No 21/71
7 JUNE 71

Rutherford Laboratory Bulletin

General News

OBITUARY NOTICE - We deeply regret to announce the death of Mrs D J Wolton on Monday 31 May after a long illness. She was aged 44.
Doreen Wolton came to the Laboratory in June 1968 and worked as a Scanner in the Spark Chamber Film Analysis Group. She will be sadly missed by her many friends and colleagues.
Our deepest sympathy is extended to her husband and two children.

LIBRARY NOTICE - Copies of 'Wireless World' intended for the PLA Library are disappearing shortly after being put on display. In future, copies will be held by Mr D Jones, Lab 19, R12 and will only be available against a signature.

MISSING EQUIPMENT - The following item of equipment has been reported missing from R36:-

Tektronix Type 82 Plug-in Amplifier Ser.No.5798
Avometer Ser.No. 55729-36

Anyone with information on the present whereabouts of these items should contact M J Cawthraw, R36, Ext 6186.

The following item has been reported missing from R2:-

Norma Multirange AC/DC Chart Recorder
Ser.No. 1434812, Loan Pool No 1494

Anyone with information on the present whereabouts of this item is asked to contact Mr J Ayres, R2, Ext 6230.

OVERSEAS VISITS - Mr M J Cawthraw to Vienna and Geneva, 6 - 11 June to attend Camac Software Working Group Meeting in Vienna and for discussions with RHEL teams at CERN.
Messrs L Phillips, K Freeston, M Randle and N D Gomersall, to CERN on 6 June for installation of equipment on ISR and pp experiments.
Dr P R Williams and Mr J F Ayres, to CERN on 7 June for one and two days respectively, to take Bubble chamber Target to CERN and for discussions.
Mr P Wilde, to Vienna, 8-11 June to attend Camac Software Working Group Meeting.
Mr P D Hey and Mr B F Colyer to the Institut fur Experimentelle Kernphysik, Karlsruhe, 10-11 June to discuss materials data and research for superconducting synchrotrons with Dr Brechna.

FILM NOTICE - It is Period 6. Colour Strip - ORANGE for βγ and fast neutron packs. Please check that you are wearing the correct films. Next film badge change, Monday 14 June.

Machine Schedules

NIMROD Cycle 7 (8.6.71 - 29.6.71)
Machine Physics
High Energy Physics

Team	Beam	Experiment	
Westfield Coll/RHEL	X3/π8	Measurement of the Asymmetry of Eta Decay	Data
Bristol U/RHEL	X3/K15	K^+p Differential Cross-Sections from 1.07-2.0 GeV/c	Data
RHEL	X3/π11	Low Momentum Pion Beam Studies	Setting up
Glasgow U/RHEL	X3/π9	Polarisation Measurements for $\pi\bar{p}$ Charge Exchange Reactions (0.6 - 3.5 GeV/c)	Setting up
Cambridge U/RHEL	X2/K13C	Associated Production Measurements between Threshold and 1.5 GeV/c	Setting up
B'ham U/RHEL	X2/K12A	$K^{\pm}n$ Elastic Scattering and K^+ Charge Exchange from 0.45 - 0.95 GeV/c	Setting up
Oxford U	K10S	Study of Neutral States in K^-p Reactions	Setting up
Surrey U/B'hamU/RHEL	π10	Total Reaction Cross-Sections for Pions on Nuclei	Data
RHEL	P71	Apparatus Development	Data

Internal Events

Mon, 7 June, 11.30 am., Lecture Theatre	Nimrod Lecture Series	Dr R G Roberts (RHEL)	Report on Helsinki Conference
Wed, 9 June, 11.00 am., Conf.Rm. Building R1	HEP Disc Group	Dr E Groves (RHEL)	A Missing Mass Spectrometer Survey of I=0,1 Mesons from 0 to 1.2(GeV/c)^2

Mon 14 June, 11.30 am., Lecture Theatre	Nimrod Lecture Series	Prof. L Montanet (CERN)	Recent Progress in Meson Resonances as Observed in $p\bar{p}$ Annihilation.

