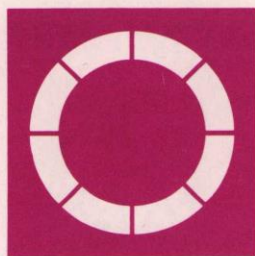


No. 1/69
6 Jan. 68



Rutherford Laboratory Bulletin

General News

HERE IS THE WEATHER FORECAST FOR.....Familiar words to everyone. Less familiar is how such a forecast is produced. In the next Rutherford Laboratory Lecture at 3.15 p.m., Thursday, 9 January in the Lecture Theatre, Dr. B.J. Mason, F.R.S. will be giving the answers when he talks on "Weather Forecasting in the Satellite and Computer Age".

Dr. Mason is Director General of the Meteorological Office and also Honorary General Secretary of the British Association for the Advancement of Science. He was previously professor of physics at Imperial College.

SUMMER SCHOOL. A Summer School is to be held at Les Houches, France from 30 June to 23 August 1969, on Theoretical Physics, in connection with the relationship of physics to various biological problems.

This session is directed at young Theoretical Physicists and experimentalists who wish to understand problems of bio-physics, bio-chemistry and molecular biology. Closing date for application - 15 March 1969. Further details from H.F. Norris, R.20, Ext. 484.

VACUUM TECHNOLOGY COURSE. Please note change of date for this course to 20-24 January 1969. Other details as shown in Bulletin No. 45/68.

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

Avometer, Model 8 - Ser/No. 143646-862 (the name C.R. Walters is painted on the back of the meter).

Anyone with information on the present whereabouts of this instrument is asked to contact Mr. C.R. Walters, Ext. 252/288.

RADIATION PROTECTION NOTICE - FILM ISSUE. Period 1 commenced Monday 30th December. Colour Strip - ORANGE FOR $\beta\gamma$ and fast neutron films. Please check that you are wearing the correct film.

COMPUTER SYMPOSIUM. A one-day Seminar on Small Computers for Data Acquisition will be held by Elliott Automation Ltd. on Wed., 15 Jan. in the Lecture Theatre. Further details in next weeks' Bulletin.

OVERSEAS VISIT. Dr. P.K. Kabir, to Geneva, 7-18 Jan., to attend Topical Conference on Weak Interactions and for discussions at C.E.R.N.

Machine Schedules

NIMROD Cycle 1 (1969) - (31.12.68-21.1.69.)

Machine Physics: High Energy Physics (K9, K12, K13, K14, π 7, K10S and P71)
Full details of Cycle 1 were given in Bulletin No. 46/68.

P.L.A.

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
6-13 Jan.	Birmingham U.	Polarization Studies

Internal Events

There will be no Nimrod lecture on Monday 6 January.

Wed. 8 Jan. 11 a.m. Conf. Rm., R.1	H.E.P. Disc. Grp.	Dr. J.C. Taylor (Oxford)	Aspects of Regge Daughters.
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Wed. 8 Jan. 12.40 pm Thurs. 9 Jan., 1.15 pm Lecture Theatre.	Film	"See you at the Pillar", a 20 mins. award winning film.
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The "Pillar" was a famous old Dublin pub no longer in existence. This film which takes an amusing look at Dublin shows some of the famous buildings but mainly concentrates on Dubliners in all walks of life. The dialogue quotes from famous literary sons of the City, Shaw, Wilde, Swift and O'Casey. Altogether a light hearted and amusing film which will bring some cheer to the New Year.

Thurs. 9 Jan. 3.15 pm <u>Lecture Theatre</u>	Rutherford Laboratory Lecture	Dr. B.J. Mason F.R.S. (Director General, Met. Office)	Weather Forecasting in the Satellite and Computer Age. (See Gen. News)
Mon. 13 Jan. 11.30 am Lecture Theatre	Nimrod Lecture Series	Dr. N.E. Booth (RHEL)	Scattering from Polarized Protons at High Energies.

Social News

CHRISTIAN FELLOWSHIP 12.30 pm, Fri., 10th Jan. P.L.A. Conf. Rm., R.12.

