



Rutherford  
Laboratory

R(12), NDT(60,3), ISW(3500), ANGLE(60), YINT(60), DUMMY(24),  
(6,3), NACHT(48), XCEN(11), TC(12), AR  
MMON/CFID/MFX(20,3), MFY(20,3), NFDX(10,3), NFX(3), NFD(3), I  
B(2,20,3), NX(100,4), NY(100,4), XN(2), YN(8), IB(100,2), IDX(1  
DY(100,2), JDX(4), JDY(4), IHS(4), IOV(2), IUN(2), DE  
CF(16), IFS, NFS, FX, FY, JK, PIC, KPIC, NCOUNT, NBIN, MA, V, IUN  
AXN, CTA, CTB, MX, MY, JA, JB, JC, JD, JE, JF, XF(20,3), YF(20,3)  
MMON/CJACK/NSY(20,30), NMS(20), NDR(20), N(2), YF(20,3), YF(20,3)  
(20), BX(20), NST1(20), NST2(20), TNER(20), TNER(20), TNER(20), TNER(20)

**13-20 November 1972**

**bulletin 38**

**NATIONAL SAVING  
CERTIFICATES - WEEKLY  
CYCLE ENDING 11/11/72**

Certificates can be collected from the Cash Office R20 from 13 November onwards. New members wishing to join the scheme can obtain enrolment forms from the Cash Office. Forms must be returned not later than 15 November 1972.

**METRICATION TRAINING**

The next metrication training session will be held on Wednesday 15 November at 15.30 hours in the Lecture Theatre. For further details see Bulletin 37 (6 - 13 November 1972).

**MISSING EQUIPMENT**

Adaptor Type 81 for 585A Oscilloscope Serial No 7111. Anyone knowing the whereabouts of this item please inform Dr T G Walker Ext 6256.

**EXHIBITION**

Public Works Congress & Exhibition will be held at Olympia 13 - 18 November 1972.

**CONSERVATION SOCIETY**

Those who feel that the issues raised in Professor Freeman's Rutherford Laboratory Lecture on "Technical Progress and Limits to Growth" are both interesting and important might consider joining the Conservation Society. The Oxford branch is particularly vigorous and holds regular lectures and discussion meetings on environmental topics. There are a number of local projects under way for enthusiasts who feel that they would like to do something. More details will be displayed on the Restaurant notice board, or can be obtained from Dr J D Lawson Ext 6128.

**FILM BADGE NOTICE**

It is Period 12. Colour Strip - BROWN for 8y films and fast neutron packs. Please check you are wearing the correct dosimeter and that all old ones are returned.

**OVERSEAS VISIT**

Mr M J Hotchkiss to CERN 13 - 17 November, to work on S120 Experiment.

**RUTHERFORD LABORATORY  
VISITORS**

Apprentices and Laboratory Trainees from AERE pm 15 & 16 November.  
Staff and Pupils from Burnham Grammar School pm 18 November.



# INTERNAL EVENTS

## NIMROD LECTURE SERIES

Monday 13 November  
11.30  
Lecture Theatre

Recent Developments in X-Ray Astronomy

*Dr K Pounds/Leicester University*

## 300 GEV SEMINAR

Monday 13 November  
14.30  
Conference Room, Building R1

Physics with High Energy Muons: A Discussion of the Programme at NAL and Suggestions for the 300 GeV Accelerator.

*Dr W S C Williams/Oxford*

## HEP DISCUSSION GROUP

Wednesday 15 November  
11.00  
Conference Room, Building R1

Results from the Reactions  $\pi^+ p \rightarrow \Delta^{++}$  and  $\pi^+ p \rightarrow \Delta^{++} \omega$  at 3.7 GeV/c

*Dr K Barnham/Imperial College*

## FILM SHOW

Wednesday 15 November  
13.15  
Thursday 16 November  
12.40  
Lecture Theatre

"Winter in Japan", a 17 minute colour film.

At least one film about Japan during the 'season' is a must. This particular film, which is a new release, gives an insight into their way of life and shows the beauty of the country in the winter season.

## METRICATION TRAINING

Wednesday 15 November  
15.30  
Lecture Theatre

Last week's Bulletin gave details of this which is the second repeat.

## SEMINAR IN COMPUTING

Friday 17 November  
11.00  
Lecture Theatre

The IBM Virtual Storage Operating System

*R A Steggle/London Field Systems Group, IBM (UK) Ltd*

IBM have recently announced the Virtual Storage (VS) Operating System for use on the new virtual memory machines. This talk will describe in general terms the implementation on VS on IBM 370's and the advantages of such systems. Factors affecting performance will also be discussed.  
(Please note change of venue for this seminar)

## NIMROD LECTURE SERIES

Monday 20 November  
11.30  
Lecture Theatre

Hadron Production in Deep Inelastic Scattering

*Dr W T Toner/RHEL*

# NIMROD SCHEDULE

CYCLE 14 31 10 72 - 21 11 72

MACHINE PHYSICS

HIGH ENERGY PHYSICS

<u>Team</u>	<u>Beam</u>	<u>Experiment</u>	<u>State</u>
RHEL/UCL/Berkeley/ Torino	K9	4 GeV/c $\pi^+ p$ interactions in track sensitive target	Data
Bristol Univ/ Southampton Univ/RHEL	K15 $\pi^8$	<del>K<sup>+</sup>p</del> and $\pi^+ p$ Differential Cross-Sections Tests for L/I 63	<del>Data</del> Setting up
Churchill Hospital Oxford/RHEL	$\pi^{11}$	Radiobiological Experiment	Data
Glasgow Univ/RHEL	$\pi^9$ P71	Polarisation Measurements in $\pi^- p$ Charge Exchange Tests on Gas Cerenkov for RHEL/ISR Experiment	Setting up
Imperial College/ Southampton Univ	$\pi^7$	Studies of $\eta$ $\omega$ and A2	Data



## EXTERNAL EVENTS

### PHYSICS & GEOPHYSICS COLLOQUIUM

Monday 13 November  
17.00  
University of Bristol

"The character and aims of research work in the Electronics Industry and proposals for interaction with Universities". (A personal view).

