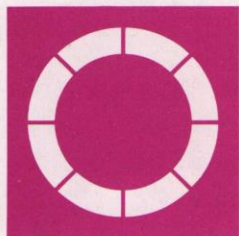


No 1/68
8 Jan 68



Rutherford Laboratory Bulletin

General News

OBITUARY NOTICE. We deeply regret to announce the death of Mr. C.G. McGibbon of the Nimrod Power Supplies Group on Saturday 30 December whilst on duty. Cyril McGibbon who was aged 57 joined the Laboratory in April 1962 having previously worked at Harwell. Our deepest sympathy is extended to his wife and family.

VISITOR. Dr. W.A. Wenzel, from the Lawrence Radiation Laboratory, will visit the Laboratory on Thursday & Friday, 11th & 12th January. Anyone wishing to see Dr. Wenzel should contact Dr. J.J. Thresher, Ext. 443.

RADIATION PROTECTION NOTICE. Period 1 commenced Monday, 1 January. Colour Strip - RED for $\beta\delta$ and fast neutron films. Please return all old films promptly.
Next film badge change - 29 January.

CONFERENCE. The Institute of Mathematics and its Applications and The British Computer Society are holding a joint conference on "Optimization, at the Univ. of Keele, 25-28 March 1968. Application forms can be obtained from The Institute of Mathematics and its Applications, Maitland House, Warrior Square, Southend-on-Sea.

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

Hot Plate - RHEL 14/1823

Will the person who borrowed this item during the past twelve months please contact the Local Admin Office, Room 2.74, R.L. Ext. 258.

OVERSEAS VISITS. Dr. R.H. Thomas, to Paris, 8-15 Jan, to attend meeting of the International Commission on Radiological Protection.

Mr. J.B. Mellor, to CERN, 10-12 Jan, for discussions on administrative matters.

Dr. M.A.R. Kemp, to Rome, CERN & DESY, 10-31 Jan, for various discussions.

Dr. D.V. Bugg, to CERN, 14-19 Jan, to attend the conference on "High Energy Collisions of Hadrons" and to discuss experiments at CERN.

Machine Schedules

NIMROD CYCLE 11 (27.12.67 - 16.1.68).

High Energy Physics (π^+ , K⁺, K⁰, K⁻, K⁰, K⁺ & K⁻).

Full details of Cycle 11 were given in Bulletin No. 48/67.

P.L.A.

Date	Team	Experiment
8 - 9 Jan.	Manchester Univ.	Elastic and Inelastic Scattering from Cd and Zr.
10 - 11 Jan.		Maintenance
12 - 17 Jan.	Queen's Univ. Belfast and Westfield Coll.	(p,d) and (p,t) Reactions on B ¹⁰

Internal Events

Mon, 8 Jan, 11.45 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. R.C. Arnold (Argonne)	Recent work in Regge Poles and Associated Topics.
Please note that in future, lectures in the Nimrod Series will commence at 11.45 a.m. This is an attempt to reduce the crowded conditions which prevail in the restaurant at 12.30 p.m. when the previous lectures finished. Coffee will still be available before the lectures.			
Tues, 9 Jan, 3 p.m. Lecture Theatre	Special Lecture	Dr. T.B. Novey (Argonne)	The Argonne Neutrino Experiment, also a brief summary of the current charge exchange experiment
Wed, 10 Jan, 12.40 p.m.; Thurs, 11 Jan, 1.15 p.m. Lecture Theatre	Film	"The Radio Sky", a 27 min. colour film.	
The development of the radio telescope in the service of astronomy and communications is shown, also the problems of designing very large modern instruments. The film traces the growth of the new science of radio astronomy from its beginnings in 1933. The operation of a radio telescope is shown and the plotting and identification of radio sources. A new picture of the universe and its history is revealed by radio astronomy.			
Wed, 10 Jan, 3 p.m. Lecture Theatre	Special Lecture	Dr. V. Perez-Mendez (U. of California, Berkeley)	Magnetostrictive Readouts.
EXHIBITION. A demonstration of Oscilloscopes and Plug-in Units by Tektronix (U.K.) Ltd. will be held in R.L. Conference Room on Thursday, 11 January, 10.30 a.m. - 4 p.m. Brief details (of the equipment to be shown) are given on notice boards; further information may be obtained from B.E. Kingdon, R.20, Ext. 6297.			
Mon, 15 Jan, 11.45 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. L. Stodolsky (Orsay)	Coherence and Interference Effects in High Energy Reactions.

