

# Rutherford Laboratory Bulletin

No.22/66  
6 June 66

## General News

N.A.T.O. ADVANCED STUDY INSTITUTE. An International Advanced Study Institute will be held under the auspices of the Science Affairs Division of N.A.T.O., the Italian Consiglio Nazionale delle Ricerche, and the University of Milan at Cortina d'Ampezzo, Italy, 11-23 July 1966. The subject is "Elementary Excitations and their Interactions in Solids".

Following this, a second Conference will be held, from 25-26 July, on "Localised Excitations in Solids". This is sponsored by the University of Milan and the Gruppo Nazionale Struttura della Materia del C.N.R. at the University of Milan. The closing date for applications for both Conferences is 15 June. Further details from H.F. Norris Bldg R.20 Ext 484.

OVERSEAS VISITS. Mr. J.D. Forbes and Mr. J.F. MacEwan, to CERN, College de France, Paris and I.N.F.N., Bologna, 5-15 June, for discussions on the Hough-Powell Device and other flying spot digitisers.

Dr. P.J. Finney, Dr. A.M. Segar, Dr. C Fisher and Mr. P.J. Litchfield, to Saclay, 7 June for one day for discussions.

## Machine Schedules

P.L.A.

Date	Team	Experiment
6-8 June		Maintenance
9-17 June	A.E.R.E.	Optical Model Elastic Scattering

## Internal Events

Mon, 6 June, 11.15 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. P. Sonderegger (Saclay)	The $\pi^-p$ Charge Exchange Reaction at High Energies
Thurs, 9 June 3.30 p.m. Lecture Theatre	Applied Physics Series	Mr. N.M. King	Extracted Beams from Nimrod
Mon, 13 June, 11.15 a.m. Lecture Theatre	Nimrod Lecture Series	Prof. R.H. Dalitz (Oxford)	Problems Concerning $\eta$ meson Decay.

## External Events

Tues, 7 June 2.30 p.m., 21 Banbury Rd, Oxford.	Nuclear Phys Seminar	Dr. O. Nathan (Copenhagen Univ)	Excited $O^+$ States near Closed Shells
Thurs, 9 June, 4.15 p.m. Clarendon Lab. Oxford	Theor. Phys. Seminar	Dr. P.C. Martin (Harvard & Saclay)	Non-Local Currents - Fact and Fallacy

A.E.R.E.

Thurs, 9 June, 2 p.m. Conf Rm 8.9	Joint Applied Maths Seminar	Dr. F.S. Smith (Belfast)	Automatic Evaluation of Integrals
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## Social News

CHRISTIAN FELLOWSHIP. The next meeting will be on Thursday, 9 June, at 12.30 p.m. in the PLA Conference Rm, R.12, when the Rev. E.H. Roberts, Vicar of Faringdon, will speak on "The Grace of God - how to get more of it?" All are welcome. Further details from B.E. Kingdon, R.20 Ext 6297.

RUTHERFORD LABORATORY ARCHERY CLUB. Would all persons interested in forming such a club please ring Mr. D.A. Cragg, Ext 6276.

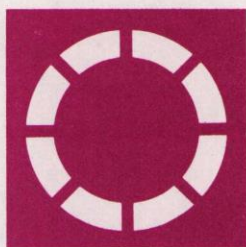
RECORD SOCIETY. Tuesday, 7 June, 12.30 p.m., Lecture Theatre.

"Klemperer plays Wagner"

Rutherford Laboratory  
3.6.66.

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





# Rutherford Laboratory Bulletin

No. 23/66  
13 June 66

## General News

**LECTURE COURSE.** The 2nd Oxford Lecture Course on "Advanced Electronic Techniques" will be held at the Clarendon Laboratory from 4 July (2 p.m.) to 7 July (12.30 p.m.) 1966. Further details can be obtained from H.F. Norris, Bldg R.20 Ext 484.

**CONFERENCE.** A conference on electrical network theory and design has been organised jointly by the University of Newcastle-upon-Tyne, the Ministry of Technology, the Institution of Electrical Engineers and the Institution of Electronic and Radio Engineers. Papers will be presented in the Electrical Engineering Department of the University of Newcastle-upon-Tyne from 9.30 a.m. on Tuesday, 13 September to 5.00 p.m. on Thursday, 15 September. Further details from H.F. Norris, Bldg R.20 Ext 484.

**OVERSEAS VISITS.** The Director, Mr. W. Walkinshaw and Dr. G. Manning will visit Russia from 13-27 June.

Dr. N.D. West, to the Instytut Baden Jadrowych Swierk, Poland, 14-19 June for technical discussions relating to Proton Linear Accelerators.

Dr. L.C.W. Hobbs, to CERN, 14-16 June, to attend CERN Council meeting.

## Machine Schedules

NIMROD Period 2 - Cycle 1 (8.6.66.-28.6.66.)

