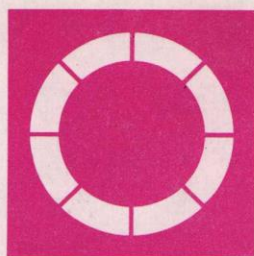


No 1/71
4 Jan 71



Rutherford Laboratory Bulletin

General News

GROUNDS SUPERINTENDENT RETIRES - Mr A E Burge, MBE, retired as Grounds Superintendent Harwell on 31 December 1970. He came to AERE Harwell over 20 years ago after spending 32 years in the London Parks. His last position in London was in charge of St James' Park; he was incidentally responsible for laying out the Roosevelt Memorial Gardens after the last war. At the Staff Meeting on Thursday, 17 December, the Director, Dr Stafford made a presentation to Arthur. In wishing him a happy retirement Dr Stafford remarked on the wonderful job Arthur had done at the Laboratory on a soil which is very shallow and poor. Arthur wishes to express his sincere thanks for the many good wishes he has received both at the presentation and since.

On the following Tuesday evening the Horticultural Society gave a cocktail party in his honour in the Coffee Lounge R22 at which a number of presentations were made including a garden chair from the Society and a silver tray from the past and present members of the committee. However the biggest surprise of the evening came when the President of the Society, Dr Nigel Douglas presented Mr Burge with the silver gift medal of the Royal Horticultural Society for services to the AERE Horticultural Society over the past 20 years. One should add for the benefit of the non gardening readers that the Royal Horticultural Society's silver gift medal is only awarded in cases of real merit and it is fine tribute to a man who has, under very difficult conditions, done so much to create both at Harwell and at the Rutherford Laboratory beautiful surroundings from which we all benefit.

Arthur may be retiring but from a little eavesdropping at the party it is obvious he is still going to be in great demand and we all wish him many happy years of gardening to come.

SPECIALIST SHORT COURSES - Reading College of Technology are proposing to run a series of evening courses beginning January on the following subjects: Computer Programming in Algol; Electric Drives; Electronics for Mechanical Engineers part II; and Integrated Circuits. Further details from Training Section, R20, Ext 555.

LOST - a brooch, at the Horticultural Society cocktail party held in the Coffee Lounge, R22, on Tuesday 22 December 1970. Would the finder please contact D J King, RRD 521 Tel 72/5021.

FILM NOTICE - Period I for 1971 commenced on 29 December 1970 Colour Strip - RED. Please check that you are wearing the correct films and that old ones are returned.
6 monthly T L D change for people with surnames commencing A.B.C.D.

Internal Events

Mon, 4 Jan - Wed, 6 Jan Lecture Theatre. Informal Theoretical Physics Meeting.

The programme is as follows:-

Mon, 4 January

14.00 - 15.30
16.00 - 17.30

K. Gottfried (CERN)
G Ringland (RHEL)

The Nucleus as a Platform for Elementary Particle Experiments.
Dips, Bumps and Cuts.

Tues, 5 January

9.45 - 11.15
11.45 - 13.15
14.15 - 15.45
16.15 - 17.45

J Allaby (CERN)
R Eden (Cambridge)
T T Wu (D E S Y)
R Roberts (RHEL)

Recent Results in High Energy Scattering
Asymptotic Collisions
The World at Extremely High Energies
How is the Pomeron?

Wed, 6 January

9.45 - 11.15
11.45 - 13.15
14.15 - 15.45
16.15 - 17.45

M Kuglar (Weizmann Institute)
D Sutherland (Glasgow)
H Osborn (Glasgow)
A Martin (CERN)

Duality
Bumps and Dips in Meson Spectroscopy
Deep Inelastic Electron Scattering
Analyticity and the $\pi\pi$ Interaction.

Thurs, 7 Jan, 12.40 pm.

Film
Show

'The Feast' a 29 minute colour film from the
USAEC made in 1970.

This award winning film shows one aspect of the comprehensive studies of the population genetics of primitive peoples. It shows the first stages of alliance formation between two of many mutually hostile Yanomamo Indian villages in Southern Venezuela and Northern Brazil. Through feasting, trading, dancing and chanting, the hosts and their guests, hope to renew an old alliance but both are fearful because such a feast can end in violence through treachery or flaring of tempers.



Fred Hatton who recently retired, receiving his parting gift from Brian Mellor, Head of General Admin Group.

