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letters

I am compiling a list of problems that physicists might attempt to solve that are related to the side effects of scientific discoveries. I invite readers to peruse the list in its present form and to assist in its development and distribution. Most of us would agree that we do physics because it is the purest pleasure that we experience. Such pleasure demands compensatory *pro bono* work, out of symmetry considerations, if nothing else.

JAN BEYEA

National Audubon Society

950 Third Avenue

New York, New York 10022

Clearing up optics credit

Writing the AIP year-end *Physics News* special reports must surely be a thankless task. Those physicists whose work is featured are certainly gratified, but numerous others who are not mentioned are undoubtedly disappointed and dissatisfied. Which topics to include and what aspects to emphasize are, of course, left to the judgment of the reviewer who prepares and signs the report, and there is little point in airing complaints as to why this or that area was not covered. The situation is totally different, however, when a particular aspect of a given topic is chosen for discussion, but credit is given to only one of two identical, independent contributions.

In his review on photon localization (January 1987, page S50), S. James Allen explicitly discusses three of the four experimental papers in this area that have appeared in *Physical Review Letters*. The fourth paper, inexplicably omitted, is ours. The first two papers Allen discusses, by Meint P. van Albada and Ad Lagendijk¹ and by Pierre-Etienne Wolf and Georg Maret,² describe weak localization in coherent backscattering of light from polystyrene spheres suspended in a fluid medium. Although there is a difference of two months in received date for these two papers, Allen quite properly gives equal credit to the two groups for making independent, nearly identical and equally important contributions. In rigid media the scattered light is dominated by large-amplitude fluctuations that completely swamp the coherent backscattered peak. However, this peak is still there and can be recovered by ensemble averaging. This was shown by both Shahab Etemad and coworkers³ and by us,⁴ but unfortunately Allen fails to mention our work. In this case there is also a difference in received dates (only six weeks), but our

paper was received almost two months before publication of that of Etemad and coworkers, and a comparison of the two papers makes it perfectly clear that they are independent, equally important contributions that lead to the same final result.

I'm sure that Allen's oversight in omitting our paper was simply due to the impossibility of being aware of every significant contribution to the vast field of optics. This difficulty might have been alleviated somewhat for the work of Etemad and coworkers since they and Allen belong to the same organization, Bell Communications Research. Having myself spent six years at Bell, I know that the management is extremely sensitive on the matter of ensuring that proper credit is given to work done outside that institution. Accordingly, I'm sure that Allen is as interested as we are in seeing to it that the record is set straight.

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ISAAC FREUND

Bar-Ilan University

Ramat-Gan, Israel

2/87

ALLEN REPLIES: Isaac Freund's indignation at not being cited in the *Physics News* in 1986 article on photon localization is well justified but unavoidable. The deadline for contributions for 1986 was in fact 1 August 1986. Since his work was published in October 1986, I was unaware of it at the time of submission. Otherwise it certainly would have been cited in the article.

For the record, Freund is correct. He and his coworkers recognized and documented the importance of ensemble averaging essentially at the same time as Shahab Etemad and coworkers, and they should share the credit for this important contribution.

S. JAMES ALLEN

Bell Communications Research

Red Bank, New Jersey

7/87

Aiding Latin American physics

On 1 July 1984 the International Physics Group of The American Physical Society obtained a two-year, \$300 000 NSF grant devoted to the Latin American Assistance Program. That program supported physics programs in Argentina, Brazil, Chile, Mexico and Venezuela. The funds offered help