Machine Physics  
Extracted Beam Studies  
High Energy Physics

Team	Beam	Experiment	
U.C.L.	P3X	Study of the $\eta^0$ meson	Data
Birmingham/ Cambridge/RHEL	K6	$K^-$ - nucleon total cross-section measurements	Data
Oxford Univ.	K4	A study of the decay modes of the $K^+$	Data
RHEL/Oxford	K7	$\pi^-p$ polarisation measurements	Setting up
Imperial College	#1	Study of the $\phi \rightarrow e^+ + e^-$	Setting up
Oxford Univ. - Helium Bubble Chamber Team	K18	A survey of p and $\pi$ interactions with Helium	Setting up

P.L.A.

Date	Team	Experiment
13-17 June	AERE	Optical Model Elastic Scattering
18-21 June	Queen's Univ. Belfast & Westfield College	(p,d) Elastic Cross-section Measurements.

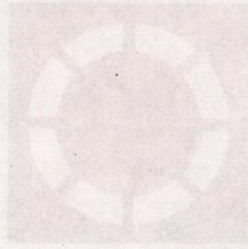
## Internal Events

Mon, 13 June, 11.15 a.m. Lecture Theatre.	Nimrod Lecture Series	Prof. R.H. Dalitz (Oxford)	Problems Concerning $\eta$ meson decay
Wed, 15 June, 3.30 p.m. Lecture Theatre	Popular Lecture Series	Mr. N.M. King (RHEL)	Beam Transport

This will be the last lecture in the present series of Popular Lectures. It is hoped to start a second series later in the year.

Thurs, 16 June, 3.30 p.m. Lecture Theatre	Applied Physics Series	Mr. E.J. Jones	A Review of Medium Energy Isochronous Cyclotrons with Particular Emphasis on the Harwell Variable Energy Cyclotron.
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## External Events

Mon, 13 June 4.30 p.m. UCL London	Astrophysics Seminar	Dr. A. Burgess (Cambridge)	Dielectronic Recombination at Higher Densities
Thurs 16 June 4.15 p.m. Clarendon Lab. Oxford.	Theor. Phys. Seminar	Dr. H.A. Weidenmuller (Heidelberg)	Direct and Compound- Nucleus Processes in the Shell- Model Description of Nuclear Reactions.
A.E.R.E.			
Thurs, 16 June 2 p.m. Conf. Rm. Bldg 8.9	Joint Applied Maths Seminar	Prof. B. Noble (Univ. of Wisconsin)	Recognizing Illconditioning when Solving Simultaneous Linear Equations.

## Social News

CHRISTIAN FELLOWSHIP. The next Bible Study Meeting on the Epistle to Titus will be held on Thursday, 16 June at 12.30 p.m. in the PLA Conference Room R.12 and will be led by Mr. J.L. Thomas of Nimrod General Physics Group. Newsletter No.6 is now ready and copies may be obtained at the Meeting or from B.E. Kingdon. R.20 Ext 6297.

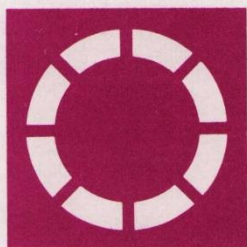
RECORD SOCIETY. Tuesday, 14 June, 12.30 p.m. Lecture Theatre.

Selection, "South Pacific" (Rodgers & Hammerstein)

Rutherford Laboratory  
10.6.66.

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





# Rutherford Laboratory Bulletin

No. 24/66  
20 June 66

## General News

**MISSING EQUIPMENT.** A Marchant Calculating Machine, Ser/No. 8 ADX 619823 is missing from the Bubble Chamber Research Group, HEP Division, Bldg R.1. Will anyone with information on its present whereabouts, please contact Dr. P. Finney, Ext 6150.

**BURSARIES.** Applications are invited for awards under the Royal Society and Nuffield Foundation Commonwealth Bursaries Scheme beginning during the period from January-June 1967 or later. The closing date for applications is 15th September 1966. Details may be obtained from H.F. Norris, Bldg R.20 Ext 484.

**OVERSEAS VISITS.** Dr. L.C.W. Hobbis and Dr. R.H. Thomas, to CERN, 19-22 June, to attend the ECFA No.2 Meeting.

Dr. W.A. Smith and Mr. T.R. Mason, to Basle and Geneva, 21-24 June for discussion with Haefely & Co. and also at CERN.

Dr. G.H. Stafford, to CERN, 21-22 June, to attend meeting of NPRC.

## Machine Schedules

PLA

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
20-21 June	Queen's Univ. Belfast and Westfield College	(p,d) Elastic Cross-section Measurements
22-24 June		Maintenance

## Internal Events

Mon, 20 June 11.15 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. J.D. Dowell (Birmingham)	Report on the Stony-Brook Conference on High Energy 2-Body Reactions
Thurs, 23 June 3.30 p.m. Lecture Theatre	Applied Physics Series	Mr. E.C. Sedman	Bubble Chamber Data Reduction

EVENT AT THE ATLAS LAB.

