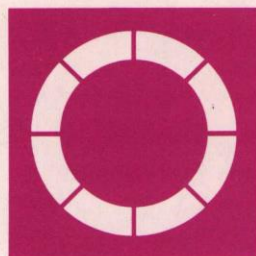


No. 35/68
7 Oct 68



Rutherford Laboratory Bulletin

Maurice Marchbanks, B.Sc.(Eng) Hons., A.C.G.I., D.I.C.

One of the most senior of our engineers, especially in years of service, has retired. Maurice Marchbanks joined the Atomic Energy Research Establishment at Harwell on the 1st October, 1947, and moved over to the Rutherford Laboratory in 1957. On Wednesday, 2nd October, twenty-one years and one day later, he retired.

It is interesting to note that Maurice has only had two jobs in his entire working life, as previous to his appointment at Harwell he had been with Metropolitan Vickers, a firm which has probably produced some of the greatest engineers in this country.

He was apprenticed to Metropolitan Vickers in 1925 and stayed with the firm for twenty-two years. After his apprenticeship, he was taken on the staff and for a number of years was concerned with research into induction furnaces. He later transferred to the commercial side and became involved in the engineering design of many products.

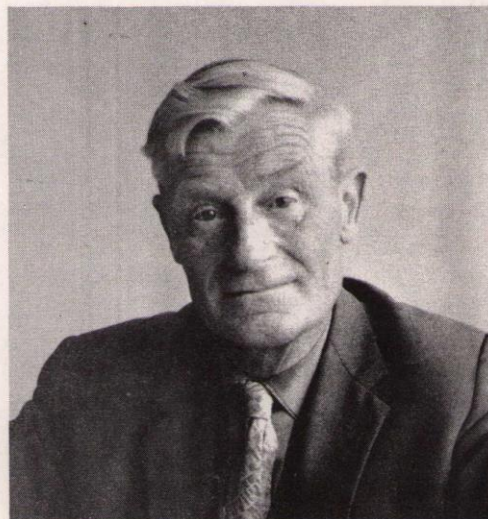
In 1947 Maurice joined the A.E.R.E. to take charge of the Engineering Services Group. Later he was to become associated with remote handling and for a time, with the design of specialised High Pressure Apparatus.

He joined the Nimrod project in November 1957, to work on the Nimrod Power Supply, and has been concerned with electrical engineering design since the plant was commissioned. A major part of his time during the last three years has been devoted to engineering training and his experience and guiding hand has been appreciated greatly by many of the engineering staff. His interest in training goes back many years, in fact for most of his working life he has been associated with apprentice training and was during the formative years of the the Harwell Apprenticeship Scheme, Chairman of the Board.

Outside working hours his main hobby has been gardening, with a special fascination for "alpines". He has been an active member of the A.E.R.E. Horticultural Society and has served on the Committee for the past twenty years.

Maurice and his wife, who have three sons and one daughter, plan to take up residence in Dawlish, Devon.

On Wednesday, 2nd October, the Director, Dr. T. G. Pickavance, in presenting Maurice Marchbanks with a farewell gift from his colleagues, wished him a long and happy retirement. His many friends and colleagues from Harwell and the Laboratory were present to support the Director by tendering their individual good wishes.



General News

VISITORS. A party of Soviet Scientists is expected to visit the Laboratory on Wednesday, 9 October.

RADIATION PROTECTION NOTICE - FILM ISSUES. Period 11 commences Monday, 7 October. Colour Strip - GREEN for $\beta\gamma$ and fast neutron films. Please change your films promptly and return all films.

TECHNICAL GRAPHICS CONFERENCE. A conference on 'Technical Graphics' the Visual Communication of Scientific and Technical Information, will be held at the Cockcroft Hall AERE on Saturday, 12 October. Registration forms and further details from H. F. Norris R.20, Ext 484. Registration forms must be completed and sent to Mr. F. K. Pyne, Bldg 77 AERE Harwell to arrive not later than Wednesday, 9 October. The Conference fee is £2.

OVERSEAS VISITS. Prof. W. D. Allen and Dr. L.C.W. Hobbis, to Moscow, 8-22 October, to attend the USSR National Conference on Particle Accelerators and to visit other accelerator centres in Russia. Dr. Hobbis will also visit CERN, 22-24 October for discussions.