Social News

CHRISTIAN FELLOWSHIP - Friday 9th January in the P L A Conference Room, R12 at 12.30 pm. All welcome

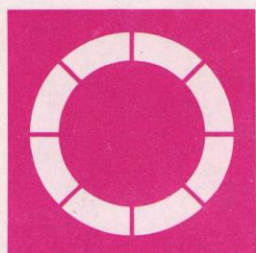
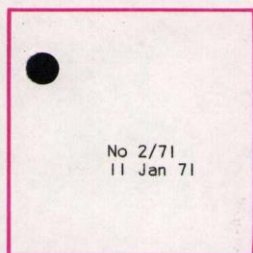
Rutherford Laboratory

1.1.71

H F NORRIS

Scientific Admin Group
Building R20

saw



Rutherford Laboratory Bulletin

General News

COMPUTER AND AUTOMATION DIVISION NEWS The HPDI film measuring machine which went into full production in 1968, entered the 70's with a very successful year. It measured bubble chamber film from four different experiments running on the CERN 2 metre chamber. In the first six months 80,000 events were measured increasing in the second six months to 130,000 events making a grand total for the whole year of 210,000 events. The peak reached in one seven day period was 10,000 events measured. These very fine figures were achieved in spite of the fact that time had to be put aside for the development of the Super-Daedalus on-line data-collection system until the last few weeks of 1970 when this became operational. Super-Daedalus which allows several satellite computers to be connected simultaneously to the central computer, replaces the original Daedalus programme which has been running since 1967.

WHO ORDERED IT!! Will the person who ordered and/or has recently received an American Standard, No USA Y 32. 14, please contact Mr J Plester, R20, Ext 580.

INTERVIEWING TECHNIQUES AERE Training Dept is hoping to run a four day course on Interviewing Techniques from 1-4 February. This is a new course designed to help supervisors deal with the day-to-day "Interviews" which he has to conduct in the course of his duties. Further details on contents of course etc can be obtained from Training Section, Room 77, R20, Ext 555.

COMPUTATIONAL PHYSICS The Culham Laboratory is holding a series of 12 lecture courses on the Introduction to Computational Physics. Further details can be obtained from Training Section, Room 77, R20, Ext 555.

WANTAGE WEA A new 10 week course will commence on Tuesday, 19 January at Icknield School, Springfield Road at 7.30 p.m. Mr E R Morgan will lead a course on "Pollution - A World Problem". Further details from Mrs Richold, Ext 72-4510.

FILM NOTICE It is Period 1. Colour Strip - RED for 8y films. There is no fast neutron issue due to the Nimrod shutdown. Please make sure you are wearing the correct dosimeters.

MISSING EQUIPMENT The following items of equipment which have been reported missing from AERE may now be on the Rutherford Laboratory site.

Tektronic Amplifier, Ser/No 100224
Avometer Model 8, Ser/No 16879 - C - 953
1/4" Electric Drill, AERE No 9725
Avometer Model 8, Ser/No 3766 - C - 252

Anyone with information on the present whereabouts of any of these items is asked to contact Mr E Wood, NP7, AERE, Ext 2680/2540

A Lady's Bicycle has been missing for some time, it was last seen at the rear entrance of Bldg R1 - padlocked!! The bicycle is about 2 years old, colour - yellow, it has straight handlebars and the make is Halfords. It also has 26" wheels but is of modern appearance. Ser No S71405, Lab No RL1(L). Information please to Dr Susan Read, R1, Ext 453.

FOUND A blue fountain pen outside R1 on 31 December. Owner please contact L Denton, Ext 6692.

VISITORS Thirty-two Administrative Grade Assistant Principals, on course at the Civil Service College, will visit the Laboratory on Friday, 15 January.

OVERSEAS VISITS Dr M J Jane, to CERN, 10-13 Jan to attend Omega meeting in capacity of Chairman of the On-line Camac Sub-Committee.

Dr J Garvey and Dr I Corbell, to CERN, 10-13 Jan to attend Omega meeting.

Dr N H Lipman, to CERN, 10-15 Jan, to attend Omega meeting and for discussions on use of Plumbicon for Omega project.

Mr D A Gray and Dr P F Smith, to Karlsruhe, Germany, 11-12 Jan, to attend meeting of the Group for European Superconducting Synchrotron Studies.

