRE PFEUTY  
Centre d'Orsay  
Orsay, France

11/82

## PhD a must for teaching?

Is the PhD degree necessary for college physics teaching? If so, why? If not, what degree is necessary?

First, let's consider the nature of the PhD itself. This degree indicates two things (at a respectable institution): the recipient has successfully demonstrated an advanced knowledge of physics, and he has completed research of a quality which is publishable in refereed journals. However, it indicates nothing about his teaching ability.

Second, let's consider the nature of four college physics teaching positions: (1) directing graduate research and teaching graduate and undergraduate courses, (2) teaching a full range of undergraduate courses in a four-year institution with release-time given for research, (3) teaching a full range of undergraduate courses in a four-year institution (without release time for research) and (4) teaching general courses in a two-year institution.

Now, let's address the questions raised in the first paragraph. It is clear that a PhD is required for positions 1 and 2, since research is part of the nature of the positions. However, research is not part of the nature of positions 3 and 4, so a PhD is not required—indeed, a research-oriented PhD physicist would find himself frustrated in either of these positions.