Machine Schedules

NIMROD Cycle 11 (1.10.68 - 22.10.68)

Machine Physics: High Energy Physics (K11, K12, K13, K8 and π 7)
Full details of Cycle 11 were given in Bulletin No. 34/68

P.L.A.

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
7 - 8 Oct	RHEL	(p,d) and (p,t) Reaction on Ni Isotopes
9 - 10 Oct	AERE	Proton Induced Reactions on Tin Isotopes
11 - 14 Oct	Univ of British Columbia	Life-time of H^- Ions in a Magnetic Field

Internal Events

Mon, 7 Oct, 11.30 a.m.
Lecture Theatre
Tues, 8 Oct, 12 noon
Lecture Theatre

Nimrod Lecture Series
Lecture for Experimentalists

Dr. H. H. Atkinson
Dr. G. Manning

Polarized Targets - A Review

Part 3 of a short course on K^0 \bar{K}^0 System

R20

Wed, 9 Oct, 11 a.m. Conf. Rm, R1.	HEP Disc Grp	Dr. P. Winternitz	Relativistic Expansions of Scattering Amplitudes and Regge Pole Theory
Thurs, 10 Oct, 12.40 p.m. Fri, 11 Oct, 1.15 p.m. Lecture Theatre	Film		'Operation Undersea' 20 mins, colour; a UKAEA film

A shortened version of the film, Winfrith Pipeline which dealt with the construction of a pipeline from the Atomic Energy Establishment, Winfrith, to the coast and its construction two miles out to sea. 'Operation Undersea' concentrates mainly on the underwater sequences.

Mon, 14 Oct, 11.30 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. A. A. Owen (UCL)	The Branching Ratio $\eta \rightarrow (\pi^0 \pi^0 \pi^0) / (\pi^+ \pi^- \pi^0)$
--	--------------------------	-------------------------	---

External Events

Fri, 4 Oct, 6.30 p.m. Univ of Bristol	Inst of Maths Lecture	Dr. J. M. Hammersley (Oxford)	The Enfeeblement of Mathematical Skills by 'Modern Mathematics' and by Similar Soft Intellectual Trash in Schools and Universities
Mon, 7 Oct, 6 p.m. Savoy Place, London	IEETE Lecture	E. Eastwood (Director of Research, English Electric Co. Ltd)	LASERS - Light for the Engineer
Wed, 9 Oct, 7 p.m. S.E.B. Yarnton, Oxford	IEE Oxford Meeting	D. M. Cherry (CEGB)	High Voltage Transmission Development

More details, location etc and acceptance slips from H F Norris, R20, Ext 484.

EVENT AT DARESBURY

Tues, 8 Oct, 2 p.m. New Lecture Theatre	Daresbury Lecture Series	Donnachie and Moorhouse (Glasgow)	Recent Theoretical Developments
--	-----------------------------	--------------------------------------	---------------------------------

EVENT AT AERE

Tues, 8 Oct, 2 p.m. Conf. Rm, B.8.9	Theor. Phys Seminar	Dr. D. Tsai (Nat. Bureau of Standards)	Theory of Shock Compression of a Crystal Lattice.
--	------------------------	---	---

Social News

RECREATIONAL SOCIETY CONCERT. 12.30 p.m., Lecture Theatre on 9 October. Folk Songs - sung by Susie, Gill and Dusty.

CHRISTIAN FELLOWSHIP. 12.30 p.m., Fri, 11 Oct, P.L.A. Conf. Rm, R.12.

Continuation of Bible Study on "The Victorious Life",
All are welcome

FILM SHOW. See 'Internal Events' for details.

COCKROFT HALL FILM SHOW. The Horticultural Society at Harwell is presenting a film on "Belgian Begonias" (20 mins, colour) at 1 p.m. on Monday 7 October. Anyone interested is invited to attend the showing.

(Passes are not required as the Cockcroft Hall is outside the fence)

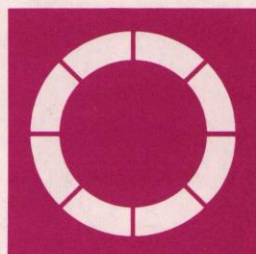
H. F. Norris, Ext. 484,
Scientific Administration Group,
Building R.20.