The following will visit CERN during the period 10-21 Jan for installation and setting up on the \bar{p} -p beam line:- Messrs L Phillips, A Price, H O Normington, W Russett, S O Gregory and N D Gomersall.

Internal Events

Mon 11 Jan 11.30 a.m.
Lecture Theatre

Nimrod Lecture
Series

Prof F Scheck
(SIN, Zurich)

Nuclear and Particle Properties from Exotic Atoms.

Wed 13 Jan 11 a.m.
Conf Rm R1

HEP Disc Group

Dr A Martin
(Durham)

Neutral Meson Photoproduction and Related Processes
at High Energies

Wed 13 Jan 1.15 p.m.
Thurs 14 Jan 12.40 p.m.
Lecture Theatre

Film Show

"Environment in the Balance" a 30 minute colour film.

This film, the second in the Changing Britain Series, draws attention to the way in which 19th century technology outruns man's power of forethought and ability to control the results of his improvident activities. This documentary with its delightful camera work and unusual musical content, should almost be compulsory viewing for anyone who is concerned about Britain.

Fri 15 Jan 11 a.m. Conf Rm R12	Seminar in Computing	J W Burren	Electric: Technical Details
Mon 18 Jan 11.30 a.m. Lecture Theatre	Nimrod Lecture Series	Prof P Salin (Bordeaux)	Pomeron Structure and Low Energy K^+p Scattering

External Events

Tues 12 Jan 2.30 p.m. Daresbury Laboratory	Lecture Series	T Fields (Argonne/Birmingham)	Two-Body Final States in $\bar{p}p$ Annihilation
Wed 13 Jan 7 p.m. Oxford Polytechnic	IEE District Meeting	J Martin (Post Office)	United Kingdom Developments in Electronic Telephone Systems
Thurs 14 Jan 3.30 p.m. Conf Rm H8 A.E.R.E.	Nucl Phys Colloq	Mr D W Colvin (NP Div)	Marine Technology

Social News

CHESS TOURNAMENT 1970/71 Leading Positions after five rounds show an interesting state:

W Turner, N M Stewart and A Gilby all on $4\frac{1}{2}$ points.
F Lunnon, P T Hemmings and W F Axton all on 4 points.

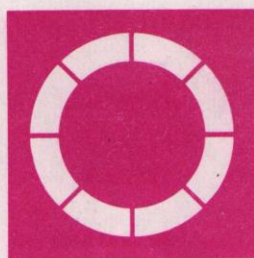
As can be seen, no one has maximum points but the next two rounds should see some changes with all the leading contestants playing one another.

Rutherford Laboratory
8/1/71

JPP

H F Norris Ext 484
Scientific Admin Group
Building R20.

No 3/71
18 Jan 71



Rutherford Laboratory Bulletin

General News

MORE COMPUTING AND AUTOMATION DIVISION NEWS - The HPD 2 film measuring machine, under the direction of R A Lawes, digitized its first frame on 14-12-70. This machine, while using the same principles as HPD 1, represents a considerable advance in technology over the existing production facility. The main improvements consist of the utilization of a local satellite computer (DDP 516) under the Super Daedalus programming system, complete construction of the machine in the latest integrated circuits and operation at 6000 rpm disc speed (compared with HPD 1 at 3000 rpm).

A feature of particular interest is the use of a powerful (200mw) continuous wave Argon Laser (Blue-Green) to provide a measuring spot of only 3µm half height at over 300 times the power of HPD 1. The laser system, developed in collaboration with Dr Welford of Imperial College London, is the first known application of a laser in this field (certainly in Europe). Universities and laboratories at home and abroad planning to measure film from the new B E B C Chamber will be able, through meetings held at RHEL during the development stage, to introduce similar systems on their own machines. At 6000 rpm HPD 2 is the fastest HPD of well over twenty machines in the Laboratories and Universities of Europe and a proposal exists for operation at 9000 rpm perhaps early next year. Meanwhile preparations are being made to measure the first experiment this year.

RUTHERFORD LABORATORY LECTURE - ADVANCE NOTICE - The next lecture in this series will be at 3.15 pm on Thursday 4 February in the Lecture Theatre. It will be given by Dr F E Jones, D.Sc., FRS, Managing Director of Mullard Limited and is entitled "A Scientists View of Industry".

