

units of strangeness Ω^* (2253), like the famous Ω (1642) that in the sixties established the SU(3)-symmetry among the u, d and s light quarks, or a baryon carrying both charm and strangeness.

From time to time it is good to interrupt a long series of experimental results by listening to a pure theoretical talk. The eminent Russian field theorist L.D. Faddeev offered a very clear and solid seminar on a possible strategy toward giving sense to theories with anomalies.

The fascinating interplay between particle physics and cosmology was described by J. Ellis. He stressed with special emphasis the importance of obtaining an experimental solution to the problem of dark matter in the Universe (see page 138). An exciting possibility discussed by Ellis is that the mysterious all pervading substance could be made of photinos, the supersymmetric partners of the ordinary photons. Supersymmetry at relatively low energy was also discussed by G. Kane in his report on the possible avenues beyond the standard model. While the relevance of supersymmetry for physics at energies accessible now or in the predictable future in our laboratories is at the centre of the debate, many theorists think that supersymmetry can be considered as established at the Planck mass. This belief arises from the, at present, most promising framework for a theory of quantum gravity, namely the theory of superstrings, reviewed by M.B. Green. As perhaps one could have anticipated, there is now less optimism about any short-range practical feedbacks into particle physics of this really gigantic conceptual enterprise.

I think that a very lively and healthy picture of particle physics has emerged once more at the Uppsala conference. In this respect the formula with both parallel and plenary sessions has confirmed its virtues. Although perhaps more demanding for the audience it has the merit of offering a larger number of facets of the field. The community of particle physics is at present working very hard to explore better the foundations of the standard model hoping to find a clue toward a new layer of physics. In this respect, as I tried to make clear in my summary talk, the most important goal of particle physics in the next decade is to clarify experimentally the origin of the Fermi scale of mass, of order $G_F^{-1/2} \cong 300 \text{ GeV}$ which fixes the W and Z masses. In other words, one has to validate the Higgs sector of the electroweak theory, which is responsible for the spontaneous breaking of the gauge symmetry. There are, in fact,

Experimental Nuclear Physicist

There is a vacancy for an experimental physicist to join the Nuclear Structure Facility (NSF). The experimental group is involved in carrying out and supporting a broadly based research programme using a 20MV tandem.

The successful applicant will liaise with university research teams, collaborate in nuclear research programmes and play an active role in initiating and developing new programmes. Other duties will involve work on the design and development of major equipment through to commissioning, operation and maintenance. As a member of the in-house team of scientists he/she will be expected to provide expertise in the methods of experimental nuclear physics and to aid and direct the technical and scientific support staff in operating the NSF and for diagnosing problems as they arise.

Applicants should have a good honours degree in an appropriate discipline or equivalent with a period of postgraduate experience. A Ph.D degree in nuclear physics and a period of post doctoral experience in experimental nuclear physics would be an advantage. The appointment will be in the grade of Higher Scientific Officer with a salary range of £9219 to £12505, starting salary depending on qualifications and experience. The superannuation scheme is non-contributory.

CLOSING DATE - 15 December 1987.

For further information please contact:

Dr. J. S. Lilley on (England) 0925 (603558).

Application forms may be obtained quoting reference DL/26 from: The Personnel Officer, Science and Engineering Research Council, Daresbury, Warrington WA4 4AD, England. (24 hour answering service).

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convincing theoretical arguments indicating that some form of new physics must be hidden near the Fermi scale. In particular, a fundamental Higgs appears to require supersymmetry signals just above the Fermi scale. Alternatively, some form of compositeness should become manifest, or possibly even supersymmetry and compositeness. Whatever the final outcome, it seems unavoidable that experimental studies in the TeV energy domain will lead to new fundamental discoveries. The large effort which is being made precisely aims at crossing this new frontier of particle physics.

1987 Nobel Prize for Physics

Following closely on the award of the 1988 EPS Hewlett-Packard Europhysics Prize, the 1987 Nobel Prize for Physics has been awarded to J.G. Bednorz and K.A. Müller of the Zürich Laboratory of IBM for their discovery of high temperature superconductivity in a layered oxide of copper, barium and lanthanum.

An appreciation of their work will be given in the next issue of *Europhysics News*.

University of Namur

Postdoctoral Positions

The Institute for Studies in Interface Sciences (ISIS) of the University of Namur has several research positions at the postdoc level for physicists or chemists to work in the following areas:

- 1) STM microscopy and spectroscopy;
- 2) Thin film synthesis and interface characterisations;
- 3) Theoretical research in physico-chemical properties of interfacial systems. The one-year positions are renewable and available immediately.

Applications should reach Prof. A. Lucas, ISIS-FUNDP, 61, rue de Bruxelles, B - 5000 Namur, Belgium. Tel. (32) (81) 22 90 61.