External Events

Tues.,8 June 2.30 pm., Nucl.Phys.Lab.Oxford	Nucl.Phys.Seminar	Dr H A Thiessen (Los Alamos)	LAMPF (Los Alamos Meson Factory) Facilities and Their Use
Thues,8 June 7.45 pm., Univ of Reading	British Computer Society	Reading Branch Annual General Meeting	
Wed, 9 June 2.30 pm., Univ of Manchester	Theor.Phys.Seminar	Dr D Firth (Manchester)	Coupling of Acoustical and Structural Vibrations
Thurs,10 June, 4.15 pm., Clarendon Lab., Oxford	Theor.Phys.Seminar	Dr D Sciama	Green Functions in General Relativity
Thurs 10 June, 8.30 pm., Nucl Phys Lab Oxford	Seminar in Elemt,Part. Phys.	Dr R Maybury and Dr A Segar	The KIOS Experiment: $K^- + p \rightarrow$ Neutrals
Fri.,11 June, 2.30 pm., Clarendon Lab Oxford	Elemt Part. Theory Seminar	Prof S J Brodsky (SLAC, visiting Sussex)	$\gamma\gamma$ Reactions

Social News

HORTICULTURAL SOCIETY VISIT - Owing to the bad weather, the visit to the Nuneham Courtney Arboretum arranged for Thursday 27 May had to be postponed. It will now take place on Wednesday, 9 June. Arrangements as before; i.e. Members and friends wishing to attend should meet at the 'Peacock Gate', which is the first large gate on the left on entering the village of Nuneham Courtney from the South not later than 7.30 pm. As before the tour will be led by Mr K Burras, Director of the Oxford Botanic Gardens. Further information from the Editor.

SIX-A-SIDE FOOTBALL - Fri., 21 May. R18 v Nimrod. This game lived up to all expectations both for pace and football content. Both teams had an undefeated record in the league at stake. R18 went ahead in the first minute but Nimrod soon hit back and the equaliser came through Vic Wise, showing his best form to date. He linked well with John Mackerness making a dangerous pair of strikers the R18 defenders Arthur Braham and Less Patton found difficult to contain. On the other hand the Nimrod defenders, Harry Jarvis (Captain) and Bob McClure always had the measure of Jeff Bizzel and Jim Taylor. Gavin Shand had a good game for R18 and George Pullinger for Nimrod was always able to win the ball in the air against the R18 forwards. On this form Nimrod were unbeatable and the better footballing side won the day. Result:- R18 - 3, Nimrod - 5.

Wed, 2 June. Atlas v Transport.
A very good game with Transport leading 2 - 1 at half-time. In the second half Atlas came back with a vengeance and in spite of some good goalkeeping by Ray Smith, scored 7 goals to run out winners by 8 - 2.