External Events

Wed, 10 Jan, 7 p.m. 37 George St, Oxford.	I.E.E. District Meeting.	Dr. G.F. Gainsborough (Sec. of Institution)	The Institution Today and in the Future.
Thurs, 11 Jan, 7.30 p.m. Univ. of Reading	I.E.E. District Meeting	Prof. D.P. Howson (Univ. of Bradford)	Parametric Amplifiers
Thurs, 11 Jan, 8.30 p.m. Muel, Phys Lecture. Rm. 21 Banbury Rd, Oxford.	Seminar in Elementary Particle Physics	Dr. L. Stodolsky (Orsay)	Hadron-like Behaviour of High Energy Photons.

Social News

CHRISTIAN FELLOWSHIP. 12.35 p.m. Friday, 12 Jan. Lecture Theatre.

Dr. S. Mikolaaki, Theology Professor at New Orleans, U.S.A., will give a lecture on "Christianity in North America Today. All are welcome.

FILM SHOW. See "Internal Events" for details of this weeks show.

RECORD SOCIETY. 12.30 p.m. Tuesday 9 Jan, Lecture Theatre
Organ Music by J.S. Bach.

This programme, originally advertised for 12 December, contains five of Bach's Chorale Preludes, including "In dulci jubilo", also the superb Prelude & Fugue in F minor. The organ of University College, Oxford, is played by John Webster and it is hoped that a stereo version will be available.

RECREATIONAL SOCIETY NEWS. The Society is making steady progress and membership now stands at 173. It is hoped to solve the problem of land for a sports field during this year. When a piece of land is aquired, both money and physical effort will be required to get it in good condition and keep it that way. It is hoped that all those non-members who have requested this facility will become members of the society and of the various clubs as they are formed. As it is proposed that inter-site as well as inter-group matches be held, a representative Rutherford and Atlas Laboratory team will be required from each club.

The Chess Tournament is progressing well, news of the closing stages will be given in later Bulletins.

The Annual Darts Competition will be held a little earlier this year to avoid clashing with College examinations. A new organiser is required for this event and volunteers are asked to contact Miss J. Towers, R.20, Ext. 430 as soon as possible.

Members interested in winter sports holidays in Europe will be glad to know that arrangements have recently been agreed with the Armed Forces Winter Sports Association who offer facilities for beginners as well as experts covering skiing, bobsleigh and cresta riding, skating, curling and walking, - Mr. E.W. Clark, R8, Ext. 6290/519, for further information.

Dances - it is proposed to lay on a coach service (for which a charge will be made), for all future dances, so don't worry about the Drink/Drive rule. Again the call will be made for volunteers to help with the work involved.

The putting green which proved so popular last year will again be in use and a 3/- monthly ticket for members is to be introduced.

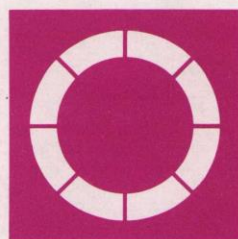
Finally, Miss J. Towers, R.20, Ext. 430 would like to hear from musicians as it is hoped to form a musical section.

P.S. "Many hands make light work", i.e. a lot of volunteers, each providing a little help would reduce the considerable effort now being made by the few. PLEASE THINK ABOUT IT!!!

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

Rutherford Laboratory.
5.1.68.

No 2/68
15 Jan 68



Rutherford Laboratory Bulletin

General News

RADIATION PROTECTION NOTICE - FILM BADGE ISSUES. Period 1 commenced 1 January. Colour Strip - RED for both $\beta\gamma$ and fast neutron films. Please check that you are wearing the current films and have returned all old films. Period 2 commences 29 January.

LOST PROPERTY. A Treasury Note has been found in the Foyer of R.L. Owner, please contact Mr. D. Williams, R.20.