Rutherford Laboratory

4.10.68.

vlp.

No. 36/68
14 Oct 68



Rutherford Laboratory Bulletin

General News

OVERSEAS VISITS. The Director will attend a Plenary ECFA Meeting at CERN on 15 October.

Mr. N. Beaton will visit CERN on 13 - 18 October in connection with the Epistle experiment.

RADIATION PROTECTION NOTICE - FILM ISSUES. Period 11 commenced Monday, 7 October. Colour Strip - GREEN for $\beta\gamma$ and fast neutron films. Please check that you are wearing the correct films and return all old ones.

OFFICE ACCOMMODATION CHANGES. The RHEL Safety Group and Messrs Frank N. Falkner and Partners have now moved from Building R.13 to the new extension in R.20. Messrs L. A. Francis and Sons will move to the new extension within the next few days. Telephone Nos. remain unchanged.

Machine Schedules

NIMROD Cycle 11 (1.10.68 - 22.10.68)

Machine Physics; High Energy Physics (K11, K12, K13, K8 and π^7)

Full details of Cycle 11 were given in Bulletin No. 34/68.

P.L.A.

Date	Team	Experiment
14 Oct	Univ. of British Columbia	Life-time of H^- Ions in a Magnetic Field
15 - 17 Oct	Maintenance	
18 - 21 Oct	Manchester Univ.	Cryogenic Scattering Chamber Tests.

Internal Events

Mon. 14 Oct, 11.30 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. A. A. Owen (UCL)	The Branching Ratio $\eta \rightarrow (\pi^0 \pi^0 \pi^0) / (\pi^+ \pi^- \pi^0)$
Tues. 15 Oct, 12 noon Lecture Theatre	Lecture for Experimentalists	Dr. G. Manning	Part 4 of a short course on the $K_0^* \bar{K}_0$ System
EXHIBITION. Wed. 16 Oct., 9.30 a.m. - 12.00 noon outside Bldg. R.25: A Demonstration Vehicle from Messrs Hewlett - Packard will exhibit a wide range of electronic test equipment. (Please see notice-boards for further details).			
Wed. 16 Oct, 11 a.m. Conf. Room, R.1	HEP Discussion Group	Dr. A. N. Kamal	Pion Form - factor and π - π Phase Shifts
Wed., 16 Oct, 12.40 p.m. Thurs, 17 Oct, 1.15 p.m. Friday, 18 Oct, 12.35 p.m. Lecture Theatre	Film: "On the Safe Side"	A 20 - minute, award-winning colour film on electrical safety, made jointly by AERE, RHEL and the Culham Laboratory. This film is a "must", particularly for those working on high voltage experimental apparatus.	
Mon, 21 Oct, 11.30 a.m. Lecture Theatre	Nimrod Lecture Series	Prof. J. Perez-y-Jurba (Orsay)	Vector Meson Studies at ORSAY Colliding Ring
Thurs. 24 Oct, 3.15 p.m. Lecture Theatre	Rutherford Laboratory Lecture	Dr. R. J. N. Phillips	Who's Afraid of Regge Poles?

External Events

Mon. 14 Oct, 4.15 p.m. Clarendon Lab., Oxford	Elementary Particle Theory Seminar	Dr. C. Michael (RHEL)	Regge Pole Absorption Theory
Mon. 14 Oct, 4.15 p.m. Queen Mary College, London	Theor. Physics Seminar	Prof. N. H. March (Sheffield Univ.)	Asymptotic Form of Correlation Functions in Classical and Quantum Fluids.
Mon. 14 Oct, 5.00 p.m. H. H. Wills Phys. Lab., Bristol	Physics Colloq.	Dr. R. H. Johnson (Elec. Council, Capenhurst)	Superplasticity.
Tues. 15 Oct, 2.00 p.m. Conf. Rm., Bldg. 8.9, AERE.	Theor. Physics Seminar	Prof. J. S. Rowlinson	Intermolecular Forces and the Three States of (Imperial Coll., London) Matter
Tues. 15 Oct, 5.00 p.m. University Museum, Oxford.	Cherwell-Simon Lecture	Prof. A. Abragam (Collège de France)	Big Science versus Little Science
Tues. 15 Oct, 7.30 p.m. J. J. Thompson Lab, Reading	I.E.R.E. Lecture	K. R. Thrower Esq., (Racal Electronics Ltd.)	Frequency Synthesizers.