Every Man a Bible Student - "Law Blesses the Good - Grace saves the Bad". Mr. D.N. Wilson leads the Bible Study on "Grace".

Bring your friends.

RECORD SOCIETY. Tues. 7 Dec. 12-30 p.m., Lecture Theatre.

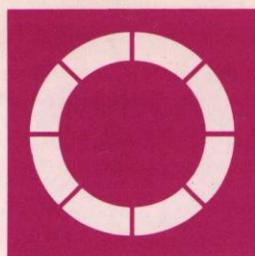
"Latin Affair" George Shearing and Quintet playing a mixture of South and North American Rhythms.

George Shearing, the blind pianist, went to America many years ago since when his sophisticated style of playing has become well known and very popular.

Rutherford Laboratory
3.1.68.

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

No. 2/69
13 Jan 69



Rutherford Laboratory Bulletin

General News

EXTERNAL LECTURES AT OXFORD - THEORY OF NUCLEAR REACTIONS. Dr. A.M. Lane of Harwell will be giving a series of lectures in Oxford next term on "Line Broadening - Analogues and Doorways". The Lectures will be held in the Lecture Room, 21 Banbury Road, at 2.30 p.m. on Mondays beginning 20th January.

RADIATION PROTECTION NOTICE - FILM ISSUES. It is period 1. Colour strip - ORANGE for $\beta\gamma$ and fast neutron films. Please check that you are wearing the correct films.

MISSING. A print from the original of drawing CR.060050, schematic diagram of beam transport elements interlock, which had important pencilled annotations, has been lost. Would finder please send it to Mr. C.H. Booth, Rm. 1.26, Building R.25.

DISPOSAL OF SURPLUS EQUIPMENT. A Benson Lehner Graph Plotter, Type ED purchased in 1963 has become surplus to the requirements of the Oliver Lodge Laboratory of the University of Liverpool and is available for disposal, free of charge. Further information from H.F. Norris, R.20, Ext: 484, by 16th January.

W.E.A. WANTAGE BRANCH. The following classes will be held at Icknield School, Springfield Road, Wantage:-

"China To-day", 12 week course commencing Mon., 13 Jan. at 7.30 p.m., class fee 24/-.

"Modern Drama", 10 week course commencing Thurs. 16 Jan. at 7.30 p.m., class fee 20/-.

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

QUEST. The January issue will be published shortly. It will contain a Questionnaire which will only take a few minutes to complete. Please spare those few minutes and return to your local correspondent, H.F. Norris, Building R.20. If you are very short of time just answer those questions where a tick is sufficient.

EXTERNAL COURSES. The Borough Polytechnic, London, S.E.1. have published details of the following courses:-

"Transistors in Communication Circuits", nine lectures, commencing 21 Jan. 6.30 - 8.30 p.m.

"Advances in Microwave Applications of Semiconductors", ten lectures commencing 15 Jan. 2.30 - 4.30 p.m.

Further details from Mr. E.J.D. Newbold, Personnel Branch, Building R.20, Ext: 585.

UNCLAIMED MAIL. Anyone recently in touch with the German firm of W. Sohngen re. plastic insulating sheet is asked to contact B.E. Kingdon, R.20, Ext: 6297.

OXFORD KINEMATICAL TABLES. Copies of this publication (13 volumes per set) are available on issue to members of staff and University visitors. Further information may be obtained from B.E. Kingdon, R.20, Ext: 6297.

OVERSEAS VISITS. The following will be attending the Conference on Weak Interactions at CERN:-

Dr. G. Manning	10-19 Jan.	Dr. N.H. Lipman	13-22 Jan.
Dr. A. Astbury	13-17 Jan.	Dr. V.Z. Peterson	12-17 Jan.
Dr. H.F. Fisk	12-21 Jan.		

Mr. K.H. Davies to Oerlikon Ltd., Zurich, 13-14 Jan. for discussions on magnet coils.

Mr. J.D. Lawson to CERN, 13-15 Jan. to attend meeting of Working Party on Collective Ion Accelerators.