Rutherford Laboratory
4 6 71

H F Norris Ext 484
Scientific Admin. Group
Building R20

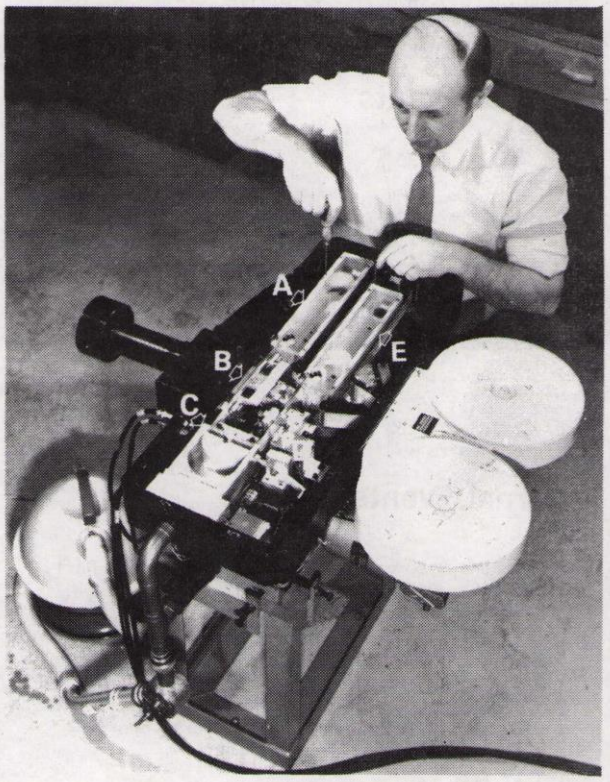
No 22/71
14 June 71

Rutherford Laboratory Bulletin

General News

PICTURES GALORE

An interesting development has taken place at the Rutherford Laboratory in the field of spark chamber cameras, which should result in time saving on NIMROD, a very important factor. The problem was to increase the picture taking rate of a camera designed some four years ago, from one single picture on demand during each accelerator cycle to a maximum of four pictures on demand during each flat-top period of the Nimrod acceleration cycle, which is of the order of 500 milliseconds at a repetition rate of 22 c.p.m. The original vacuum operated camera had proved to be very reliable, taking some half million pictures on the KI3 experiment although limited to one shot per pulse (camera operating speed, once every 600 millisecs). Much faster times can be achieved by using perforated film driven by sprockets (as in a 35 mm hand camera). The main disadvantage is that perforated film reduces the picture taking area with a resultant loss of precision. The vacuum system which has been retained is similar to that used on computer tape decks and the film measuring machines such as H.P.D.'s and Cyclops where the speed requirements are slow compared with the camera.



LEN GOODALL IN A CONTEMPLATIVE MOOD

A single explanation of the modifications and operation of this camera may be of interest to readers. Referring to the photograph it can be seen that the two film cassettes of approximately 10" diameter are mounted on the rear of the camera. The sequence of events is as follows:-
1. Film, in the form of a loop is drawn into vacuum chamber (A). 2. When the spark chamber fires, a photograph is taken of the event (no shutter on this camera, film only exposed to sparks). The firing also sends a pulse to the electronic control system of the camera. At this point, the first modifications have been made as the relay operated logic of the original control system has been discarded in favour of integrated circuits which are much faster and more robust. 3. The pulse via the control system sets off a chain of events in the following order: the film gate clamp (B) is released and the second and smaller chamber (C) is switched to vacuum which pulls the exposed film through the gate (approx ½ of the film in the loop), the film gate (B) is relocked, a second film clamp (D) is released, the second chamber let up to air, third vacuum chamber (E) pulls film from second chamber, second film clamp relocked, camera now ready for next photograph. This complete operation taking 100 milliseconds can be repeated up to 4 times per Nimrod flat-top period. At the end of each period, the film which has accumulated in the third chamber (E) is rewound on to the take-up spool in the cassette and a further length is drawn off from the feed spool in the other cassette to replenish the first vacuum chamber. Mechanical modifications in the camera itself occur on the film clamps where air operated systems have been replaced by rapid direct acting solenoids, and in the second vacuum chamber where a rotary vacuum valve has been replaced with a fast acting, small stroke poppet valve. The vacuum is supplied by a standard domestic vacuum cleaner. Only the main modifications have been described but obviously many minor changes had to be made.

The small team concerned, Brian Edwards and Len Goodall, who had the assistance of some consultations with other members of staff, are to be congratulated on this development. The camera has already satisfactorily completed preliminary tests operating at 4 shots per 400 milliseconds (it sounds like a burst of machine gun fire) and after further tests will be used initially on an experiment studying the reaction $\pi^- p \to \Lambda^0 K^0$.

FILM NOTICE - Period 7 commences Monday, 14 June. Colour Strip - GREEN for βγ and fast neutron packs. Please change your films promptly and return all old ones.

SCIENTIFIC ADMIN NOTICE - Storage space is available in Building R38 for the storage of display panels, art work and stands. Anyone wishing to store such items should contact F Harden, R20, ext 6114, who will keep a record.

VISITORS - Thirty Sixth Form students from Millfield, Street, Somerset will visit the Laboratory on Saturday, 19 June.

ROWSTOCK CROSS-ROADS TRAFFIC LIGHT DELAYS - The Ministry has put in fixed cycle timing which they admit is wrong. This will be changed to a traffic actuated system in about four weeks time.

LOST PROPERTY - A sum of money has been found in the Rutherford Laboratory grounds. Will the owner please contact Mr J Marshall, Building R1, Ext 6693.

OVERSEAS VISITS - Mr D Morgan, to Poland, 12-16 June, to lecture at Cracow School of Theoretical Physics. Dr I F Corbett to CERN, 13-17 June, to attend Omega Resident Group Meeting. Mr J A Hawthorne and Mr H A James, to CERN, 13-25 June, for installation work on ISR. The Director, to Stuttgart, 14-15 June, to attend Executive Committee of European Physical Society. Mr J T Delury, to the USA., 14-18 June, to attend experimental review of Nimbus E Satellite at Philadelphia. Dr I Butterworth, to CERN, 15.16 June, to attend Track Chamber Committee Meeting. Messrs N M King, G H Rees, C W Planner

and J R M Maidment, to CERN, 16-18 June to attend meeting of GESSS Machine Design Working Group and for discussions.