Continued ...

STOP PRESS (Internal Events)

Thurs. 17 Oct, 11.30 a.m. Lecture Theatre.	Special Lecture	Dr. Won Yong Lee (Saclay)	Experimental Test of C Invariance in the Decays $\eta \rightarrow \pi^+ \pi^- \pi^0$ and $\eta \rightarrow \pi^+ \pi^- \gamma$.
---	-----------------	------------------------------	--

15 - 18 Oct.: Engineering Exhibition, at the New Horticultural Hall, London.

Wed. 16 Oct, 2.30 p.m. Manchester University	Theor. Physics Seminar	Dr. R. C. Johnson (Univ. of Surrey)	Recent Work on Deuteron Stripping and Pick-up Reactions.
Wed. 16 Oct, 3.00 p.m. Cavendish Lab., Cambridge	High Energy Physics Seminar	Dr. E. J. Squires (Durham Univ.)	Regge Poles and Resonances.
Thurs. 17 Oct, 4.15 p.m. Clarendon Lab., Oxford	Theor. Physics Seminar	Prof. E.E. Salpeter (Cornell Univ. and Cambridge)	Neutrino Astrophysics.

Social News

FILM SHOW. See "Internal Events" for details

CHRISTIAN FELLOWSHIP. Stop Press: Friday, 11 October. Part 2 of the recording of the Sermon by Billy Graham, "Why I believe Jesus Christ to be the Son of God". (Please note change of programme from that previously advertised).

Friday, 18 October: Bible Study on "The Holy Spirit", led by Mr. E. Newbold of Personnel Group.

Both meetings will be held in the PLA Conference Room, R.12, commencing at 12.30 p.m. All are welcome.

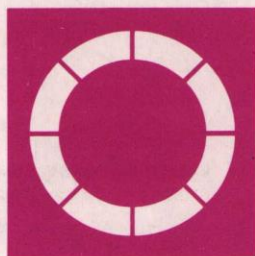
B. E. Kingdon, Ext. 6297
Scientific Admin. Group
Building R.20.

Rutherford Laboratory

11.10.68

pmh

No. 37/68
21 Oct 68



Rutherford Laboratory Bulletin

General News

RADIATION PROTECTION NOTICE. It is Period 11. Colour Strip - GREEN for $\beta\gamma$ and fast neutron films. Please make sure you are wearing the correct films. Next film badge change - 4 November.

VISITORS. A party of 30 pupils and members of staff from Churcher's College, Petersfield, will visit the Laboratory on Tuesday afternoon 22 October.

OVERSEAS VISITS. Dr. M.R. Jane to CERN, 21 Oct for seven to eight weeks, to participate in data collection runs on $K^0 \rightarrow 2\pi$ interference experiments.

Dr. O.R.J. Ranft, to CERN, 22-25 Oct, to attend a two day meeting of the Study Group for High Efficiency Ejection.

Dr. I. Butterworth to CERN and the USA 22 Oct - 3 Nov to attend CERN TC Committee Meeting and Conference on Automatic Bubble Chamber Measuring Techniques at Argonne. He will also visit the Brookhaven Laboratory.

Dr. P.F. Smith to CERN, 23-25 Oct, to attend Royal Society meeting on large Superconducting Magnets and to see CERN work on superconductivity.

Mr. J. Sparrow, to the USA, 23 Oct for one week to attend Conference on Flying Spot Digitisers at Argonne National Laboratory, also to visit Brookhaven.

Dr. A.J. Oxley, to the USA, 23 Oct for eighteen days to attend Conference on Advanced Data Processing at Argonne and to visit the Brookhaven, Berkeley and Stanford Laboratories.

Mr. M. Snowden, Dr. D. Thomas, Mr. J.D. Lawson and Mr. P.T.M. Clee to CERN, 24 Oct to attend Conference on Large Superconducting Magnets.

