

policy *per se* but the representatives from East Dudley ask the conference to "view with concern the pending exhaustion of some of the natural resources of our overcrowded Islands and to look to the government for an enlightened strategy for those resources and for population".

Higher education does not receive much attention from the Conservatives or the Labour Party but the Liberals on Friday morning will be discussing education from the age of 16 onwards. But the few resolutions on this topic are in a familiar vein. The Conservatives are to be asked to make student loans repayable "over a reasonable period, or on emigration, or by undertaking two years approved civic or social work".

The Labour Party conference will be asked by the National Organization of Labour Students to abolish the system of discretionary awards and to provide maintenance awards at full value to all students in higher education. A novel motion in the Labour Party agenda this year is a call for all workers to take a year's "sabbatical" every fifteen years—at full pay, of course.

#### PARTICLE CONFERENCE

## Need for Exposition

from *La Recherche*

THE second Aix-en-Provence International Conference on Elementary Particles ended on September 12 after a week's review of new developments in particle physics. Attended by more than 600 physicists from (almost) all over the world, the colloquium was, in fact, the seventh in a Europe-wide series begun in Aix in 1961 and it was organized by the European Physical Society and the Société Française de Physique. This year's meeting had a few sideshows, not all connected with particle physics, of both the planned and unanticipated varieties.

The scientific content of the conference was straightforward and without surprises\*. But it was the social and even political appendages which made things livelier than usual. In an era when subatomic physics is still not clearly understood by nonspecialists, the organizers and the French hosts had the good sense to schedule some popularization sessions at first called "About Particles and Physicists" but later transformed conveniently to "Aix-Pop"—a series of end-of-day encounters

\*There were sessions on the electromagnetic production of hadrons, hadron spectroscopy, hadron decays, neutrino interactions, strong interaction theory, unified theories of weak and electromagnetic interactions, new trends in field theory, elastic scattering and low multiplicities, high multiplicity reactions, large transverse momentum phenomena, and 400 GeV physics. Briefer sessions were devoted to weak interactions and neutral currents.

between physicists and local citizens. High energy physics was explained from A to Z—for those who wanted to know—mainly in the open court of the stately seventeenth century Hôtel Maynier d'Oppède mansion.

There, under the shade of enormous plane trees, the man or woman in the street could wander in and browse among static or working models of accelerators, bubble chambers, spark chambers and cloud chambers. There was also a demonstration to explain quarks. Also explained or contested were antimatter, the ecological and military aspects of nuclear energy, research and its relation to economic growth and the research needs of the developing world. The people who came off the street to see the exhibits (and operate some of them), as well as to meet theoretical and experimental physicists in the flesh, were those one would expect: the ones who venture to the theatre, a concert or an art gallery. The working man's social stratum was not represented in these encounters at Aix, so next time the organizers will use a new approach in trying to educate the public in high energy physics. They will go to residential and shopping neighbourhoods to make contact, according to Michel Crozon of the Collège de France.

Why this pre-occupation with the popularization of something assumed to be arcane to the nonspecialist? Professor Victor Weisskopf of MIT perhaps explained it best when he lamented that astrophysicists and radio-telescopicists always seem to command public attention while the layman simply has not been stimulated by anti-neutrinos, hadrons and pomerons. "Imagine", visualized Weisskopf, "carrying on an enthralling conversation with a layman about neutral currents. We are to blame: we spend too much effort in trying to publicize the latest findings and theories".

## Coming Shortly

THE latest television programme in the series which has included *The Violent Universe*, *The Mind of Man* and *The Restless Earth* has just been completed. It is written by Nigel Calder and called *The Life Game*, and will be shown in the Netherlands on September 24, Belgium on September 25 and 26, Canada on September 30, Australia on October 3 and Britain on October 13. Dates for showings in Germany, Sweden and the United States are not yet available.

In *Nature* on October 12 Nigel Calder will write on the problems of presenting science as intellectual entertainment.

Weisskopf also pointed out that one of the world's most prestigious journals dedicated to making science popular "publishes one article every two years on high energy physics, whereas we have about 10–15% of the total civil research money in the world. Yet scientists and science writers have no problem in bringing out articles on continental drift one after the other. It's our job to make our own work known to the rest of humanity".

The People's Republic of China was represented for the first time in this series of conferences. The three-man team from Peking was headed by Professor Chung Wang, director of the Institute of Atomic Energy. The Chinese, who were *en route* to their homeland after a week's visit to Stony Brook and the Batavia research institutions in the United States, presented no papers although Professor Wang served as chairman of the session on neutrino interactions.

Physicists from Australia or New Zealand were, however, not officially present at the Aix congress. An unofficial observer, from the Australian National University at Canberra, charged publicly that French visas had been denied to Australian and New Zealand scientists wishing to attend the conference, presumably because of the currently strained relations emanating from the French nuclear testing at Mururoa Atoll. But the meeting's official organizing committee adamantly and repeatedly denied that there had been official interference by the French government in regulating attendance by New Zealanders or Australians.

Aix has recently felt ripples of the racial antagonism between natives and imported North African labourers in nearby Marseille and a petition was circulated at the meeting, asking men and women of the world of research to condemn racism. At least a hundred signatures were collected. Meanwhile, the French Communist Party unit at the Cadarache Nuclear Research Centre circulated broadsheets to conference participants fixing the responsibility on scientists and engineers for pollution, spoilage of the environment and the subservience of man to machine. "Only socialism can master our economic growth", proclaimed the flyer.

Summing up the trials and tribulations of the particle physicists in their general relationship with the other sciences, governments and the public, CERN's D. Amati hypothesized that "Possibly we are too institutionalized as professional scientists". He suggested that high energy physicists become more flexible in their dealings with people outside their discipline. Commented Weisskopf, "I would like to think that you are wrong, but I believe that you are right".