PROBLEM ANALYSIS BY LOGICAL APPROACH. A request has been received for a copy of a paper by this title, allegedly written by someone at the Rutherford Laboratory. Would the author, or anyone with whom this title rings a bell, please contact Mr. A.P. Banford, R.20, Ext. 241.

W.E.A. EVENING CLASSES. The following classes will be held at Icknield School, Springfield Road, Wantage at 7.30 p.m.

- "The History of Art", 12 weeks, commencing Wed, 17 Jan.
- "History through Surnames", 12 weeks, commencing Mon, 22 Jan.
- "New Mathematics", 6 weeks, commencing Thurs., 29 Feb.

Further details from Mrs. J. Banford, 9 Foliat Drive, Wantage, Tel. 3181.

ADVANCED CRYOGENICS COURSE - Preliminary Notice.

A residential course on basic low temperature physics and cryogenic engineering will be held at University College, Oxford, 1-20 July 1968. Further information from H.F. Norris, R.20, Ext. 484.

ONE DAY SYMPOSIA. A series of one-day Symposia on "Cryogenics and its Applications" will be held at the Univ. of Southampton on Fridays of the Spring Term 1968, from 26 January to 1 March inclusive. These symposia are intended for the presentation and discussion of current ideas and techniques in cryogenic engineering. Further information from H.F. Norris, R.20, Ext. 484.

WELCH FOUNDATION SCHOLARSHIP. A scholarship of 5000 dollars is offered to a student or young scientist who wants to contribute to research in the field of vacuum science and technique. The scholarship is granted for a study of one year either at - "The James Frank Institute - The Univ. of Chicago" or at "The National Research Council Canada" or at "Istituto di Chimica Analitica - Univ. di Torino. Further details may be obtained from Mr. G.S. Grossart, R.2. Ext. 583.

CONFERENCES - Additions to the Institute of Physics & Physical Society list of conferences published in Bulletin No. 43/67, 20 Nov 1967.

- 27-29 March: "Low and Medium Energy Nuclear Physics", at Harwell.
- 30 Apr. - 1 May: Discussion Meeting - "Recent Developments in Flame Physics", at Imperial College.
- 29-31 Aug: "A.C. Properties of Superconductors & their Applications" at Univ. of Warwick.
- 3-6 Sept: 2nd Conference on "Solid State Devices", at Manchester.

Details from H.F. Norris, R.20, Ext. 484.

OVERSEAS VISITS. Dr. G.H. Stafford & Dr. R.J.N. Phillips, to CERN, 14-17 Jan & 14-18 Jan respectively, to attend Conference on High Energy Collisions of Hadrons.

Machine Schedules

P.L.A.

Date	Team	Experiment
15 - 17 Jan	Queen's Univ. Belfast and Westfield Coll.	(p,d) and (p,t) Reactions on B^{10}
18 - 21 Jan	Oxford Univ.	O^{16} (p,He ³) P^{15} and N^{14} (p, α) Al^{13} Reactions

NIMROD Cycle 1 (16.1.68 - 6.2.68) - Provisional.
High Energy Physics.

Team	Beam	Experiment	
Westfield/Imp. Coll.	X1/K9	(i) π^+ p Interactions, 1.1 - 1.9 GeV/c, Hydrogen Bubble Chamber	Data
Birmingham Univ.		(ii) π^+ p Interactions, 4 GeV/c, Hydrogen Bubble Chamber.	Data
AERE/QMC/RHEL	T14	A Study of Σ^- Beta Decay	Setting up
Univ. Coll. London	K8	K^- p Elastic Scattering Studies	Setting up
Oxford Univ.	K108	Studies of Neutral Final States in K^- p Interactions	Setting up
Birmingham Univ.	X2/K12	Kp Elastic Scattering	Setting up
RHEL/Cambridge U.	X2/K13	Test of $\Delta S = \Delta Q$ Rule	Setting up
RHEL/Westfield Coll.	X2/K14	Decay Parameters of Σ^+	Setting up

Internal Events

Mon, 15 Jan, 11.45 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. L. Stodolsky (Orsay)	Coherence and Interference Effects in High Energy Reactions.
Wed, 17 Jan, 12.40 p.m. Thurs, 18 Jan, 1.15 p.m. Lecture Theatre	Film.	"Miracle in the Desert : The Story of Hanford", a 28 minute, U.S.A.E.C. colour film.	