Mr. H. Hurst, to the USA, 24 Oct for two weeks, to visit various centres for discussions on matters concerned with IBM Computers.

Machine Schedules

NIMROD Cycle 12 (22.10.68. - 12.11.68.)

Machine Physics
High Energy Physics

<u>Team</u>	<u>Beam</u>	<u>Experiment</u>	<u>Data</u>
Cambridge Univ.	X1/K9	Study of the Hyperon-Nucleon Interaction in the 1.5 m Bubble Chamber	Data
UCL/CERN/Brussels U./ Tufts U. (U.S.A.)	K 11	2.3 GeV/c K^- Exposure in the Propane Bubble Chamber	Data
Birmingham Univ.	K 12	$K^+ p$ Differential Cross-section Measurements from 0.45 - 0.85 GeV/c	Setting up/ Data
Cambridge U./RHEL	K 13	Measurement of the Amplitude for $\Delta S = - \Delta Q$ Interactions in K^0 Decay	Data
Westfield Coll./RHEL	K 14	Non-leptonic Decay Parameters of the Σ^+	Setting up/ Data
UCL/RHEL	K 8	$K^- p$ Differential Cross-sections from 0.85 - 2.2 GeV/c	Setting up/ Data
Imp. Coll./Southampton U.	π 7	An Investigation of Narrow Bosons Produced in πp Collisions	Setting up
Oxford Univ.	K 10 S	Study of $K^+ p \rightarrow$ Neutral Final States for K^- Momenta in the range 0.6 - 1.8 GeV/c	Setting up
AERE/QMC/RHEL/Bergen U (Norway)	P 7	A Study of pp Elastic Scattering at Large Angles in the Momentum Range 1.5 - 4.0 GeV/c	Setting up

P.L.A.

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
19 - 22 October	Manchester Univ.	Cryogenic Scattering Chamber Tests
23 - 30 October	Kings College, London.	Elastic Scattering from Cu Isotopes

Internal Events

Mon. 21 Oct, 11.30 a.m. Lecture Theatre	Nimrod Lecture Series	Prof. J. Perez-y-Jurba (Orsay)	Vector Meson Studies at ORSAY Colliding ring
Mon. 21 Oct, 2.15 p.m. Lecture Theatre	Nimrod Proposal Lectures	(i) A Proposal to Measure the Asymmetry in Eta Decay (Dr. N.H. Lipman - Proposal No. 70)	
3 p.m.		(ii) A Proposal to Study $K^+ p$ Scattering between 300 and 500 MeV/c K^+ Incident Momenta in the Laboratory System (Dr. S.G. Frank - Proposal No.69)	
Tues. 22 Oct. 12.00 Lecture Theatre	Lecture for Experimentalists	Dr. G. Manning	Part 5 of a Short Course on the $K_0\bar{K}_0$ system
Wed. 23 Oct. 11.00 a.m. Conf. Room, R.1.	HEP Discussion Group	Mr. D. Morgan	Low Energy $\pi-\pi$ Parameters from Forward Dispersion Relations.
Wed. 23 Oct, 12.30 p.m. Thurs. 24 Oct, 1.15 p.m. Lecture Theatre	Film	"The Small Propellor" 24 mins., colour. A British Petroleum film.	

(Please note early start on Wed.)

Five sequences picture some of the uses of small boats. Starting in Sydney with the preparations and start of the Australian Ocean Classic Power Boat Race, the film moves on to tranquility in Venice, Stockholm, using small boats for fun, Singapore for medical visits to the many nearby islands and finally to Queensland where the Aquadevils of Surfers Paradise perform fantastic feats in boats and on water skis.

Thurs. 24 Oct, 3.15 p.m. Lecture Theatre	Rutherford Lab. Lecture	Dr. R.J.N. Phillips	Who's Afraid of Regge Poles?
---	-------------------------	---------------------	------------------------------

(A layman's introduction to a remarkable concept in the world of fundamental particles).