Thurs, 23 June, 2 p.m., Conf. Rm Atlas Lab.	Joint Applied Maths Seminar	Dr. I. Grant (Atlas Lab.)	Invariant Imbedding in Radiative Transfer
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## Social News

**RUTHERFORD LABORATORY FLYING CLUB.** A meeting is to be held at 13.00 hrs on Friday, 24 June in Conference Room, R.1 to discuss the possibility of forming a flying club. Members of the Laboratory with an interest in Gliding or Power Flying (with or without experience), are requested to attend. Further information may be obtained from Mr. W.M. Bray, Rm G.5 R.2 Ext 217/589.

**RECORD SOCIETY.** Tuesday, 21 June, 12.30 p.m. Lecture Theatre.

"Sonata No.2 for Piano", by Chopin, played by Rubenstein.

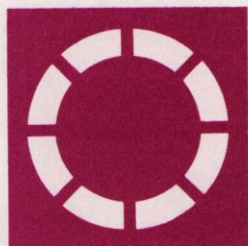
**CHRISTIAN FELLOWSHIP.** 12.30 p.m. Thursday, 23rd June, PLA Conf Rm R.12. Prayer Meeting and election of Area representative to Joint Fellowship Committee. Nominations for RHEL Committee to be received before or at the meeting. (NB - Joint AGM - 12.25 p.m. Wednesday, 29 June, Social Club Chapel, AERE. RHEL AGM - 12.30 p.m., Thurs, 30 June). Further information from B.E. Kingdon, R.20 Ext 6297.

**EVENING CRICKET LEAGUE.** S.R.C. v Industrial Chemistry, 6 p.m. Tuesday, 21 June, at the AERE Cricket Ground.

Rutherford Laboratory  
17.6.66

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





# Rutherford Laboratory Bulletin

No. <sup>25</sup>24/66  
27 June 66

## General News

**MISSING EQUIPMENT.** The following item of equipment is still missing and information is urgently required.

"Kali" photographic gadget bag, black leather with red corduroy lined interior. The bag contains expensive setting-up tools for Hewlett Packard equipment. Will anyone with information on this item please contact Mr. G. Howard, R.18, Ext 6615.

**UNCLAIMED MAIL** A catalogue has been received from Colt Ventilation and Heating Ltd. According to the firm this was requested by Mr. S.T. Harris. The catalogue may be claimed from Scientific Administration Room 21, Ext 6297.

**OVERSEAS VISITS.** Mr. J.W. Gardner, Mr. A. Accensi, Mr. R.A. Lawes and Mr. M.J. Mitchell, to CERN, 26-28 June to attend a one day conference on HPD programming.

Mr. D.R. Moore, to Paris, 26-28 June to attend the next European meeting on vacuum standards.

## Machine Schedules

P.L.A.

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
25-28 June	Oxford Univ.	Isobaric Analogue States
29 June	Accelerator Physics	Beam Emittance Measurements
30 June - 3 July	RHEL	n = 1/2 Spectrometer Beam Transport and Spark Chamber Tests

NIMROD Period 2 - Cycle 2 (29.6.66. - 19.7.66.)

Machine Physics  
Extracted Beam Studies  
High Energy Physics

<u>Team</u>	<u>Beam</u>	<u>Experiment</u>	
Oxford Univ.	K4	A Study of the decay modes of the $K^+$	Data
Birmingham U./ Cambridge U./ RHEL	K6	$K^-$ - nucleon total cross-section	Data
UCL/Oxford U.	P3X	A study of the $\phi^0$ meson	Data
AERE/Southampton U./ UCL	P3	A study of the $\pi^- + p \rightarrow (n + x \text{ processes})$ ( $p + x$ )	Data
Imperial Coll.	$\phi 1$	A study of the $\phi \rightarrow e^+ + e^-$ decay	Data
RHEL/Oxford U.	K7	$\pi^- p$ polarisation measurements	Setting up
AERE/QMC	$\pi 4$	A study of $\Sigma \beta$ decay	Setting up

## Internal Events

Mon, 27 June, 11.15 a.m., Lecture Theatre	Nimrod Lecture Series	Prof. R.J. Blin-Stoyle (Univ. of Sussex)	Some Implications of Partially Conserved Axial Vector Current Theory for Nuclear Beta Decay
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There will be no Applied Physics Lecture this week

EVENT AT AERE

Thurs, 30 June, 2 p.m., Conf. Rm, Bldg 8.9.	Joint Applied Maths Seminar	Mr. R.C.F. McLatchie	Reducing Matrices to Triangular Form by Jacobi Methods.
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## Social News

RECORD SOCIETY Tuesday, 28 June 1.00 p.m., Lecture Theatre

"Planets Suite" by Holst.

CHRISTIAN FELLOWSHIP: AGM, Thurs, 30 June, 12.30, P.L.A. Conf. Rm. Nominations for Committee to B.E. Kingdon, R.20 by Wed, 29 June. (N.B: Joint Fellowship AGM, 12.25 p.m., Wed, 29 June, Social Club Chapel, AERE). Members are requested to attend both meetings if at all possible.