

21 March - 4 April 1977

NINA in Focus

The exhibition now on display in the foyer of Building R1 was produced to commemorate the tenth anniversary of the first successful acceleration of electrons in NINA, the Daresbury Laboratory's 5 GeV electron synchrotron.

Although the official celebrations were held on 22 December last year the 2nd December was the actual date 10 years previously that the first acceleration was recorded. Almost exactly 3 years before, the Laboratory site was just a green field.

The exhibition which we are now privileged to see was produced by the Daresbury Exhibitions Committee chaired by Neal Marks. The excellent photographs were the work of Arthur Pickett (who joined Daresbury in 1965) and his

assistant, Mike Connolly; Sandy Donnachie and John Thomson selected all the scientific material for the three large HEP panels and among many others who contributed to the final product were past Secretary Harold Rothwell, Brice Halliday a member of the NINA team from the beginning and Shirley Lowndes.

During the ten years, December 1966-1976, NINA pumped beams into experimental targets for some 40000 hours resulting in significant additions to the knowledge of the structure of matter.

Our thanks to the Daresbury Laboratory for the loan of their commemorative exhibition and our congratulations on its excellence.

Rapid Recovery After Near Catastrophe

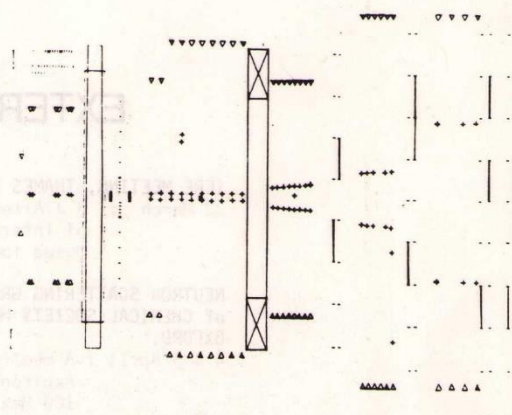
On the night of January 7, a serious fire broke out in the West Experimental Area at the CERN SPS. Electric power did not cut off completely from two large spectrometer magnets after cooling water was shut down, and as a result equipment for two major experiments, as well as the two magnets, suffered major damage.

One of the experiments, code-named WA3, is a collaboration between Amsterdam, CERN, Cracow, Munich, Oxford and RL. Careful inspection showed that apart from the spectrometer magnet, the damage wasn't as severe as had been expected. Spare modules for some pieces of equipment were quickly found, while others were soon rebuilt.

The most serious problem was found to be corrosion, and this had to be quickly neutralised. Practically the entire spectrometer was taken apart, cleaned with special chemicals, and then put back together. Although this work took only four weeks to complete, it involved a total of four man-years of effort!

So by February 18, the experiment was fully re-equipped and ready to run. With hundreds of counters, 40 giant spark chambers and two mighty Cerenkov detectors all to take care of, it took a few more days to sort out cabling faults and to get the experiment re-aligned, but by February 21, the whole experimental system was in action - including some components which hadn't even been installed at the time of the fire!

Before this experimental run ended, the collaboration recorded details of about 100,000 'events' on magnetic tape. The experimental group now hopes that this dramatic recovery so soon after a near-catastrophic accident means that the WA3 experiment will go on to be a very fruitful one.



Typical two-prong trigger photograph from the WA3 experiment. The particle tracks as seen in the spark chambers are indicated as ++++++. The rectangular areas are the two spectrometer magnets and the vertical lines show the position of scintillation counters and Cerenkov detectors.

INTERNAL EVENTS

NIMROD LECTURE SERIES

HEP SEMINAR

Wednesday 23 March
1100
R61 Conference Room

There is no lecture on Monday 21 March in this series.

A Model of Quark Confinement:- QCD in Two Dimensions.

C Sachrajda/CERN

LASER DIVISION SEMINAR

Wednesday, 23 March
1500
R61 Conference Room

Lasers in Optical Microscopy

Dr D Walsh/Dept. of Engineering Science, U. of Oxford

RUTHERFORD LABORATORY LECTURE

Thursday 24 March
1515
Lecture Theatre

Oscillations of the Sun

Dr G R Isaak/Dept. of Physics, U. of Birmingham

An account will be given of the discovery of oscillations of the Sun and of their possible implications in Physics and Stellar Astronomy.

NIMROD LECTURE SERIES

Monday 28 March
1130
Lecture Theatre

Title to be announced

Dr H Fritzsch/CERN

HEP DATA HANDLING GROUP SEMINAR

Wednesday 30 March
1330
R12 Conference Room

A Magnetic Field Design Program for Fusion Experiments

T J Martin/Culham Laboratory

The high cost of major fusion experiments necessitates extensive (but relatively inexpensive) computations to optimise the many aspects of a proposed design before a commitment is made to build the hardware. In this talk, an interactive computer program is described which fulfills many of the needs of physicists and engineers in the preliminary stages of the magnetic containment design, and indeed provides computational support throughout the operational life of the apparatus.

HEP SEMINAR

Thursday 31 March
1130
R61 Conference Room

Recent Work on High P_T Hadron Physics

P V Landshoff/DAMTP, Cambridge

NIMROD LECTURE SERIES

Monday 4 April
1130
Lecture Theatre

Hadron Fragmentation at High Energy and Quark Constituents

W Ochs/Munich

EXTERNAL EVENTS

IERE MEETING, THAMES VALLEY SECTION/READING U. - 1930 hrs.