DEPARTMENT OF NUCLEAR PHYSICS OXFORD - ADDRESS - Sometime during the forthcoming term it is expected that the department will cease to occupy 5 Keble Road, 13 and 21 Banbury Road. It would be appreciated if all correspondence to the department or any member is addressed to:- Department of Nuclear Physics, Keble Road, Oxford, OX1 3RH. The telephone number remains Oxford 59911.

LETTER OF THANKS - A letter has been received from Fred Hutton who retired just before Christmas, in which he expresses his most sincere thanks to his colleagues and friends for their good wishes, also for the gift of a portable radio.

He remarks that "this will provide me with many hours of pleasure and 'Happy Memories' of the Laboratory".

CRYOGENICS - The University of Southampton, as in previous years are holding a series of one-day seminars on various aspects of cryogenics, on Fridays of the Spring Term 1971, commencing 29 January. Full details from H F Norris, R20, Ext 484.

FOUND - Treasury notes have been found at the following locations - Bldgs R2 and R6. Enquiries should be made to Mr D Williams Personnel, Ext 495.

SPECIALIST COURSES - Liverpool Polytechnic are due to run a two-day course on "Switching Theory and the Logical Design of Digital Control Systems" and a one-day course on "Recent Developments in Magnetic Sheet Steels." Further details can be obtained from Training Section, Room 77, R20, Ext 555.

VISITORS - Thirty officers of the R A O C Vauxhall Barracks, Didcot, will visit the Laboratory on Thursday, 21 January.

FILM NOTICE - It is Period 1. Colour Strip - RED for 8y films. The next film issue is on Monday 25 January.

UNDELIVERABLE MAIL - Mail has been received for Mr Zoh and Dr A V Bellido. Enquiries to the Editor.

OVERSEAS VISITS - Mr D A Bell, to the Goddard Space Flight Centre, Washington, USA, 16-19 Jan., for technical liaison.
Mr E W G Wallis, to CERN, 18-20 Jan., for technical discussions on installation of p-p experiment.
The Director, to Geneva, 19-20 Jan., to attend meeting of E P S Executive Committee.
Dr C M Fisher, to CERN, 19-21 Jan., to attend CERN Track Chamber Committee and BEBC Working Party.
Dr P R Williams, to CERN, 19-21 Jan., for discussions on facility in 1.5 metre chamber with H Leutz.

Internal Events

Mon., 18 Jan., 11.30 am., Lecture Theatre	Nimrod Lecture Series	Prof P Salin (Bordeaux)	Pomeron Structure and Low Energy K ⁺ p Scattering
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Tuesday 19 Jan., 10 am - 4 pm Conf. Rm., R12 - Demonstration by Roband Electronics Limited of their new low cost R070 90 MHz Oscilloscope. Also on view will be their extensive range of encapsulated power supplies (in the range 0-60 volts and 0-150 amps), modular power supplies including the new ECO range, digital voltmeter and it is hoped some new items for 1971 including low priced stabilised variable power supply units, and information on their spike absorbing over voltage protection unit. Some advance information especially on the oscilloscope is available from H F Norris, R20, Ext 484.

Tues., 19 Jan., 2.30 pm., Lecture Theatre. Proposal Lectures.

Proposal No 88. A proposal for an experiment using the CERN Omega magnet - "Study of Zero Strangeness Bosons using a Neutron Trigger". B'ham U/RHEL/Westfield Coll. Lecture by Dr I F Corbett.

Proposal No 94. "Proposal to study 4 GeV/c π^+ p interactions using the Track Sensitive Target Facility in the 1.5 metre chamber". RHEL/Durham/CERN/UCL. Lecture by Dr C M Fisher.

Wed., 20 Jan., 11 am., Conf. Rm., R1.	HEP Disc Group	Dr D P Roy (RHEL)	Colliding Regge Singularities - An Answer to the Line Reversal Puzzle.
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Wed., 20 Jan., 1.15 pm	Film	'All Change', an 18 minute colour film
Thurs., 21 Jan., 12.40 pm	Show	for the Decimal Currency Board

We are grateful to AERE for the loan of this film. The subject is of course Decimal Currency and it is sufficient to quote the final sentence from the 'Film User' review - "A good introduction to the subject for general audiences".

Thurs., 21 Jan., 2.00 pm Lecture Theatre. Proposal Lectures (Please note early start due to an additional Proposal - No 92.)

Proposal No 92 - "A Proposal to study Production of Neutral States in K⁺p Reactions", Lecture by Dr A M Segar.