The story begins in 1943 with the construction of the secret Hanford nuclear plant; the film goes on to show additions and improvements made to plant facilities in the past war years. Hanford's broad research efforts in the fields

of metallurgy, radiation effects, biology, aquatic biology, atmospheric physics and other peaceful uses of atomic energy are summarized. Various steps in the erection of plutonium by transmutation of uranium atoms and its chemical separation from uranium are shown in scenes made in production buildings.

Mon, 22 Jan, 11.45 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. T.W. Quirk (Oxford)	The Positron Spectrum in $K_{\alpha 3}$ Decay.
External Events			
Wed, 17 Jan, 4.45 p.m. Royal Fort, Bristol.	Physics & Geophysics Colloq.	Dr. J.V. Jelley (Harwell)	Radio Emission from Extensive Cosmic - Ray Showers.
Thurs, 18 Jan, 4.15 p.m. Univ. Coll. London	Elementary Particle Physics Seminar	Dr. G. Manning	Current Status of CP Violating Experiments
Thurs, 18 Jan, 8.30 p.m. Phys. Lecture Rm. 21 Banbury Rd, Oxford	Seminar in Elementary Particle Physics	Prof. R.H. Dalitz	Baryonic Resonances.
EVENTS AT AERE			
Tues, 16 Jan, 2 p.m. Conf. Rm. B.8.9	Theor Phys. Div Seminar	Dr. V. Heine (Cavendish Lab)	Quantum Theory of the Structures of Metals
Thurs, 18 Jan, 3.30 p.m. Conf. Rm. H.8.	Nucl. Phys. Div. Colloq.	Dr. A.T.G. Ferguson	Studies in the s, d, shell using the (d,n) Reaction.
EVENT AT THE ATLAS LAB			
Tues, 16 Jan, 2.30 p.m. large Conf. Rm.	Talk	David F. Hendry (U. of London)	'BCL'. (BCL is a language with facilities for defining complex data structure that has been used at London as a Compiler Generator System).

Social News

RECORD SOCIETY. 12.30 p.m. Tuesday, 16 Jan, Lecture Theatre

"Come the Day" by The Seekers.

A selection of items by this very popular group.

CHRISTIAN FELLOWSHIP. Please note change of venue for lecture this Friday, 12 Jan, to R.I. Conference Room at 12.35.

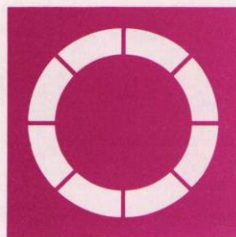
12.30 p.m. Friday, 19 Jan, Conf. Rm. R.12.

"Sin - Separation from God", Bible Study, led by Dennis Williams of Personnel Group.

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

Rutherford Laboratory.
12.1.68.

No 3/68
22 Jan 68



Rutherford Laboratory Bulletin

General News

SUMMER SCHOOL. The Summer School on Plasma Physics is to be held again at the Culham Laboratory from 15-26 July. Closing date for applications is 11 March. Brief information on this school is available from H.F. Norris, R20, Ext. 484 but for full details and application forms please apply to "The Summer School Office, Culham Laboratory, Abingdon, Berks.

RADIATION PROTECTION NOTICE. It is Period 1. Colour Strip - RED for $\beta\gamma$ and fast neutron films. Next film issue - Monday, 29 January.

OVERSEAS VISIT. Mr. J.A. Fox, to CERN, 24-31 January, for discussions.

Machine Schedules

NIMROD Cycle 1 (16.1.68 - 6.2.68)

High Energy Physics (K9, K4, K8, K10S, K12, K13 & K14)

Full details of Cycle 1 were given in Bulletin No. 2/68.

Date	Team	Experiment
22-23 Jan.		Maintenance
24-26 Jan.		Accelerator Physics
27 Jan - 1 Feb.	RHEL & QMC2	(p,n) Reactions by Time of Flight Method.