Machine Schedules

NIMROD CYCLE 7 (8.6.71 - 29.6.71)
Machine Physics; High Energy Physics (X3/π8, X3/K15, X3/π11, X3/π9, X2/K13C, X2/K12A, K10s, π10 & P71)
Full details of Cycle 7 were given in Bulletin No 21/71

Internal Events

Mon.,14 June,11.30 am., Lecture Theatre	Nimrod Lecture Series	Prof. L Montanet (CERN)	Recent progress in Meson Resonances as Observed in pp Annihilation
Wed., 16 June., Conf.,Rm., R12., 10 am - 4 pm., - Demonstration by Wayne Kerr and Smith's Industries of Servoscribe recorders, Multimeters, Bridges and various other precision instruments. Further information from the Editor.			
Wed., 16 June, 11 am., Conf.,Rm.,R1	H E P Disc Group	Dr H Nielson (RHEL)	Low Energy π-N Interaction
Thurs.,17 June, 11.30 am., Lecture Theatre	Special Nimrod Lecture	Dr A Staude (CERN)	Recent Results from the I.S.R.
Fri.,18 June.,11 am., Conf.,Rm.,R12	Seminar in Computing	Dr M R Jane (RHEL)	On-Line Computers for the CERN Ω Project
Mon.,21 June.,11.30 am., Lecture Theatre	Nimrod Lecture Series	Dr C Llewelyn-Smith (SLAC)	Neutrinos as a Probe of Hadron Structure

External Events

Mon.,14 June,8.30 pm., Nucl.Phys.Lab.Oxford	Seminar in Elemt Part. Phys.	Prof T Ferbel (U. of Rochester)	(I) Search for Exotic Mesons (II) Studies of Inclusive Reactions.
Wed.,16 June.,2.30.pm., U of Manchester	Theor Phys Seminar	Dr M A H McCausland (Manchester)	Hyperfine Interactions in the Rare Earth Metals
Thurs,17 June, 4.15 pm., Clarendon Lab.,Oxford	Theor Phys Seminar	Dr M Baranger (M.I.T. & Sussex)	Is there a Microscopic Theory of Nuclear Phenomena?
Fri.,18 June.,2.30 pm., Clarendon Lab.Oxford	Elemt.Part.Theory Seminar	Dr D Greenberger	The Principles of Equivalence Versus Quantum Mechanics
EVENT AT AERE			
Tues.,15 June.,2 pm., Lecture Rm.,Bldg 8.9	Theor.Phys.Seminar	Dr W Fawcett (RRE Malvern)	Hot Electron Distribution Functions and Transport Properties in Semi-Conductors.

Social News

S.R.C. SPORTS DAY - 30 June at Chiswick Sports Ground.
Activities:- Cricket, Six-a-side football, Tennis (Mens Doubles & Mixed Doubles), Bowls, Netball, and Chess plus Social in the evening. Anyone interested, please contact:-

P Craske (Ext 232) - Cricket	R M McClure (Ext 232) - Football
N Ferguson (Ext 438)- Bowls	R O Butt (Ext 530) - Tennis
Mrs M Stoker(Ext 525)- Netball	A S Gilby (Ext 541) - Chess

For further information see General SRC Circular 22/71. Names to be in by 21 June at the latest.

CSMA OXFORD GROUP - Sunday 20 June - An afternoon tour of colleges in Oxford, cost 20p each.

Sunday, 27 June. - A motoring gymkhana at the Green Jackets TA Centre, The Slade, Oxford at 2 pm. No timed tests. Entry 25p. Light refreshments available. Come and take part or just watch. Details of both events from L N Dutton, R25, Ext 224.

CHRISTIAN FELLOWSHIP - Fri., 18 June, R12 Conf. Rm., at 1230 pm. All welcome.

HORTICULTURAL SOCIETY - SUMMER SHOW 8 & 9 July. Schedules are now available and can be obtained from Mrs W M Dance R1 Ext 418 or the Editor.

Rutherford Laboratory
11-6-71

H F NORRIS Ext 484
Scientific Admin Group
Building R20

SAW

No 23/71
21 June 71

Rutherford Laboratory Bulletin

General News

MR W WALKINSHAW OBE Congratulations to Mr W Walkinshaw, Head of the Computing and Automation Division, on the award of the Most Excellent Order of the British Empire in the Queen's Birthday Honours.