Mr. P.J. Litchfield, to Saclay, Paris, 16-17 Jan. for discussions on K^0 survey experiment.

Dr. T.G. Walker to Geneva, 16-21 Jan. to attend meeting of experimental group.

Machine Schedules

NIMROD Cycle 1 (1969) - (31.12.68. - 21.1.69.)

Machine Physics: High Energy Physics (K9, K12, K13, K14, π 7, K10S and P71). Full details of Cycle 1 were given in Bulletin No. 46/68.

P.L.A. The machine will be shut-down for one week, 14 - 20 Jan.

Internal Events

Mon. 13 Jan, 11.30 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. N.E. Booth (RHEL)	Scattering from Polarized Protons at High Energies
Wed. 15 Jan. 11 a.m., Conf. Room, R.1.	H.E.P. Disc. Grp.	Dr. Sy. Lo	Chou-yang Models and Diffractive Excitation Processes
Wed. 15 Jan., 2 p.m. Conf. Room, R.12	P.L.A. Seminar	Prof. J.S. Blair (U. of Washington Seattle/Surrey)	Excitation of Isobaric Analogue Resonances

Wed. 15 Jan., 9.30 a.m. - 4.30 p.m., Lecture Theatre. One-day Seminar by Elliott Automation Ltd., on Small Computers for Data Acquisition and Process Control (with particular reference to the 905 Computer and others in the 900 series). Further details from B.E. Kingdon, R.20, Ext: 6297.

Wed. 15 Jan, 12.40 p.m. Film "Skid Sense", 15 mins.
Thurs. 16 Jan, 1.15 p.m. Lecture Theatre

At this time of year drivers expect and too often experience bad road conditions. Result - a skid, may be harmless but sometimes resulting in a bad crash. What causes a vehicle to skid? How does one control a skid? Dunlop have made this film as a contribution to the problem of road safety, with the co-operation of the Metropolitan Police Driving School at Hendon.

Mon., 20 Jan. 11.30 a.m. Lecture Theatre Nimrod Lecture Series Dr. M. Derrick (Argonne Nat. Lab.) Boston Mass Spectrum near 1 GeV.

External Events

Mon. 13 Jan., 4.15 p.m. Clarendon Lab., Oxford.	Elementary Particle Theory Seminar	Prof. A. Anselm (IOFFE Inst., Leningrad and Westfield Coll.)	Topics in Regge Pole Theory
Mon. 13 Jan., 6 p.m., Savoy Place, London.	IEEE Lecture	Dr. I.M. Mackintosh	Microelectronics, the Next Decade
Mon., 13 Jan., 5 p.m. Univ. of Reading	Colloq.	Prof. D.B. Fitchen (Cornell Univ.)	Raman and Vibronic Spectra of Semiconductors
Thurs. 17 Jan., 7.30 p.m. Univ. of Reading	I.E.R.E. Branch Meeting	G.C. Tarr (Elliott-Automation Space and Advanced Military Systems)	Modern Tools of System Engineering

EVENT AT AERE

Thurs. 16 Jan., 3.30 p.m. Conf. Room, H.8.	Nucl. Phys. Colloq.	Dr. Sven Bjorholm (Neilsbohr Inst. U. of Copenhagen)	Consequences of a Two Humped Fission Barrier
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Social News

CHRISTIAN FELLOWSHIP. Come and join us at the Christian Fellowship on Friday, January 17th in the P.L.A. Conference Room at 12.30 p.m.

Come and hear Dr. Billy Graham, recorded whilst speaking to "Young Teens" from 'God's Word' on 'David and Goliath'.

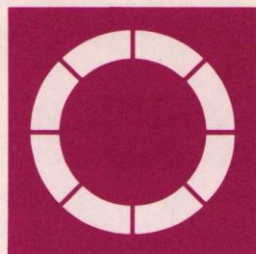
RECORD SOCIETY. 12.30 p.m. Tues. 14 Jan, Lecture Theatre.

'The Music of Eric Coates'. A short concert with some items conducted by the composer himself including 'The Merry-makers' Overture, the waltz 'At the Dance', the 'Man from the Sea' and the 'London Suite' which ends with the immortal Knightsbridge March.