Internal Events

Mon, 22 Jan. 11.45 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. T.W. Quirk (Oxford)	The Positron Spectrum in K_{e3} Decay
Mon, 22 Jan. 2.15 p.m. Lecture Theatre	Nimrod Users Meeting		
Wed, 24 Jan. 11 a.m. Lecture Theatre	H.E.P. Disc Grp.	Dr. R.J.N. Phillips and Dr. D. Bugg	Report on the CERN Conference on High Energy Scattering.
Wed, 24 Jan. 12.40 p.m. Thurs, 25 Jan. 1.15 p.m. Lecture Theatre	Film	"Founded on Science", 25 min, colour.	

This film describes the Wimpey Central Laboratory which exists to provide the means of obtaining and reporting on information needed by engineers, architects and contractors for design and quality control purposes.

The modern construction industry demands the backing of such a laboratory and this film shows the progress of Britain's largest contractor in keeping abreast of science, development and technology.

Mon, 29 Jan. 11.45 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. F.M. Russell	Neutrinos, Muons and Mica.
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External Events

Mon, 22 Jan. 4.15 p.m. Queen Mary College	Theor. Phys. Seminar	Prof. D. Ruelle (Paris)	Lattice Systems and the Gibbs Phase Rule.
Mon, 22 Jan. 5 p.m. Univ. of Reading	Colloq.	Dr. W.R. Hunter (Imp. Coll.)	The Measurement of Optical Constants in the Vacuum Ultra Violet.
Mon, 22 Jan. 7 p.m. Rugby Coll. of Eng. Tech.	Inst. of Maths Lecture	Prof. C. Lanczos (Dublin Inst. of Advanced Studies)	The Input-Output Relation of Linear Networks.
Wed, 24 Jan. 4.45 p.m. Royal Fort, Bristol.	Physics & Geo. Physics Colloq.	Dr. W.M. Gibson (Bristol)	Baryon Resonances.
Thurs, 25 Jan. 2.30 p.m. Clarendon Lab. Oxford.	Low Temp & Solid State Phys. Seminar	Dr. R.J. Birgenau (Yale Univ)	Electric Multipole Interactions between Rare Earth Ions
Thurs, 25 Jan. 4.15 p.m. Clarendon Lab. Oxford.	Theor. Phys. Seminar	Dr. M.J. Zuckerman (Imp. Coll.)	Superconductivity in Dilute Alloys.
Thurs, 25 Jan. 4.15 p.m. Univ. Coll. London	Elementary Particle Physics Seminar	Dr. T. Osborne	Bound-State Spectrum of the Three-Body Problem
Fri, 26 Jan. 4.15 p.m. Clarendon Lab. Oxford.	Colloq.	Dr. W. Hayes (Clarendon)	Magneto Optical Investigations in Solids

EVENT AT DARESBURY

Tues, 30 Jan. 2 p.m. Lecture Room.	Daresbury Lecture Series	Dr. P. Marin (Orsay)	Present Experiments with the Orsay Electron Positron Colliding Beams
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EVENTS AT AERE

Tues. 23 Jan. 2 p.m. Conf. Rm. B. 8.9.	Theor. Phys. Div. Seminar	Dr. C.F. Clement	Sum Rules for Vertex Functions.
Thurs, 25 Jan. 3.30 p.m. Conf. Rm. H.8	Nuclear Phys. Div. Colloq.	Dr. D. Wilmore	The Compound Nucleus Contribution to Stripping Reactions.

Social News

RECREATIONAL SOCIETY NEWS - CHESS CLUB TOURNAMENT. With only two rounds to go the pressure is really on. Since the last report at the end of November the positions at the top have been reversed. Bill Turner (High Field Bubble Chamber Group) who at that time was one point behind the joint leaders is now top of the table with 11 points. Noel Stewart (Westfield Coll.) has been joined by John Davies (Birmingham Univ.) in second place with 10 points each. There are now three people in third place, Alan Oxley (Track Analysis Group), Mike Newman (Beam Physics Group) and Lindsay Duncan (Nimrod, General Physics Group), all on the 9 point mark. The tournament is due to end in early February and with several new names appearing in the top three positions the result is still very open.