DEAD-LINE SUCCESSFULLY MET - On Friday 11 June, the installation of the $\bar{p}$-p experimental equipment was completed at CERN enabling the scientific experiment to commence taking beam that evening.

This experiment co-ordinated by Dr Alan Astbury is a combined Rutherford/Daresbury experiment studying anti proton scattering on protons and annihilation into two pions or two kaons.

The equipment essentially is a large spectrometer, approx. 150 tons, rotating in a horizontal plane about a fixed point, the Hydrogen Target. Scattered particles are deflected by a 125 ton magnet and detected by banks of large wire spark chambers.

This opportunity is taken to thank those members of the Laboratory that contributed to this first phase of making up this large item of experimental equipment, especially that it was completed exactly on time as scheduled many months previously.

For further details on the apparatus see pp 84-87, The Work of the Rutherford Laboratory 1970 issued a few days ago.

FILM NOTICE - It is Period 7. Colour Strip - GREEN for βγ and fast neutron packs. Please check that you are wearing the correct films and that all old ones are returned.

LIBRARY NOTICE - The Library use small round wheeled steps, called a 'KIKSTEP' one of which has been reported missing. Although most useful to the Library staff someone must think they are of value elsewhere as this is the second to vanish within 6 months.

OVERSEAS VISITS - Mr P Mackay, to CERN 20 June for a short visit to test work on ISR Spark Chambers and Gas Circulating System. Dr L C W Hobbis to Grenoble France 23-25 June for discussions on HFBR project.

Machine Schedules

NIMROD Cycle 7 (8.6.71-29.6.71)
Machine Physics: High Energy Physics (X3/π8, X3/K15, X3/π11, X3/π9, X2/K13C, X2/K12A, K10s,π10, and P71)
Full details of Cycle 7 were given in Bulletin No 21/71.

Internal Events

Mon 21 June 11.30 am Lecture Theatre	Nimrod Lecture Series	Dr C Llewelyn-Smith (SLAC)	Neutrinos as a Probe of Hadron Structure
Wed 23 June 11 am Conf Rm R1	HEP Disc Grp	H Nielsen (RHEL)	Low Energy π-N Interaction
Thurs 24 June 11.30 am Lecture Theatre	Special Nimrod Lecture	Dr J P Merlo (SACLAY)	Measurements of A and R Parameters at High Energies

No lectures have been arranged in the Nimrod Series on Mondays, 28 June and 5 July.

External Events

Daresbury Summer Lecture Series for Pedestrians. Series 1 "Introduction to the Analysis of Two-Body Reactions at High Energies", by J Storrow.
Mon 21 June - Fri 25 June at 11 am every morning in the Lecture Theatre
1. Regge Poles : Why and How
2. Simple Models for Regge Cuts
3. Finite Energy Sum Rules, Duality and Exchange Degeneracy
4. Simple Phenomenological Applications.

Thurs 24 June 8.30 pm Nucl Phys Lab Oxford	Seminar in Elemt Part Phys	Prof D Lichtenberg (Imp Coll, on leave from Univ of Indiana)	Direct Channel Model of Pion-Nucleon Scattering

Fri 25 June 2.00 pm Univ of Southampton	Surface Physics Group	Dr R K Firch (Aston Univ)	Vacuum Applications of an Electrostatic Charged Particle Oscillator
EVENT AT AERE			
Tues 22 June 2.00 pm Lecture Rm Bldg 8.9	Theor Phys Seminar	Dr M Moore (Oxford Univ)	Applications of Some Results of Field Theory to Phase Transitions.

Social News

CHRISTIAN FELLOWSHIP - Everyone welcome to the meeting which commences at 12.30 pm on Friday 25 June in the R12 Conference Room.

* * * * * * *

TAIL PIECE Overheard in one of the corridors -

Admin Officer ....."and the R100(airship) had a total capacity of 1.15 million cubic feet of gas"

Tech Officer .... "That's about half the capacity of an Admin Officer."