Rutherford Laboratory
10.1.69.

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

No. 3/69
20 Jan 69



Rutherford Laboratory Bulletin

General News

OBITUARY NOTICE. We deeply regret to announce the death of Mr. W. W. Woodall, Head of General Administration on Monday, 13 January. Bill Woodall who was aged 50, joined the Laboratory in December 1960 having previously worked in Nigeria as a senior member of the Colonial Administrative Service. He will be sadly missed by his many friends and colleagues both at the Laboratory and on the County Council. Our deepest sympathy is extended to his wife and family.

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

Avometer Model 8 Ser./No. 140006-C-562.

Anyone with information on the present whereabouts of this instrument is asked to contact Inventory Section, R.25, Ext.570.

RADIATION PROTECTION NOTICE - FILM ISSUES. It is Period 1. Colour Strip - ORANGE for $\beta\gamma$ and fast neutron films. Due to the use of the polarised proton source at the P.L.A., no fast neutron films will be issued to P.L.A. personnel for the period commencing 27 January. Will wearers at the P.L.A. please retain their fast neutron film holders but return any film they have.

All enquiries on film issues should be made to Mrs. J. A. Coates (née Towers), R.20, Ext. 430.

EXTERNAL COURSES ON VACUUM TECHNOLOGY 1969. Details have been received from Edwards Vacuum Components Ltd., Crawley, Sussex, of their programme of training courses for 1969. The courses cover all aspects of basic vacuum practice and are mainly of one week's duration. Anyone wishing to attend one of these courses should contact Mrs. S. Fones, R.20, Ext.495 for further details. Early application is necessary as these courses are always oversubscribed.

COURSES AT OXFORD COLLEGE OF TECHNOLOGY. The College have announced details of a series of eight lectures by visiting specialists on "Topics from Systems Analysis", to be given on Thursday evenings, 7 - 9 p.m., commencing 6 February. The fee is five shillings for each lecture.

Also announced is an eight week course of lectures on "Statistical Bases of Experimental Designs", covering the principles and applications of the Analysis of Variance technique in Randomised Block, Nested and Factorial Designs together with an introduction to the Analysis of Covariance. These lectures will be given on Wednesday evenings, 7-9 p.m. commencing 5 February. Course fee - £2.

Further information on these series from H. F. Norris, R.20, Ext. 484.

OVERSEAS VISITS. Dr. N. E. Booth, to CERN, 16-22 Jan., to attend meetings with various groups regarding K13 experiment.

Mr. G. B. Stapleton, to CERN, 19-22 Jan., to participate in a radiation damage dosimetry experiment with the CERN P.S.

Mr. C. M. Solomonides, to CERN, 19 Jan. for two weeks, to have discussions with magnet spark chamber programmes on the use of their helix following programmes for the π experiment.

Dr. G. H. Stafford, to CERN, 23 Jan., to attend meeting of Organising Committee for Florence meeting of European Physical Society.

Machine Schedules

NIMROD Cycle 2 (21.1.69 - 11.2.69)
Machine Physics.
High Energy Physics.

<u>Team</u>	<u>Beam</u>	<u>Experiment</u>	
Birmingham/RHEL	X1/K9	4 GeV/c π Interaction in Deuterium.	Setting up and Data.
Oxford U.	K10S	Study of $K^- p \rightarrow$ Neutral Final States for K^- Momenta in the Range 0.6 - 1.8 GeV/c.	Data.
UCL/RHEL	K8	$K^- p$ Differential Cross-Sections 0.85 - 2.2 GeV/c.	Data.

P.L.A.

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
20 - 28 Jan.	Q.M.C. and Queen's U. Belfast.	Measurement of 'A' Parameter in (p-d) Elastic Scattering.

Internal Events

Mon., 20 Jan.,
11.30 a.m., Lecture
Theatre.

Nimrod
Lecture
Series

Dr. M. Derrick
(Argonne Nat.Lab.)

Boston Mass Spectrum near 1 GeV.