CHRISTIAN FELLOWSHIP. 12.30 p.m. Friday, 26 Jan, Conf. Rm, R.12. Prayer Meeting led by Mr. T.J. Packer of Nimrod Engineering Department. All are welcome.

RECORD SOCIETY. 12.30 p.m. Tuesday 23 Jan, Lecture Theatre.

Tchaikovsky, "1812 Overture" & "Caprice Italien" played by the
Minneapolis Symphony Orchestra conducted by Antal Dorati.

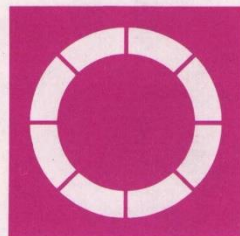
It is hoped to play a stereo version of the 1812 Overture. The symphony orchestra is augmented by a brass band, bronze cannon and real bells. The 1812 Overture which Tchaikovsky composed in 1880, commemorates the liberation of the Russians from the Napoleonic invasion.

The "Caprice Italien" is another brilliantly colourful work composed at the same period and is scored for a very full orchestra.

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

Rutherford Laboratory
19.1.68.

No. 4/68
29 Jan 68



Rutherford Laboratory

Bulletin

General News

OBITUARY NOTICE. We deeply regret to announce the death of Mr. A.W. Amis of the P.L.A. Engineering Group on Monday, 22 January. Arthur Amis who was aged 42 joined the Laboratory in January 1961. He was a Senior Operator on the P.L.A. where his skill & resourcefulness were highly valued. Our deepest sympathy is extended to his wife & family.

QUEST. The first edition of the S.R.C. house journal "Quest" is expected to be distributed during the current week, and will no doubt be pulled to pieces over many a cup of tea or coffee. Your comments and criticisms are requested, good & bad, so please send them, including letters to your local correspondent, H.F. Norris, Bldg. R20, Ext. 484 before 9 February.

SUGGESTION AWARDS. At the meeting of the Suggestions Awards Committee on Wednesday, 17 January, the following awards were made:-

- £3 to C. Gascoigne - Safety in R9.
- £3 to A. Richards - Modification to milling machine guard in R52.
- £2. 10. 0. to A. Richards - Modification to access ladder in the injector room.
- £2. to N. Haycox - Road Safety.
- £1. 10. 0. to L. Denton - Modification to heating in R2.
- £1. 10. 0. to Mrs. E.M. Harden - Delivery of film cases.

VISITORS. Forty-five students from the Nuclear Physics Laboratory, Oxford will visit the Laboratory on Saturday, 3 February.

RADIATION PROTECTION NOTICE. Film Badge Issues. Period 2 commences Monday, 29 January. Colour Strip - GREEN for both $\beta\gamma$ and fast neutron films.

Please change your films promptly and return all old ones as soon as possible. Any enquiries to Miss J.A. Towers, Ext. 430.

HARWELL POST GRADUATE EDUCATION CENTRE. Details have now been received of the 1968 programme of courses at the P.G.E.C. Further details from H.F. Norris, Rm. 21. R.20. Ext. 484.

ADVANCED CRYOGENICS COURSE. Further details of the course, to be held in Oxford, 1-20 July, and application forms, are now available from H.F. Norris, R.20, Ext. 484.

OVERSEAS VISITS. Dr. G.H. Stafford to CERN, 29-30 Jan, to attend meeting of the European Physical Society.

Mr. I. Daly to CERN, 30 Jan - 1 Feb, to discuss expansion systems for bubble chambers.

Machine Schedules

NIMROD Cycle 1 (16.1.68 - 6.2.68)
High Energy Physics (K9, K4, K8, K10S, K12, K13 & K14)
Full details of Cycle 1 were given in Bulletin No. 2/68.

P.L.A.

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
29 Jan - 1 Feb.	RHEL & QMC 2	(p,n) Reactions by Time of Flight Method
2 - 10 Feb.	King's College, London.	Elastic and Inelastic Scattering from Ar^{40} at 30 and 50 MeV.

