



COMMON/ CSCALE/ IBM , NERR, NCH, NGAP, ISCAN, NBR, NGR, NSCAN, RO
1 IYSEL, IYSEU, IYMAX, NTRACK, NSCAN, NES, NFAIL, MAXTR, MAXNC 1
2 NBEGIN, NTK, NTRY, NMISS, NSSR, NFID, MAXMIM, NFIRST, NEND, J1
COMMON/ CFID/ MFX(20,3), MFY(20,3), NFDX(10,3), NFX(3), NFB(3)
STAB(2,20,3), NX(100,4), NY(100,4), XN(2), YN(2) bulletin 2
R IDY(100,2), JDX(4), JDY(4), IHS(4), ICV(2), IUN(2), IDEL(2), I
S NCF(16), IFS, NFS, FX, FY, JK, PIC, KPIC, NQUANT, NRIN, NMAX
T MAXN, CTA, CTB, MX, MY, 12 - 26 January 1976
DIMENSION NCTR(144), NGTR(20), CTR(112), STR(12), MODE(21)

Last April, the Local Suggestions Awards Committee approved the award of \$200 to a member of Nimrod Division for his suggestion on lighting economies in Hall 3. The Bulletin report on the presentation of the award ended with the words - "Any advance on \$200?"

Eight months later the question was answered in no uncertain manner by Mr Norman R Goddard of Nimrod Division who received a cheque for £500.

Norman's suggestion concerned a method of modifying the bases used for quadrupole magnets so that the Type 2 base could be used in place of Type 1 also that future orders should be of the dual purpose type.

As usual, the most significant advances and breakthroughs are those which hindsight shows to be the most simple and relevant suggestions - but it always takes a perspicacious mind to see where these developments are possible.

From the list of suggestions for which awards have been approved (shown as a separate item) it is apparent that the Laboratory is fortunate in having so many members with these attributes.

The presentation on Friday,



19 December was made by the Director who, although heavily committed, had wished to hand over the cheque before Christmas. (Some Christmas present!). Dr Stafford said that Norman had been around the Laboratory for some time (in fact - 10 years) and remarked on the number of previous awards he had received

for suggestions (eight in the last four years). Dr Stafford stressed the importance of any suggestions that could save the Lab money.

To no ones surprise, Norman, apart from thanking the Director had very little to say. Perhaps he was too preoccupied with reading the figures on that cheque!

RUTHERFORD LABORATORY The
LECTURE speaker

next lecture in this series is
no stranger to the Laboratory.

Sir Denys Wilkinson, FRS, Professor of Experimental Physics in the University of Oxford since 1959, Head of the Department of Nuclear Physics since 1962, was a founder Member of the Governing Board of the National Institute for Research in Nuclear Science under which the Rutherford Laboratory was established.

He was a member of the SRC from 1967-1970 and Chairman of the SRC Nuclear Physics Board 1968-1970, he also has close ties with CERN.

The title of his talk, to be given in the Lecture Theatre at 15.15 on Thursday 15 January is - 'What is the Nucleus made of?' & Sir Denys has kindly supplied the following summary:-

It used to be thought that the nucleus was made of neutrons and protons. We now know that this picture has to be supplemented in essential ways by the explicit introduction of nucleon clusters, exchange mesons, excited nucleon isobars and other bric-a-brac. The lecture will develop the arguments in a non-specialist way and will present a nuclear contents table.

JENX REPLIES The following
letter has been
received by the Editor.

I'm sure you will find some suitable medium to convey my thanks to Dr Stafford for his kind valedictory letter in your Bulletin; also to thank those who contributed so handsomely towards my parting gift.

It is an open secret that I felt unable to submit myself to the terrors of a public ceremony of presentation. Let me say, however, how sorry I was not to have been able to say goodbye to my friends and to give the others the chance to say goodbye to me.

Look after poor Nellie; don't let her starve.

Sincerely, Jenx.

INTERNAL EVENTS

REPEAT OF S 120 TALK
Tuesday, 13 January
5.15.
Lecture Theatre

In Bulletin No 25/75 we commented on Chris Damerell's talk on the S 120 experiment, given on 2 December and we said, quote "At last here was a particle physicist who managed to talk about his work in a way which was interesting and informative to specialists and non-specialists alike." So many requests have been received for a repeat that Chris has agreed to retell his story of what goes on behind the scenes in a high energy physics experiment.

TRADE PRESENTATION
Tuesday, 13 January
10.00 - 16.00
R12 Conference Room

John Hodgkinson and Kevin Tolley of Technitron Inc and Base Ten Systems Ltd will demonstrate pDAS, a new concept in Data Acquisition Systems.