22 March : A J Allen & P Atkinson/Reading - Development of interactive computer aided design of dosed loop control systems.

NEUTRON SCATTERING GROUP OF I of PHYS. & FARADAY DIV. of CHEMICAL SOCIETY MEETING/INORGANIC CHEMISTRY LAB., OXFORD.

4 & 5 April : A meeting to review experiments using neutrons with incident energies above 100 MeV.

(further details from the Editor).

THEOR PHYS. SEMINARS/CONF. RM., B 8.9, AERE - 1415 hrs.

25 March : Dr D G Pettifor/Camb. - The roles of s and d electrons in transition metal bonding.

1 April : Prof A S Nowich/Columbia U, N.Y. - Conductivity and dielectric relaxation of anisotropic crystals.

FILM BADGE NOTICE

Period 4 commences Monday 21 March. Colour Strip - BROWN for B_γ films and neutron packs. Please change your dosimeter promptly.

Six monthly TLD change for people with surnames commencing M,N,O & P.

MISSING EQUIPMENT

The following item of equipment has been reported missing from the optics lab, building R25:-

Septac lens RL No. 005184, Ser. No. 1311973

Anyone with information on the present whereabouts of this item is asked to contact Mr W Turner, R25, Ext. 286.

OFFICE MOVES
- BUILDING R1

The Laboratory Post Room is now located in Room G-93, near the Computer Hall area on the East Wing ground floor. The R1 Messenger's Room, G-94, is adjacent to the Post Room. Both telephone numbers remain unchanged.

HORTICULTURAL SOCIETY
OUTING

A visit to the 1977 Chelsea Flower Show to be held this year in mid-May is a must for all keen gardeners. A coach will leave the Rutherford Police Lodge at 8.45 am on Thursday 19 May, stop at Windsor for about 75 minutes for coffee, leave Windsor and proceed directly to Chelsea, arriving about 1.00 pm. The coach will depart from Chelsea at 6 pm and go to Ye Hart & Garter Hotel (a Schooner Inn) at Windsor for a meal which is booked for 8 pm. Home about midnight. Cost £2.50 (incl. coach and discount on entrance). Val Goodwin, Ext. 6256 for further information and bookings.

OVERSEAS VISITS

Dr D H Saxon, to Hamburg, 20-22 March, to attend proposal 190

collaboration meeting.

Dr D E Baynham, to the USA, 20-30 March, to attend 'workshop' at SLAC and to visit FNAL, MIT & BNL.

Mr A R Mortimer & Mr W T Smith, to DESY, Hamburg, 21-23 March, for design discussions on DESY experiment - JADE. Dr M G Albrow, to CERN, 21-24 March, for discussions and to attend ISRC meeting.

Dr S F J Read, to CERN, 22-28 March, for discussions on polarized target materials.

Messrs K Green, A I Kilvington & A G D Payne, to ILL, 22-31 March, to set up neutron lifetime experiment.

Dr M Edwards, to CERN, 22 March - 2 April for testing of drift time recorder system for EMC.

Dr C Comber, to CERN, 25-30 March, to attend collaboration meetings.

Dr G E Kalmus, to CERN, 27 March - 7 April, to attend various meetings and carry out experimental work.

Dr L C W Hobbs, to ILL, 30 March - 1 April to attend subcommittee meetings.

Dr J B Forsyth, to ILL, 1-13 April, to carry out approved experiment on D3.

Dr C M Fisher, to CERN, 3-7 April, to attend EHS Physics Workshop.

Dr D B Thomas, to Bratislava, 4-6 April to attend meeting of International Organising Committee, 6th Int. Conf. on Magnet Technology.

CHRISTIAN FELLOWSHIP

Friday, 1 April - Prayer Meeting. All are welcome to attend - R12 Conference Room, at 12.30.

Obituaries

We deeply regret to announce the death of Mrs M J Buckel on Sunday 13 March. She was aged 55. Joyce Buckel joined the Laboratory as a messenger in December 1973 and worked in a number of buildings. Her cheerful nature and helpful manner earned the respect of all who knew her and she will be sadly missed.

We extend our deepest sympathy to her husband and three children.

A few days before we heard of the death of Mr H Cooper on Tuesday 8 March after a short illness. He was aged 59. Harold Cooper, a member of the AERE Grounds Department since 1955, he worked full time for the past 12 years at the Rutherford Laboratory. Although a quiet anassuming man his was a familiar figure especially during the summer months when he was responsible for mowing the steep banks of the mound using a 'flymo' remotely controlled byropes.

We extend our deepest sympathy to his relatives.

News has been received of the sudden death early on Wednesday morning, 16 March, of John Roan. He was aged 48. John had taken premature retirement at the end of April 1976 to retire to his cottage in Lynton after working at the Laboratory for 21 years. It appears that John died peacefully in his sleep. We extend our deepest sympathies to his wife Connie.

Old friends who wish to know the date of the funeral should contact the Editor on Ext. 484.

EXTERNAL EVENTS

RUTHERFORD LABORATORY BULLETIN . Published by the Scientific Administration Group

Deadline for
Insertions

1000 hours Tuesday 29 March.

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