Proposal No 90 - A Proposal for an experiment at the CERN PS - "Measurement of the Polarisation Parameters in π^+ p Backward Elastic Scattering". Oxford U/CERN/Osray. Lecture by Dr N E Booth

Proposal No 89 - "A Proposal to measure Parameters of the τ and semi-leptonic decays of the K_L^0 ". Rutherford Lab B/C Group.
Lecture By Dr T C Bacon.

Mon., 25 Jan., 11.30 am., Nimrod Lecture Series Dr B Hyams (CERN) No title at time of going to press.

External Events

Mon., 18 Jan., 5 pm., Univ of Bristol	Phys & Geo Phys Colloq	Dr J Stejny (Bristol)	Polymerisation and Crystallation of Living Chains
Tues., 19 Jan., 2 pm., Lecture Room B8.9 AERE	Theor Phys Seminar	Dr P Hutchinson (AERE)	Deposition of Solid or Liquid Dispersions from Turbulent Gas Streams
Tues., 19 Jan., 7.45 pm., Univ of Reading	British Computer Soc. Branch Meeting	A Smith (I C I)	Advances in Data Management
Tues., 19 Jan., 8 pm Univ. Eng Labs, Parks Rd Oxford	Inst of Mech Eng Meeting	Dr Ing. R J Meijer (Philips Research Lab Eindhoven, Holland)	The Stirling Engine
Wed., 20 Jan., 8.15 pm., Oxford U Maths Inst. 24 St Giles	British Computer Soc. Branch Meeting	Prof P A Samet (UCL)	Efficiency of Operating Systems
Thurs., 21 Jan., 3.30 pm., Conf. Rm., 118 AERE	Nucl. Phys. Colloq	Dr D Lowe	Deformed States in Oxygen ¹⁶
Thurs., 21 Jan., 7.30 pm., Univ of Reading	Inst of Mech Eng Meeting	M N Wilson (RHEL)	Superconducting Magnets

Social News

REC ASSOCIATION NEWS

LUNCH-TIME DARTS LEAGUE - John Moir and John Jurner (Team 3) are setting the pace with 7 points from 7 games, followed by 2 teams, Peter Craske and Bob Marshall (Team 4) and David Sharples and Rob English (Team 10), both on 6 points.

SUNDAY FOOTBALL - The Lab have a match with Oxford Nalgo on Sunday, 17 January, on the AERE 'B' pitch, K.O. 10.30 am. The Rec Assoc would like to hear from anybody willing to ref at these matches. Please contact John Rice, Ext 232

REC. ASSOC. KEYS - A bunch of keys belonging to the Rec Assoc are missing. Two of the keys are numbered C163 and C165, anybody with information as to the whereabouts of these keys is asked to contact John Rice, Ext 232

DATE FOR YOUR DIARY. Fri., 12 March '71. Sec Assoc Dance - Billie Collins Band.

CHRISTIAN FELLOWSHIP - 12.30 pm., Friday, 22 Jan., Conf Rm., R12. All welcome.

Rutherford Laboratory
15-1-71

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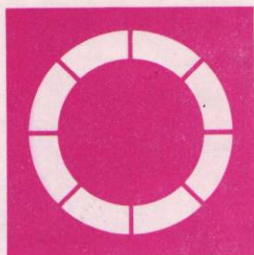
H F NORRIS Ext 484
Scientific Admin Group
Building R20

STOP PRESS

EXTERNAL EVENTS

Wed., 20 Jan., 2.30 pm Univ of Manchester	Theor Phys Seminar	Dr K Singer (Royal Holloway College)	"Monte Carlo simulation of equilibrium properties of real systems".
Thurs., 21 Jan., 4.15 pm Univ of Manchester	Nucl. & High Energy Joint Seminar	Prof P G Murphy (Manchester)	" $K_L^0 \rightarrow \pi^+ \pi^- \pi^0$ ".

No 4/71
25 Jan 71



Rutherford Laboratory Bulletin

General News

FOUND - A sum of money has been found in Building R1. Enquiries should be made to Mr J Marshall, R1, Ext 6603.

FILM NOTICE - Period 2 commences Monday, 25 January. Colour Strip - BLUE for 8y films and fast neutron packs. Six monthly TLD change for people with surnames commencing EFGH. Please change your dosimeters promptly.