HEP SEMINAR
Wednesday, 14 January
11.00
R61 Conference Room

Large p 'Phenomena and Vector Mesons.

I Halliday/Imperial College

FILM SHOWS
Wednesday, 14 January at 12.40
Thursday, 15 January at 13.15
Lecture Theatre

'Nobody's Fault' is the first in a series of seven safety films to be shown at fortnightly intervals. This 20 minute colour film has won a number of awards. Set in a Laboratory and plant, it brings home to audiences how a series of seemingly innocent actions can have tragic consequences.

RUTHERFORD LABORATORY LECTURES
Thursday, 15 January
15.15
Lecture Theatre

What is the Nucleus Made of? (see 'News' section for details).

Sir Denys Wilkinson/Head of Department of Nuclear Physics, Oxford University

NIMROD LECTURE SERIES
Monday, 19 January
11.30
Lecture Theatre

Direct Lepton Production

Dr G Ringland/RL

HEP SEMINAR
Wednesday, 21 January
11.00
R61 Conference Room

Results from the HPWFv Experiment

R Orr/CERN

HEP DATA HANDLING SECTION SEMINAR
Wednesday, 21 January
13.30
R61 Conference Room

Formal Languages

P P Haskell/RL

SEMINAR IN COMPUTING
Friday, 23 January
11.00
R61 Conference Room

The ICL Distributed Array Processor (DAP)

D Parkinson/ICL

The different methods of attaining computing rates of the order of 50 million instructions per second will be discussed. The architecture of the DAP will be summarised, together with its proposed method of attachment to 2900, and the range of applications suitable.

EXTERNAL EVENTS

OXFORD UNIVERSITY

NUCLEAR STRUCTURE & THEORETICAL GROUPS INFORMAL SEMINAR/NP DEPT - 1100 hours
15 Jan : Some applications of the Channel Coupling Array Theory for Atomic, Molecular and Model Nuclear Three-Body Systems - Prof. F S Levin/Brown University

MANCHESTER UNIVERSITY

HEP SEMINARS/4th FLOOR SEMINAR ROOM, SCHUSTER PHYSICS LAB - 1600 hours
15 Jan : Direct Lepton Production - G A Ringland/RL.
22 Jan : The $e - \gamma$ Collaboration - R J Ellison/Manchester

THEORETICAL PHYSICS SEMINARS/NIELS BOHR COMMON ROOM - 14.30 hours
14 Jan : Possible Phases of Superfluid ^3He - Dr M J Moore/Sussex
21 Jan : Why Glass is Transparent - Prof. Sir N Mott/Cambridge. NB. This is a Schuster Colloquium at 16.15 in Rutherford Lecture Theatre

DARESBURY LABORATORY

DARESBURY LECTURE SERIES/LECTURE THEATRE - 1400 hours
13 Jan : What's New in Cosmic Rays? - Prof. A Wolfendale /Durham
20 Jan : Direct Channel Resonances in Antiproton Annihilation - Dr M A R Kemp/Daresbury

EVENTS AT AERE HARWELL

THEORETICAL PHYSICS SEMINARS/CONF. ROOM, BUILDING 8.9 - 1415 hours.
16 Jan : Calculations of $e^- + \text{H}$ scattering, mode (d,p) and (d,d) processes, and H^+_2 and H^- bound state properties using Channel Coupling Array Theory - Prof S F Levin/Brown University.
23 Jan : Structure and Thermodynamical Properties of Liquid Metals - Dr R Evans/Bristol
NUCLEAR PHYSICS DIVISION COLLOQUIUM/CONF. ROOM, HANGAR 8 - 15.30 hours.
22 Jan : Old and New - Naturally! - Mr K W Richards/British Gas Corporation.

NIMROD SCHEDULE

CYCLE 1 13.1.76 - 3.2.76

MACHINE PHYSICS

HIGH ENERGY PHYSICS

Team	Beam	Experiment	State
BRISTOL/SOTON/RL	K15a	No 120: K^- differential cross-sections.	Data
CAMB/RL	$\pi 12$	No 114: $\pi^- p \rightarrow \text{K}^0 \Lambda^0$ differential cross-sections and polarisation.	Data
BIRM/SURREY/RL	K17	No 113: Experiments with stopping Kaons.	Data
IMP.COLL/RL	N5	No 168: CP Tests in High Magnetic Field	Installation
RL.	$\pi 11$	No 154: Radiobiological Experiment	Data
OXF/ROME/RL	T1	Test beam facility	Tests
RL.	K18	No 119: $S = -2$ Baryon Resonances using a rapid cycling vertex detector.	Hall I Installation
QMC/RL	K20	No 136: Polarisation in $\text{K}^+ n$ elastic & charge exchange scattering.	Hall I Installation
WESTFIELD/RL	$\pi 13$	No 126: Amplitude Analysis of πp and $\text{K} p$ Interactions	Installation