Wed., 22 Jan.,
11 a.m. Conf.
Rm. R.1

H.E.P.
Disc.
Grp.

Dr. G. Manning

A Proposal to Search for the Intermediate Boson, using Intersecting Storage Rings.

Wed., 22 Jan., 12.40 p.m.
Thurs., 23 Jan., 1.15 p.m.
Lecture Theatre

Film

'Carbon', a 24 m. colour film from the
Morgan Crucible Co. Ltd.

This is a beautifully photographed film, which has won a number of international awards. It is the first film ever to attempt a more or less complete survey of the properties and uses of the incredibly complex and flexible element carbon. It is both highly informative and entertaining, using a number of interesting systems and techniques. One of which is believed to be unique shows a substantial diamond being reduced at an extreme high temperature and in a special atmosphere to a small heap of graphite.

Mon., 27 Jan.,
11.30 a.m., Lecture
Theatre

Nimrod
Lecture
Series

Dr. Lohrman
(DESY, Hamburg)

Photoproduction Experiments at DESY.

External Events

Mon., 20 Jan.,
4.15 p.m., Queen
Mary Coll.

Theor.
Phys.
Seminar

Dr. V. Heine
(Cambridge)

Quantum Theory of Cohesion and Structure
of Metals.

Mon., 20 Jan.,
4.15 p.m., Clarendon
Lab., Oxford.

Elementary
Particle Theory
Seminar

Dr. L. A. P. Balazs
(UCLA, and I.C.
London)

An Approach using a Relativistic Equivalent
and Finite Energy Sum Rules.

Mon., 20 Jan.,
5 p.m., Univ.
of Reading.

Colloq.

Dr. A. D. Yoffe
(Cambridge)

Electron Energy Levels and Structural
Aspects of Semiconductors.

Mon., 20 Jan.,
5 p.m., Univ.
of Bristol

Phys. and
Geo-Phys
Colloq.

Dr. G. R. Booker
(Oxford)

Applications of the Scanning Electron Micro-
scope and Related Techniques to the Examination
of Metals and Semiconductors.

Wed., 22 Jan.,
2.30 p.m. Univ.
of Manchester.

Theor.
Phys.
Seminar

Dr. P. Dean
(N.P.L.)

Atomic Vibrations in Glasses.

Wed., 22 Jan.,
7 p.m., Bath
Univ. of Tech.

Inst. of
Maths
Meeting

Prof. G. B. Wetherill
(Bath)

Statistical Topics Arising from the Strength
Testing of Water Pipes.

EVENTS AT ATLAS AND AERE.

Tues., 21 Jan.,
2 p.m. Conf.
Rm., Bldg. 8.9

Theor.
Phys.
Seminar

Dr. J. Pendry
(Cambridge)

Choice of Muffin-Tin Potential.

Tues., 21 Jan.,
2.30 p.m., Conf.
Rm., Atlas Lab.

Talk

Dr. L. Fox
(Oxford)

How to Get Meaningless Answers in Scientific
Computation.

Social News

CHRISTIAN FELLOWSHIP. A STORY TO TELL - about God in their life, or - their first meeting with his Son. A time of improptu sharing of experiences, strictly limited to two minutes a piece.

Come and listen or join in The Christian Fellowship, P.L.A. Conf. Rm., Fri., 24 Jan at 12.30 p.m.

RECORD SOCIETY. 12.30 p.m., Tues., 21 Jan., Lecture Theatre.

Beethoven = Symphony No. 7 in A.

A stereo recording of this mighty work, played by the London Symphony Orchestra, conducted by Josef Krips. All welcome.

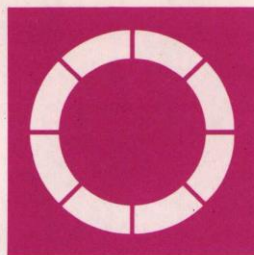
Rutherford Laboratory

17.1.69

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

No. 4/69
27 Jan 69



Rutherford Laboratory Bulletin

MEMORIAL SERVICE. A memorial service for Mr. W. W. Woodall will be held in All Saints Church, North Moreton at 2.30 p.m. on Saturday 1 February.