Rutherford Laboratory
18 6 71
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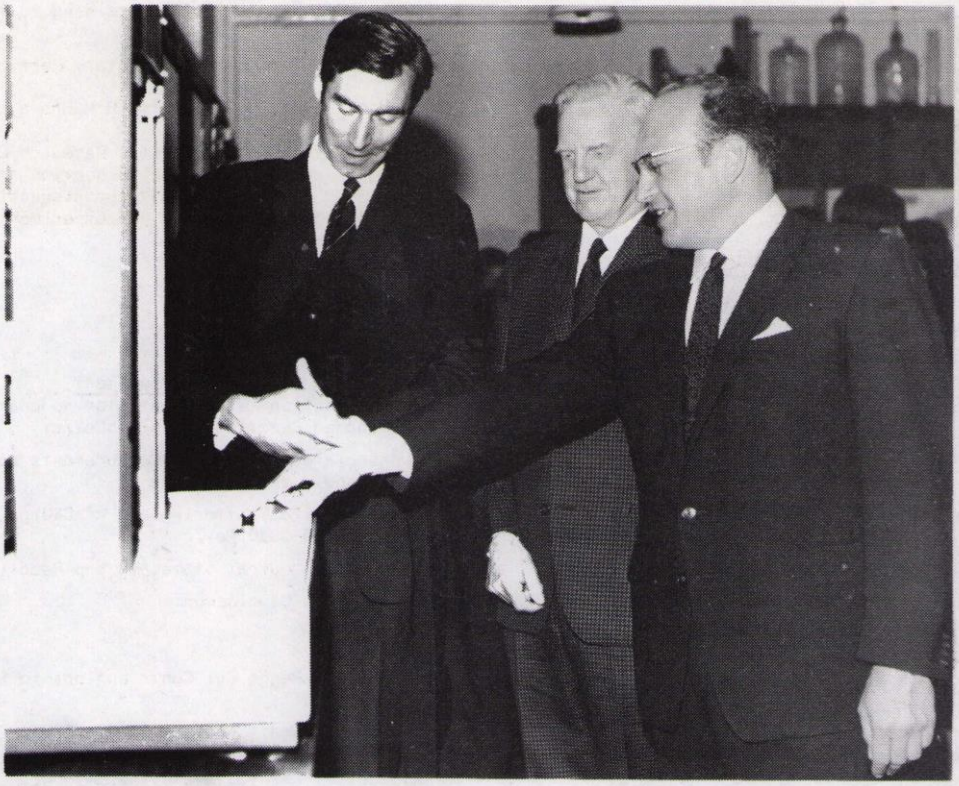
Building R20

No 24/71
28 Jun 71

Rutherford Laboratory Bulletin

General News

GIFT TO ABINGDON SCHOOL



'Cutting the ribbon'

l. to r. - The Headmaster
Mr Bowles and Mr Zahler

On the morning of Wednesday, 23 June, Mr G G Zahler, the Managing Director of Instron Ltd, presented to Abingdon School the prototype of their new Model 1026 Tensile Testing Instrument, valued at £1,500. After expressing his great pleasure in being able to make the presentation, Mr Zahler spoke of the liaison between the Rutherford Laboratory and the School which prompted Instron to make the gift. He felt sure it would stir further interest and make work in the School's Physics Lab more stimulating and profitable. He concluded by assuring the assembled boys that if they found any faults or were able to make any improvements to the instrument, he would be delighted to know.

Mr W E K Anderson, the Headmaster, in receiving the gift on behalf of the School, expressed his gratitude to Instrons for their generosity, pointing out how much the collaboration programme with the Rutherford Laboratory and the acquisition of the instrument meant to the School. He said that in his experience, no school would make better use of it as the standard of science was exceptional. The gift did however pose one big problem - that of crowd control on Founders Day! He admitted that with the collusion of Brian Woolnough, the Physics Master, he had sneaked in and tried it in the dead of night.

Professor W D Allen, after expressing his thanks to Instron Ltd, spoke of the collaboration programme and its mutual benefit both to schools and to the Rutherford Laboratory.

After the presentation, guests from the Rutherford Laboratory and Instron Ltd, together with members of the teaching staff, were invited to the Headmaster's house for coffee.

VEHICLES ON AUTHORITY-OWNED ROADS Attention is drawn to the following notice which is appearing in the Harwell Bulletin.

The roads serving the Chilton, Aldfield and North Drive Estates and the shopping centre are unadopted private roads belonging to the Authority. At the same time they are held by the Thames Valley Constabulary to be 'roads' within the meaning of the Road Traffic Acts. This view has recently been confirmed by a decision of the Wantage Magistrates Court in which a fine was imposed for "having no certificate of insurance" and "having no vehicle test certificate". Drivers and vehicle owners using the Authority's roads, both within and outside the security fence, are therefore advised to treat all these roads as if they were public highways.

