

New linear accelerator to take wing?

At a time when physics is faced with funding crises everywhere, it is reassuring to find that some research projects can still be run on mere chicken feed. In this regard, we call attention to the recent announcement, by the National Research Council of Canada, of the successful operation of a new linear chicken accelerator, or LCA (see *Chemical and Engineering News*, 2 November 1970, page 56). The LCA, which is capable of accelerating a four-pound chicken to speeds of 620 mph, is currently being used as a flight-impact simulator in an engineering study of airplane-bird collisions. But we believe it may have application as a basic research instrument, since—in more familiar terms—it has a rated energy of 5×10^{14} GeV, which makes the LCA the most powerful accelerator of its kind in the world today.

A careful study of high-energy chicken-chicken collisions, with due attention paid to the production of virtual chickens (i.e., eggs), could lead to a resolution of an age-old question of causality, namely, which came first, the chicken or the egg? At somewhat higher energies, one could look for the production of the intermediate vector chicken, or hawk, and in general study the problem of rooster-hen coupling. At yet higher energies, the scattering would of course be discussed in terms of the Pomeran-chicken trajectory. Crossing symmetry would be important here, and one could hope to discover why, or even whether, the chicken crosses the road. By simply replacing the chickens with ducks, one could undoubtedly establish a threshold for the production of quacks.

Although group-theoretical cacklations based on the eight-fowled way can be expected to establish a pecking order, a really comprehensive theory would be based on an appropriate egghenvalue equation. Quantization would then naturally proceed by introducing the "capon," with appropriate truncation. It should be noted that capon-chicken coupling may be assumed to be very weak to all orders. A clue as to the correct form of the egghenvalue equation might be provided by noticing that Coop(er) pairing is obviously described by interactions such as $\psi^* R \psi$, where R



is the propagator, or rooster function. Owing to a lack of bilateral symmetry, it seems clear that operations such as $R\psi$ probably do not occur naturally,

if at all. These theoretical difficulties obviously leave us with nothing to crow about.

Yet much can be done. The LCA should be used to measure breast masses and farm factors. A determination of Rooster's angle would probably help to establish the correct egghenvalue equation. Coherent production of chicken-anti-chicken pairs could be investigated by analogy with the well known dove-hawk interaction, which quickly produces a state of incoherence and annihilates to a large number of put-ons. In this regard, we might ask whether the beautiful picture of an elementary particle that appeared on the cover of the 27 November 1970 issue of *Science* is really a put-on or a capon? We suggest that a Feather's analysis be carried out immediately. Who knows: there may be a Pulitzer prize in all this. We have only scratched the surface!

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Reply to accusations against Polaroid

Scientists attending the New York meeting of the APS and AAPT in February could hardly have missed hearing or reading assertions that the Polaroid Corporation is assisting the repression of blacks in South Africa [see page 65]. These statements have been made over the past several months by a small group called the Polaroid Revolutionary Workers Movement, and they have been uncritically accepted by some members of the Scientists and Engineers for Social and Political Action (SESAPA) as evidence of the misuse of science. As Polaroid scientists who were there, we were distressed to see the statements presented as fact to a scientific meeting and feel they demand our response.

The substantive assertion made by SESAPA was the following, quoted from one of their handouts: "The Polaroid ID-2 system is now being used to produce the 15 million passbooks that every Black South African must carry at all times or else face imprisonment."

The truth is that no passbook photographs are now or have ever been taken with the ID-2 system. The revolutionary group has known this for four months.

Polaroid has no investments in South Africa, and it has no subsidiary there. Polaroid sells its products to a single, independent distributor in South Africa, Frank and Hirsch, Ltd. Sixty-five ID-2 systems have been sold in South Africa, 52 to private businesses and 13 to the armed forces. Sales to the apartheid agency have been specifically forbidden by company policy.

When, in October, the revolutionary group first asserted that Polaroid was aiding apartheid, the company responded with a serious and extensive investigation ("Polaroid—A Corporate Guinea Pig," *Boston Sunday Globe*, 31 January 1971, page 1). Its aim was to determine how our other products were in fact being used in South Africa, and how, as a single US company,