Mon. 28 Oct, 11.30 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. Russell Stannard (U. Coll. London)	Study of K_{s4} Decay
--	-----------------------	--	-------------------------

External Events

Mon. 21 Oct. 4.15 p.m. Clarendon Lab., Oxford.	Elementary Particle Theory Seminar	Dr. P.J.S. Watson (Oxford Univ.)	The Quark Model and Weak Interactions
Mon. 21 Oct. 4.15 p.m. Queen Mary Coll. London.	Theor. Physics Seminar	Prof. J.C. Polkinghorne (Cambridge Univ.)	Recent Developments in Regge Theory
Wed. 23 Oct. 3.00 p.m. Cavendish Lab. Cambridge	High Energy Physics Seminar	Dr. D.N. Edwards (Liverpool Univ.)	Multi-Meson Resonances in pp Annihilations
Thurs. 24 Oct., 4.15 p.m. Clarendon Lab, Oxford.	Theor. Physics Seminar	Prof. R.E. Peierls (Oxford Univ.)	Phase Transitions in Two and Three Dimensions
Fri. 25 Oct. 4.30 p.m. Queen Mary Coll. London.	Particle Physics Seminar	Dr. D.H. Davis (Univ. Coll. London)	Hypernuclei
EVENTS AT AERE			
Tues. 22 Oct. 2 p.m. Conf. Rm. Bldg. 8.9	Theor. Phys. Seminar	Dr. A M. Lane	Further Developments in Nuclear Line Broadening
Tues. 22 Oct. 3.30 p.m. Cockcroft Hall	Harwell Lecture	Dr. H. Thiemann (Director-General The Batelle Inst. Geneva)	Research and Economics as Tools for the Entrepreneur

(Admission by ticket only obtainable from H.F. Norris, R.20., Ext: 484).

Thurs. 24 Oct. 3.30 p.m. Conf. Rm., Bldg. 7.21	Nucl. Phys. Colloq.	Dr. G.D. James	Subthreshold Fission Resonances
---	---------------------	----------------	---------------------------------

Social News

CHRISTIAN FELLOWSHIP. 12.30 p.m. Friday, 25 October in the PLA Conference Room, R.12. Prayer Meeting led by J.L. Thomas of Nimrod General Physics Group. All are welcome.
FILM SHOW. See 'Internal Events' for details of this week's film.

Rutherford Laboratory
18.10.68.

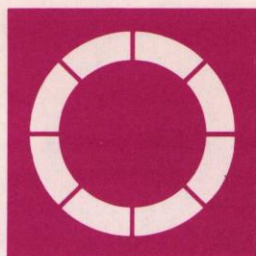
H.F. Norris Ext: 484
Scientific Administration Group
Building R.20.

STOP PRESS

P.L.A. News

A group of physicists from Canada associated with the construction of a 500 MeV negative ion cyclotron (TRIUMF) have recently completed an experiment to measure the stripping of H^- ions in high magnetic fields. H^- ions accelerated in the PLA to 50 MeV (believed to be the first occasion on which this has been done in a linear accelerator) were passed through a Nimrod Type I bending magnet modified to give fields of up to 23 Kilogauss. H^- ions produced in the magnetic field were detected using a sonic spark chamber. The results indicate that the negative ions have a lifetime approximately 3 times shorter than was originally estimated and this may necessitate some modifications to the design of the magnet for TRIUMF.

No. 38/68
28 Oct 68



Rutherford Laboratory Bulletin

General News

TRANSPORT NOTICE. Parking bays for Northbound buses in the A.E.R.E. Bus Park will be renumbered from Monday, 28 October. Details are displayed on Laboratory notice-boards and in the Bus Park.

RADIATION PROTECTION NOTICE. It is Period 11. Colour strip - GREEN for $\beta\gamma$ and fast neutron films. Please make sure you are wearing the correct films. Next film issue - 4 November.

VISITORS. 15 members of the Wallingford and District Round Table will visit the Laboratory on Tuesday evening, 29 October.

OVERSEAS VISITS. Mr. N. Beaton to C.E.R.N. 27 Oct. - 1 Nov., in connection with the "Epistle" experiment.

Machine Schedules

NIMROD Cycle 12 (22.10.68 - 12.11.68)

Machine Physics; High Energy Physics (X1/K9, K11, K12, K13, K14, K8, π 7, K10S, P7)

Full details of Cycle 12 were given in Bulletin No. 37/68.