General News

RADIATION PROTECTION NOTICE - FILM ISSUES. Period 2 commences Monday, 27 January. Colour Strip - BROWN for $\beta\gamma$ and fast neutron films. Please change your films promptly and return all old films.

QUEST QUESTIONNAIRE. Your local correspondent has been overwhelmed by the flood of replies - all 18 of them!! You, the reader is the only person who can provide the information which is necessary to gauge the usefulness of the journal and to plan future issues to appeal to the majority. When judging the success or otherwise of Quest, please remember that it is not a Laboratory journal but has to cover the whole of the S.R.C.

SUMMER SCHOOL. The National Committee for Mathematics of the Royal Irish Academy is holding a Summer School in Group Representations and Quantum Theory, in Trinity College, Dublin from 7-18 July 1969. Closing date for applications - 1 April. Registration fee - £5. Further details and application forms from H. F. Norris, R20, Ext 484.

TRANSDUCER INSTRUMENTATION SYSTEMS AND COMPONENTS EXHIBITION at the United States Trade Center, 57 St James' St London, 10-14 Feb. Further details and tickets from H. F. Norris, R20, Ext 484.

EDWARDS TECHNOLOGY WEEKS 1969. Edwards High Vacuum International Ltd have announced details of the programme for the first of their Technology Weeks from 4-7 Feb at the Exhibition Suite, Connaught Rooms, Great Queen St, London, W.C.1. A programme of talks and demonstrations will be given on 1/ Aspects of Vacuum Coating and 2/ Aspects of Mass Spectrometry. Further information from H. F. Norris, R20, Ext 484.

ROYAL SOCIETY. A programme of meetings for January, February and March has been received, and can be seen in Rm. 42, R20.

OVERSEAS VISITS. Mr. J. W. Burren and Mr. P. M. Girard, to CERN, 26-27 Jan, for discussions on HPD programmes, future large computing systems and to attend meeting to standardise bubble chamber data analysis formats. Mr. L. Phillips, Mr. T. C. Adams, Mr. E. F. Towndrow, Mr. P. O'Brien and Mr. W. Russett to CERN, 27 Jan, for installation of beam line equipment for "Epistle" experiment.

Mr. J. A. Fox, to CERN, 29 Jan - 1 Feb for discussion on Static Power Supply applications.

Mr. R. Sheldon to Oerlikon, Zurich 30 Jan - 2 Feb for examination and Study of radiation resistant coils for Daresbury.

Machine Schedules

NIMROD Cycle 2 (21.1.69 - 11.2.69.)
Machine Physics: High Energy Physics (K9, K10S and K8)
Full details of Cycle 2 were given in Bulletin No. 3/69.

P.L.A.

Date	Team	Experiment
27-28 Jan	Q.M.C. and Queen's U. Belfast	Measurement of 'A' Parameter in (p-d) Elastic Scattering
29 Jan-2 Feb	Oxford U.	Elastic Scattering and Reaction Studies on Ni^{58} (p,p) Pb^{208} (p,d) H(p,p)

Internal Events

Mon, 27 Jan, 11.30 a.m., Lecture Theatre	Nimrod Lecture Series	Dr. Lohrman (DESY, Hamburg)	Photo production Experiments at DESY.
Mon, 27 Jan, 2.15 p.m., Lecture Theatre	Nimrod Users Meeting	1. Experience in the use of Small Computers on-line to Experiments involving (a) Wire Spark Chambers - Dr. A. Astbury: (b) Acoustic Spark Chambers - Dr. J. D. Davies: (c) a Counter Hodoscope System - Prof. N. E. Booth: (d) the Projected on-line System for use in the Harwell Cyclotron Group - Dr. C. Whitehead. 2. Nimrod Improvements - Part 1, Extraction - Mr. D. A. Gray and Mr. N. M. King.	
Tues, 28 Jan, 2.30 p.m., Lecture Theatre	Special Lecture	Dr. J. Walker (Harvard U.)	Future Electron Storage Ring Experiments.
Wed, 29 Jan, 11 a.m., Conf. Rm, R.1	HEP Disc Grp.	Dr. P. K. Kabir	Report on CERN Topical Conference on Weak Interactions

Wed, 29 Jan 10 a.m. - 12 noon Electronics Section R.18. Demonstration by Telsec Instruments Ltd, Littlemore, Oxford of their 700 Series, Potentiometer Chart Recorder ($\frac{1}{2}$ mV sensitivity).