*Professor K Hoselitz/Director of Mullard Research Laboratories, Redhill*

### THEORETICAL PHYSICS SEMINAR

Monday 13 November  
16.15  
Queen Mary College, London

"Unified theory of weak and Electromagnetic Interactions"

*Dr J C Taylor/Oxford*

### NUCLEAR STRUCTURE SEMINAR

Monday 13 November  
14.30  
Nuclear Physics Lab, Oxford

"Hyperfine Interactions in Highly Ionized Atoms"

*Dr W L Randolph/Nuc Phys Lab*

### COLLOQUIUM

Monday 13 November  
17.00  
University of Reading

"Some new approaches to Atomic Structure Calculations"

*Professor M J Seaton/Univ College, London*

### BRITISH COMPUTER SOCIETY

Tuesday 14 November  
19.45 for 20.00  
Old Mill, Aldermaston

Social evening with buffet supper and wine, at £1 per head. Wives/husbands/friends invited. Attendance limited to 90. Tickets on sale from the committee. Talk by Mr C T Ross, AIB, FBCS on "Making and Losing Money with Computers".

### COMPUTER APPLICATION GROUP

Tuesday 14 November  
16.30  
Polytechnic of the South Bank,  
London

"The General Decision Model" (an ambitious attempt to use computers to help solve problems in the design of large buildings).

*Dr S Berger*

### DARESBURY LECTURE SERIES

Tuesday 14 November  
14.00  
Daresbury NP Laboratory

"Gravitational Radiation Experiments"

*R Drover/Glasgow*

### INSTITUTION OF ELECTRICAL ENGINEERS

OXFORD DISTRICT MEETING  
Wednesday 15 November  
SEB Offices, Yarnton, Oxford

"Power in the Year 2000"

*T E Allibone CBE DSc D Eng PhD*

### APPLIED MATHEMATICS SEMINAR

Thursday 16 November  
14.30  
Royal Holloway College

"Numerical methods for the solution of the Coupled Integro-Differential Equations of Electro-Atom Collision Theory"

*Professor M J Seaton/Univ College, London*

### NUCLEAR PHYSICS DIVISION COLLOQUIUM

Thursday 16 November  
15.30  
Conference Room, HB, AERE

"Nuclear Systematics"

*Dr S Pearlstein/Brookhaven*

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Deadline  
for  
Insertions

GENERAL & SOCIAL NEWS

Tuesday 1600

INTERNAL & EXTERNAL EVENTS

Wednesday 1200

Room 42 Building R20  
Rutherford Laboratory  
Chilton Didcot Berks  
Abingdon 1900 Ext 484

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THEORETICAL PHYSICS  
SEMINAR  
Thursday 16 November  
16.15  
Clarendon Lab, Oxford

"Old & New Problems in Glass"  
*Professor P W Anderson/Cambridge and Bell Laboratory*

COLLOQUIUM  
Friday 17 November  
16.15  
Clarendon Lab, Oxford

"Recent studies in interstellar molecules"  
*Dr R D Davies/Jodrell Bank*

PHYSICS & GEOPHYSICS  
COLLOQUIUM  
Monday 20 November  
17.00  
University of Bristol

"Planetary Magnetic Fields"  
*Dr R Hide/Met Office, Bracknell*

THEORETICAL PHYSICS  
SEMINAR  
Monday 20 November  
15.45  
Queen Mary College, London

"Spin Waves in Heisenberg Magnets"  
*Professor A Brooks/Pennsylvania & Oxford*

NUCLEAR STRUCTURE SEMINAR  
Monday 20 November  
14.30  
Nuclear Phys Lab, Oxford

"Three Particle States of  $^{19}\text{F}$ "  
*Dr W O Rogers/Nuc Phys Lab*

## SOCIAL NEWS

### HORTICULTURAL SOCIETY - EVENING LECTURE

Once again we have a first class speaker for the evening lecture on Tuesday 14 November in the Lecture Theatre at 19.30.  
Mr J Elliott from the Broadwell Nurseries, Moreton-on-the-Marsh will be talking about "Alpines without a Rock Garden". Mr Elliott is well known in this field as a broadcaster and should be worth hearing.  
Tickets at 15p can be obtained from any committee member or from the Editor on Monday 13 November or Tuesday 14 November.

### FOLK CLUB

The next meeting at 8 pm on Friday 10 November in the Restaurant Coffee Lounge features Brian Brocklehurst and Hadleigh Kay.  
Brian, affectionately known as Broc, is one of Britain's leading double bass players. He has appeared in Country meets Folk; Folk on Sunday and now has his own programme on Radio London.  
Hadleigh is a songwriter of note, plays guitar and sings a lot of his own songs.

### RECORD SOCIETY

Tuesday 14 November, 12.40 Lecture Theatre

Brahms Violin Concerto - Yehudi Menuhin with the Berlin Philharmonic

A very well known work performed in this stereo recording by a master and the famous Berlin Philharmonic: conducted by Rudolfe Kempe. There is little more to say except come along for a while on Tuesday.

### CHRISTIAN FELLOWSHIP

Friday 17 November. Meyrick Wyard will be leading the meeting with a subject "Sin is your four letter word". This is the second meeting in a series entitled "The Five Steps to Heaven". It sounds intriguing. Why not come along at 12.30 pm in the Conference Room, R12.