<u>P.L.A.</u>	<u>Date</u>	<u>Team</u>	<u>Experiment</u>
	28-30 Oct.	King's College, London	Elastic Scattering from Cu Isotopes.
	31 Oct.	RHEL and Glasgow Univ.	Detector Tests.
	1 Nov.	Maintenance	
	2-5 Nov.	Oxford Univ.	$N^{15} (p, \alpha) C^{12}$ Reaction.

Internal Events

Mon. 28 Oct., 11.30 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. Russell Stannard (Univ. Coll. London)	Study of $K_{\alpha 4}$ Decay.
Tues. 29 Oct., 11.00 a.m. Conf. Rm., Bldg. R.1.	HEP Discussion Group	Prof. N. E. Booth (Univ. of Chicago)	Dips in π^-N Differential Cross Sections

The series of Lectures for Experimentalists is discontinued until further notice.

Wed, 30 Oct., 12.40 p.m. Film: The History of Motor Racing, Part 5,
Thurs. 31 Oct., 1.15 p.m. "Racing Reborn" (1940 - 1948). Lecture Theatre (27 mins.).

Mon., 4 Nov., 12.30 p.m., Lecture Theatre	Nimrod Lecture Series	Prof. J. E. Squires (Durham Univ.)	Is it Possible to Determine Resonance Positions?
--	-----------------------	---------------------------------------	--

External Events

Mon., 28 Oct, 4.15 p.m. Queen Mary Coll., London	Theor. Physics Seminar	Prof. J.S.R. Chisholm (Canterbury Univ.)	Padé Approximants and their Applications.
Mon., 28 Oct, 4.15 p.m. Clarendon Lab., Oxford	Elementary Particle Theory Seminar	Dr. A.J. Macfarlane (Cambridge Univ.)	SU(3) and Chiral Dynamics.
Tues., 29 Oct. 1.00 p.m., Cockcroft Hall, A.E.R.E.	Film: "Worth a Thousand Words". (20-minute colour film on computers, made by Culham Laboratory).		
Tues., 29 Oct., 2.00 p.m., Daresbury Laboratory	Daresbury Lecture Series	Prof. J.C. Willmott (Manchester Univ.)	Nuclear Structure Physics and the Proposed National Laboratory.
Thurs., 31 Oct., 3.30 p.m. Conf. Rm. Bldg. 7-21, AERE	Nuclear Physics Colloquium	Dr. J. Scheer (Hahn-Meitner Inst., Berlin)	Spectroscopic Studies in the 1-p Shell.
Thurs., 31 Oct., 4.00 p.m. University Coll. London	Elementary Particle Seminar	Dr. C. Chiu	Restrictions on SU(3) Mixing imposed by Exchange Degeneracy.
Thurs., 31 Oct., 4.15 p.m. Clarendon Lab., Oxford	Theor. Physics Seminar	Prof. Sundaresan	Nuclear Excitations in Muonic Lead.

/continued overleaf

Social News

CHRISTIAN FELLOWSHIP. Friday, 1 November at 12.30 p.m., in the P.L.A. Conference Room, R.12:

Visit of Miss B. White of the Overseas Missionary Fellowship, at present on furlough from Thailand.
A warm invitation is extended to all, to come and hear this most interesting speaker.

FILM SHOW. See "Internal Events" for details of this week's film. (N.B.: come early if you want a seat!).

RECORD SOCIETY. The first programme of the season will be given at 12.30 p.m. on Tuesday, 5 November in the Lecture Theatre, when we hope to play one of the exciting "Phase 4 Stereo" records, using the new equipment. Don't forget the date!

KEEP-FIT CLUB. Are you fit? Can you run for a bus with very little effort? If you cannot and you would like to do something about it, then contact E.W. Clark between 12.45 and 1.15 p.m. in the Recreational Hut, R.14 (available most lunch-times).

DARTS TOURNAMENT. The Recreational Society's Annual Open Darts Tournament will be held at 7.30 p.m. on Friday, 22 November in the Restaurant Coffee Lounge, R.22. Team names should be given to J. Hoskins, R.2, Ext. 6301 by 15 November. Please see notice-boards for further details.

B.E. Kingdon, Ext: 6297
Scientific Admin. Group
Building R20.

Rutherford Laboratory
25.10.68.