Wed, 29 Jan, 12.40 p.m. Film
Thurs, 30 Jan 1.15 p.m. Lecture Theatre

"O for Oxygen", a 23 min. colour film by The British Oxygen Co. Ltd. (of general interest).

Another award winning film, showing how - from Priestley's discovery of oxygen in 1774 has stemmed a world wide use for oxygen and other industrial gases in industry, medicine, aviation and scientific development.

Thurs, 30 Jan 10.30 a.m. - 4 p.m. Conf. Rm. R.1. Dawe Instruments Ltd, Western Avenue, London, are presenting an exhibition of their electronic test and measuring equipment. Further information from Mr. B. E. Kingdon, R.20, Ext 6297.

Mon, 3 Feb 11.30 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. P. Salin (CERN)	A Regge Pole Model with Absorption and Unitarity for π Nucleon Scattering
External Events Mon, 27 Jan, 4.15 p.m. Clarendon Lab, Oxford	Elementary Particle Theory Seminar	Dr. B. Renner (Cambridge)	SU(3) X SU(3) Breaking in Current Algebra.
Mon, 27 Jan, 4.15 p.m., Queen Mary Coll. London	Theor. Phys. Seminar	Prof. R.E. Cutkosky (Carnegie and Cambridge)	Theory of Analysis of Scattering Data
Mon, 27 Jan, 5 p.m. Univ. of Bristol	Phys. and Geo-Phys. College	Dr. H. C. Watson (Bristol)	The Complete Three-Dimensional Structure of the Bristol enzyme-Elastase.
Wed, 29 Jan, 2.30 p.m. Univ. of Manchester	Theo. Phys. Seminar	Prof. J.F. Faulkner (Sheffield)	Calculation of Constant Energy Surfaces by the Korringa-Kohn-Rostocker Method.
Thurs. 30 Jan, 4.15 p.m. Univ. of Birmingham	Maths. Phys. Seminar	Dr. G.S. Whiston (Durham)	The Cohomology Theory of Kinematical Groups in Quantum Mechanics.
Thurs. 30 Jan, 4.15 p.m., Clarendon Lab, Oxford	Theor. Phys. Seminar	Dr. S. Stenholm (Helsinki)	Semi-Classical Laser Theory.
Thurs. 30 Jan, 5.30 p.m. Univ Coll. London	Inst. of Maths Meeting	Dr. B. Thwaites (Westfield)	The Way Ahead in School Mathematics.
Thurs. 30 Jan, 8.30 p.m., 21 Banbury Rd, Oxford.	Elementary Particle Physics Seminar	Prof. P. G. Murphy (Manchester)	The Photo production of Neutral K Mesons

EVENT AT AERE

Tues, 28 Jan. 2 p.m., Conf. Rm, Bldg, 8.9	Theor. Phys. Seminar	Dr. S. Doniach (Imp. Coll)	Dynamics of a Heisenberg Paramagnet at High Temperatures.
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Social News

RECORD SOCIETY. 12.30 p.m., Tues, 28 Jan. Lecture Theatre

"Fats on Fire"

A stereo selection of some of the more incendiary numbers from the repertoire of that notable exponent of the "slow rock-and-roll", Fats Domino. Come and be ignited!!

CHRISTIAN FELLOWSHIP. From sunny Trinidad - Jimmy Darius leads a time of contemplation and prayer. Is prayer effective, can prayer change things? Join in this time of quietness and meditation at the Christian Fellowship, P.L.A. Conf. Rm. at 12.30 p.m., on Friday, 31 January.

Rutherford Laboratory
24.1.69.

LDB

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