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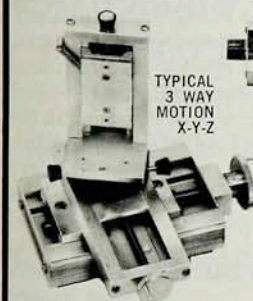
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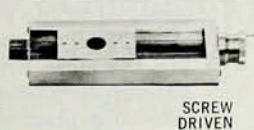
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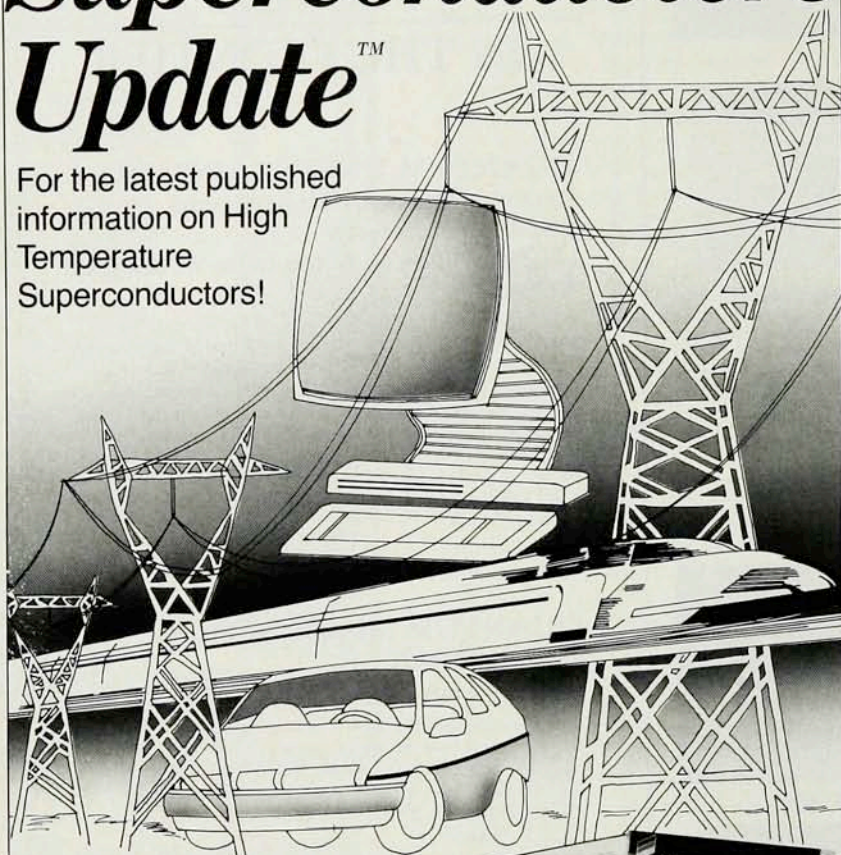
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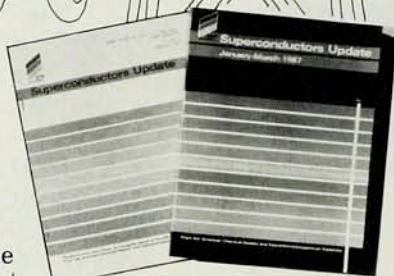
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letters

with payment of journal subscriptions; payment of page charges for articles authored by Latin American physicists and submitted to refereed journals in the United States; acquisition of small spare parts, pieces of equipment and maintenance items needed to keep major equipment running; and payment of *per diem* expenses for selected Latin American physicists while they were in the United States.

Many Mexican scientists benefited from the program and we gratefully acknowledge the support received. Our country has been suffering an economic crisis in the last several years, and the program briefly gave relief to the Mexican physics community. It is difficult to overestimate how this kind of program can help to keep physics research running. Fortunately, persons like Leo Falicov and Leon Lederman, who were responsible for the program, understand well the problems and limitations that the Latin American physics community suffers. We also acknowledge their understanding and interest in helping the development of physics in Latin America.

After two years of fruitful activities, the Latin American Assistance Program has ended. We feel that an extension or renewal would be most welcome. The economic situation in our countries, far from being stabilized, is worse now than it was two years ago. Any support from programs like the one mentioned would certainly not just give some breath to the Latin American physics community, but could be essential to the development and survival of physics research in the area. We therefore urge the international physics community to conceive new assistance programs in the spirit of the Latin American Assistance Program.

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4/87

Aharonov-Bohm, meet Hall

I read with interest the letter by Francisco Izaguirre (October 1986, page 15) speculating on the similarities between the Aharonov-Bohm effect and the quantized Hall effect. It was