UNDELIVERABLE MAIL - Mail has been received for Mr T D Penton from AG Designs (Romford) Ltd. Enquiries to the Editor.

OVERSEAS VISITS - Dr G R Stevenson, to CERN, 25-27 January, for 300 GeV Radiation Problems Meeting and discussion of joint paper for International Congress at CERN in April.

Mr G H Adamson to the Hague, Holland, 28-29 January, to attend meeting of SEAS OS Sub-Committee.

Internal Events

Mon., 25 Jan., 11.30 am, Lecture Theatre	Nimrod Lecture Series	Dr B Hyams (CERN)	Measurement of A_2 Mass Spectrum
Tues., 26 Jan., 9-10 am Wed., 27 Jan., 9-10 am Thurs., 28 Jan., 9-10 am	Lecture Theatre	A series of three lectures for experimentalists on Duality to be given by Dr R J N Phillips	
Wed., 27 Jan., 11 am, Conf. Rm., R1	HEP Disc. Grp.	Dr S J. Goldsach (IC)	A Dual Diffractive Model of the Q-Meson
Wed., 27 Jan., 1.15 pm, Thurs., 28 Jan., 12.40 pm Lecture Theatre	Film Show	'Atomic Search', a 29 minute colour film from the USAEC	

PLEASE NOTE THAT OWING TO THE POST OFFICE STRIKE THE FILM MAY NOT BE AVAILABLE. PLEASE WATCH NOTICE BOARD IN COFFEE LOUNGE, R22.

The film, "Atomic Search", made in 1970, records many achievements in the peaceful uses of nuclear energy made by scientists in the USA during the year 1969.

Fri., 29 Jan., 11 am, Conf. Rm., R12	Seminar on Computing	P Adams	A Real Time Interpreter for Beamline Control
Mon., 1 Feb., 11.30 am, Lecture Theatre	Nimrod Lecture Series	Dr G C Oades (RHEL)	Why we Need to Understand Coulomb Corrections In Order to Interpret Hadronic Data

External Events

Mon., 25 Jan., 5 pm Univ. of Bristol	Phys & Geo-Phys Colloq	Prof R L Gregory (Bristol)	Images - Mental and Astronomical
Mon., 25 Jan., 5 pm Univ. of Reading	Colloq	Dr R J Spear (Imp Coll)	Total Eclipses and the Ultra-violet Flash Spectrum of the Sun
Tues., 26 Jan., 11.30 am Daresbury Laboratory	Lecture Series	Dr B Hyams (CERN)	New Results on A_2 Production at High Energies
Wed., 27 Jan., 2.30 pm Univ of Manchester	Theor Phys Seminar	Dr F H Meis (UC)	Title to be announced
Thurs., 28 Jan., 4.15 pm Univ of Manchester	Nucl & High Energy Joint Seminar	Dr R Chapman	(t,p) Reactions
Thurs., 28 Jan., 4.15 pm Clarendon Lab., Oxford	Theor Phys Seminar	Prof R E Peierls	Then and Now
Thurs., 28 Jan., 7.30 pm Univ of Reading	IERE Branch Meeting	G Jones (National Semiconductor Corp)	Character Generation

Thurs., 28 Jan., 8.30 pm
Nucl Phys Lab., Oxford

Seminar in Elementary
Particle Physics

Dr K Green (Oxford)

S = + 1 Baryon Resonances and
Backward Scattering

Fri., 29 Jan., 2.30 pm
Clarendon Lab., Oxford

Elementary Particle Theory
Seminar

Dr Nielson (Copenhagen)

Subject to be announced - Probably
in Multi-Veneziano Theory

EVENT AT AERE

Thurs., 28 Jan., 3.30 pm
Conf Rm., H.8

Nucl Phys Colloq

Dr M Ivanovich
(NP Div)

Proton - Proton Final-State
Interaction in the $H^2(p,pn)p$ Reaction

Social News

CHRISTIAN FELLOWSHIP - Friday 29 January, 12.30 pm Conference Room R12. The Rev G Crees, curate of Harwell Parish Church will be speaking. All welcome.

AERE HORTICULTURAL SOCIETY - Advance notice of the next evening lecture on Tuesday, 9 February. Alan Paterson of Culham College will give a colour slide talk on the History of Garden Design. Tickets will be available shortly from the Editor.

Rutherford Laboratory
21-1-71

H F Norris Ext 484
Scientific Admin Group
Building R20

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