RUTHERFORD LABORATORY BULLETIN

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LOCAL SUGGESTIONS AWARDS

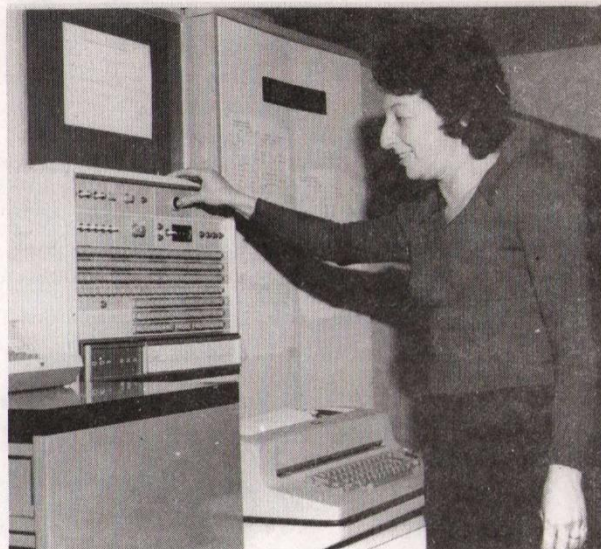
At the 15th meeting of the Local Suggestions Awards Committee held on 17 and 23 October 1975 the

following awards were approved:-

Mr J O Talbot)	Admin	R40 Stores	£10
Mr K Bonfield)	Admin	R40 Stores	£10
Mr J O Talbot	Engineering	R9	£35
Mr J W Emmerson	Engineering	R9	£35
Mr T Morgan	Nimrod	R2	£10
Mr D D Abbley	Nimrod	R2	£40
Mr W G Black	Nimrod	R6	£10
Mr J R Boshier	Nimrod	R8	£20
Mr L W Couling	Nimrod	R51	£500
Mr N R Goddard	Nimrod	R2	£10
Mr A Hudson	Nimrod	R2	£15
Mr A Hudson	Nimrod	R3	£10
Mr F V Macavoy	Nimrod	R52	£40
Mr B J Smith	Nimrod	R3	£40
Mr E G Starr	Nimrod	R6	£10
Mr P J Surtell	Nimrod		

Six encouragement awards were also approved.

Mr F Harris of Nimrod Division was awarded £10 by Daresbury Laboratory Local Awards Committee.



The Laboratory's first satellite computer, the DDP 224 was installed in May 1965. At a brief ceremony on Christmas Eve, it was switched off, thus ending well over 10 years of service.

SALES TO EMPLOYEES Sales of scrap metal/plastics as set out in RLN 12/73 will be made on 16 and 30 January.

FILM BADGE NOTICE It is Period 1. Colour Strip - ORANGE for 8y films and neutron packs. Six monthly dosimeter changes for people with surnames commencing A, B, C and D. Please check that you are wearing the correct dosimeter and that all old ones are returned.

OVERSEAS VISITS Dr J W E Lewis, to ILL Grenoble, 10-18 January, for discussions. Messrs. D A Gray, N M King, G H Rees, M H R Donald and J R M Maidment, to DESY, Hamburg, 11-16 January, to attend PETRA meeting. Mr D E Baynham, to Karlsruhe, West Germany, 12-13 January, to attend GESSS collaboration meeting.

SOCIAL NEWS

RECORD SOCIETY The 1976 season opens on Tuesday, 13 January at 12.40 in the Lecture Theatre with "Get Happy", featuring Tony Bennett with the London Philharmonic Orchestra. This is a recording of a concert to celebrate the 100th anniversary of the Royal Albert Hall. For Tuesday 20 January, at 12.40, there is a change of orchestra and mood. The composer is Elgar and the works to be performed are his "Nursery Suite" and, "Three Bavarian Dances", played by the L.S.O. conducted by Lawrence Collingwood. These Record Society concerts are open to all so why not drop in and relax for a few minutes.

CHRISTIAN FELLOWSHIP All are welcome to a series of Bible Studies in the letter of Paul to the Colossians. These meetings are held each Friday (the first two on 9 and 16 January) at 12.30 in the R12 Conference Room.

LETTER OF THANKS A letter has been received from John Moir who unfortunately broke his leg on 3 October playing football in a lunch-time league match. "Many thanks to all concerned in the Rutherford Lab football section for the present at Christmas - it went down well. Leg coming along fine - should be back sometime in February". Thanks for the letter John, cannot possibly imagine what went down well at Christmas! - Ed.