Internal Events

Mon, 29 Jan, 11.45 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. F.M. Russell	Neutrinos, Muons & Mica
Wed, 31 Jan, 11 a.m. Conf. Rm, R.1.	H.E.P. Disc. Group	Dr. A. Donnachie (Glasgow)	Remarks on the Photo and Electro-Production of Mesons.
Thurs, 1 Feb. 12.40 p.m. Fri, 2 Feb. 1.15 p.m. Lecture Theatre		Film	The Bank of England at Work, a 35 minute colour film.
(PLEASE NOTE CHANGE OF DAYS FOR THIS WEEK ONLY)			

The Bank of England is well known to everyone but how many know what the Bank does and why. Explanations of the various aims and activities are given personally by the Governors and senior executives. Scenes never previously filmed are included, such as the production of bank notes at the Banks' own printing works, the daily fixing of the gold price at Rothschilds, and the Bank's foreign exchange experts at work in the Dealing Room.

Mon, 5 Feb, 11.45 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. G. Shaw	Internal Symmetries of the Electromagnetic Current : Experimental Tests.
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External Events

Mon, 29 Jan, 4.15 p.m. Queen Mary College.	Theor. Phys. Seminar	Dr. J.S. Bell (CERN)	Kinds of Commutator
Wed, 31 Jan, 4.45 p.m. Royal Fort, Bristol	Phys. & Geo Phys. Colloq.	Dr. M. Hart (U. of Bristol)	Precision Lattice Parameter Measurements

Thurs, 1 Feb, 2.30 p.m. Clarendon Lab. Oxford.	Low Temp & Solid State Phys. Seminar	Prof. B. Gale Dick (U. of Utah and Technische Hochschule, Munich)	Relaxation of Dipolar Centres in Alkali Halides
Thurs, 1 Feb. 4.15 p.m. Clarendon Lab. Oxford	Theor. Phys Seminar	Dr. J.C. Taylor	A Review of Current Algebra
Thurs, 1 Feb, 8.30 p.m. Phys. Lecture Rm, 21 Banbury Rd, Oxford.	Seminar in Elementary Particle Physics	Dr. U. Maor (Weizmann Institute)	Regge Pole Analysis of Inelastic Two-Body Reactions.
Fri, 2 Feb. 4.15 p.m. Clarendon Lab. Oxford.	Colloq.	Dr. N.W. Tanner (Nucl. Phys. Lab. Oxford)	The Great Pion Mystery.

EVENTS AT DARESBURY

Tues, 30 Jan, 2 p.m. Lecture Rm.	Daresbury Lecture Series	Dr. P. Marin (Orsay)	Present Experiments with the Orsay Electron Positron Colliding Beams.
Tues, 6 Feb. 2 p.m. Lecture Rm.	Daresbury Lecture Series	Prof. E. Leader (Westfield Coll.)	Conspiracy, Evasion and Daughters - an Elementary Review.

EVENTS AT AERE

Tues, 30 Jan, 2 p.m. Conf. Rm, Bldg. 8.9	Theor. Phys. Seminar	Prof. R.L. Orbach (Imp. Coll.)	Phonon Lifetimes and Paramagnetic Processes in Solids.
Thurs, 1 Feb. 3.30 p.m. Conf. Rm, H.8.	Nucl. Phys. Div. Colloq.	Dr. W.M. Currie	The Doppler Shift Attenuation Method for Measuring Nuclear Lifetimes.

Social News

RECORD SOCIETY. 12.30 p.m. Tuesday, 30 January, Lecture Theatre

"European Tour, Volume 1", by that very "cool" group, the Modern Jazz Quartet.

* * * * *

We shall be glad to hear from anyone who is willing to lend records of Grand Opera, Verdi, Wagner etc. for playing at these lunchtime concerts.

CHRISTIAN FELLOWSHIP. 12.30 p.m. Friday, 2 February, Conf. Rm, R.12.

Bible Study - "Repentance and Confession", led by Mr. E.J.D. Newbold.

All are welcome.

OBSERVATIONAL ASTRONOMY. The British Astronomical Association is holding a residential week-end course for those needing guidance in the observational side of Astronomy. The course will be held at the King Alfred Training College, Winchester Hants from Friday evening, 19 April to Sunday tea-time, 21 April. Closing date for applications is 31 March although later bookings may be accepted. Further details from H.F. Norris, R.20, Ext. 484.

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

Rutherford Laboratory
26.1.68.