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letters

fact a proof that a theory of his own invention is inconsistent, but this theory does not have the correct classical limit for it to be regarded as the quantum field theoretic generalization of a classical magnetic-monopole theory. On the other hand it is true that the kinematics of relativistic scattering amplitudes for electric and magnetic charges is quite consistent if n_{ij} is integral or half integral although it has its own peculiarities.³ For example the decay of particle 1 into particles 2 and 3 with spins s_1 , s_2 and s_3 is forbidden unless $s_1 + s_2 + s_3 \geq (4\pi)^{-1} |e_2 g_3 - g_2 e_3|$. The usual connection of spin and statistics is lost unless n_{ij} is integral.³

References

1. C. A. Hurst, *Ann. Phys.* **50**, 51 (1968).
2. D. Zwanziger, *Phys. Rev.* **176**, 1480 (1968).
3. D. Zwanziger, *Phys. Rev.* **D6**, 458 (1972).

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Space colony society

It may be of interest to the readers of *PHYSICS TODAY*, the magazine that first published G. K. O'Neill's description of how the L-5 point of the Earth-Moon system can be colonized (September, 1974, page 32), that an L-5 society has been formed. The expressed purpose of this society is to disband the society at a mass meeting on a space colony at L-5. Membership dues (regular \$20.00 or student \$10.00) support a monthly newsletter, L-5 News, and various other space-colony promoting activities. The L-5 society appears to be becoming an important clearing house for current information on space-colonization activities. I wish to encourage persons who have pertinent information they wish published or who wish to promote or receive information about space colonization, to communicate with the society (the L-5 Society, 1620 N. Park Avenue, Tucson, Arizona 85719).

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Physics comes of age

With quantum mechanics we enter a region in which the system of interest is perturbed by any measurement, with the result that there are inherent uncertainties in the extent of our knowledge of the system parameters. The profession of physics and the society of which it is a part now stand in a somewhat similar relationship. Any large undertaking in physics (large either in intellectual terms or in terms of dollars) will have its effect on society and be reflect-

ed back in a complicated and not easily predictable way into the profession of physics. In this regard physics now finds itself in the same position as many of the other major segments of society. It has joined the ranks of the armed forces, the churches, the federations of labor unions, and the institutes and *de facto* governing bodies of the major industries. In this sense physics and the other basic sciences have come of age.

Yet month by month we see in the pages of *PHYSICS TODAY* a wish to evade this irreversible situation. Some correspondents write in to say that too much attention is being paid by physicists to "society-related" problems and not enough attention is being paid to "basic" research. Others write in to say just the opposite. What is not recognized is the fact that these terms are no longer meaningful in the sense that held one hundred years ago before the results of physical research had so visibly altered the conditions and possibilities of human life. The confusion arises perhaps because the nature of the subject of physics has not changed but its practice by physicists in the aggregate has altered forever.

The leadership of The American Physical Society has been no more perceptive. It persists in using these outmoded terms and even in dividing jobs in physics into "traditional" and "non-traditional" categories. The truth is that there are no longer, nor will there be again, any traditional jobs in physics in the sense that applied even as late perhaps as the 1930's. Until these attitudes are changed and the leadership of the profession, and through it the ordinary physicist, comes to have a clear idea of the present situation we will continue to experience crises in physics. It is no longer enough to have a leadership for the profession which practices professional physics and amateur sociology and psychology. Such schizophrenia will only produce further examples of response after the fact, like those we have seen and continue to witness in the physics-employment crises. What is required is for the physics community to study and understand its situation in the real world and to begin to act in an integrated manner recognizing both the nature of its power and promise, and the extent of its responsibilities.

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Correction

February, page 70—The last paragraph on the page should begin: Bell Labs funds a wide spectrum of research, but unlike a university, the research must be relevant to the Lab's broad communications mission. □