Harwell Notice 58(6) requires that all vehicles used on the roads of the Establishment must have a current licence under

the Vehicles (Excise) Act and must at all times be driven in conformity with the Road Traffic Acts. Vehicles must be safe mechanically, where appropriate have been tested by an authorised examiner and issued with a test certificate, must be fully covered by third party insurance and must be driven with due care and consideration. Road signs, including the 30 miles an hour restrictions, must be complied with at all times.

FILM NOTICE It is Period 7 Colour Strip - GREEN for βγ and fast neutron packs. Please check that you are wearing the correct films and that all old ones are returned.

MISSING EQUIPMENT The following item of equipment has been reported missing from Experimental Hall 1, since March 1971:-

Plus-light and lens

Anyone with information on the present whereabouts of this item is asked to contact Mr R Elliott, Bldg R1, Extn 425.

SCIENTIFIC ADMIN NOTICE For the next 2 weeks contributions and matters apertaining to the Bulletin, also Lecture Theatre bookings etc should be sent to Mr F Harden, R20, Extn 6114.

OVERSEAS VISITS The following will attend the Amsterdam Conference on Elementary Particles during the period 29 June - 7 July:-
The Director, Drs G Manning, D Morgan, R J Phillips, N H Lipman, R G Roberts, R M Brown, R J Homer, P J Litchfield, D P Owen, I Butterworth and J J Thresher.
The Director will also visit Geneva to attend a meeting of the Nuclear Physics Research Committee and Dr Lipman will attend an Omega Meeting at CERN. Mr P R Pitts to CERN 27 June - 7 July for inspection and testing of scintillation counters used in the ISR experiment. Dr J D Lawson to CERN 27 June - 9 July for discussions. Dr J J Phelan to Paris and CERN on 28 June for a short period for discussions etc on the 14 GeV/c K^-p experiment.

Machine Schedules

NIMROD Cycle 8 (29 6 71 - 20 7 71)
Machine Physics
High Energy Physics

Team	Beam	Experiment	
Glasgow U/RHEL	X3/π9	Polarisation Measurements for πp charge Exchange Reactions (0.6-3.5GeV/c)	Setting up
RHEL/Cambridge U	X2/K13C	Associated Production Measurements between Threshold and 1.5 GeV/c	Setting up
B'ham U/RHEL	X2/K12A	$K^{\pm}n$ Elastic Scattering and K^+ Charge Exchange from 0.45-0.95 GeV/c	Data
Oxford U	K10s	Study of Neutral States in K^-p Reactions	Setting up
RHEL	P71	Apparatus Development	Data

Internal Events

Fri 25 June 2 pm Lecture Theatre	Special Lecture	Prof C Quigg (Stony Brook)	Regge Cut Contributions to Forbidden Reactions
Mon 28 June 11.30 am Lecture Theatre	Special Lecture	Dr J Litt (CERN)	Small Angle Proton - Proton Scattering - the ISR Results
Wed 30 June 11 am Conf Rm R1	HEP Disc Group	Dr C J S Damerell (RHEL)	K^+p Elastic Scattering Between 432 and 940 MeV/c
Fri 2 July 11 am Lecture Theatre	Seminar in Computing	J L Swartz (MIT)	Computer Generated Films in Quantum Mechanics and Electrodynamics

External Events

Mon 28 June 2.30 pm Clarendon Lab Oxford	Elemt Part Theory Seminar	Dr L Caneschi (Stanford)	Multiparticle Production Processes
Mon 28 June 5 pm Univ of Bristol	Phys & Geo-Phys Colloq	Prof P V Hobbs (Dept of Atmospheric Sciences, Univ of Washington Seattle)	Splashing of drops: Hydrodynamics and Charge Separation
EVENT AT AERE Tues 29 June 2 pm Lecture Rm Bldg 8.9	Theor Phys Seminar	Dr R E Turner (Univ of Sussex)	The Theory of Ferromagnetic Dilute Alloys

Social News

HORTICULTURAL SOCIETY NEWS A visit has been arranged to Mattocks Rose Nursery, Nuneham Courteney on Tuesday 29 June. Members and friends wishing to go should meet at Mattocks Nurseries at 7.30 pm.

Schedules for the Annual Summer Flower Show on 8-9 July, are available from Mrs W M Dance, Bldg R1.

Rutherford Laboratory
25 6 71

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