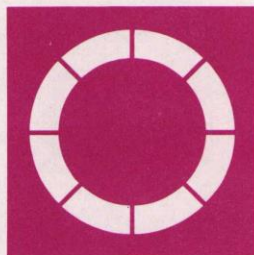


21/68
10 June 68



Rutherford Laboratory Bulletin

General News

RADIATION PROTECTION NOTICE - FILM ISSUES. It is Period 6. Colour Strip - GREY for $\beta\gamma$ and fast neutron films.
Next film change - Monday, 17 June.

QUEST. Edition No. 2 has now been distributed. Your suggestion and criticisms are requested, if possible by next Monday, 10 June, as the Editorial Board will be meeting on Tuesday, at the Laboratory. Some criticism has already been received about the 'Newsfront' section. This can only improve if contributions are forthcoming. In short, this is your magazine and it requires your support if it is to succeed. So please send your contributions, suggestions, and criticisms to your local correspondent, H. F. Norris, Rm. 42, Bldg. R.20, Ext. 484.

OVERSEAS VISITS. Dr. P. K. Kabir, to Trieste, Italy on 8 June for two weeks, to attend the International Symposium on Contemporary Physics.

Dr. R.J.N. Phillips, to Zakopane, Poland, 9 - 15 June, to attend and lecture at the Theoretical Physics Summer School, also to Trieste, 16 - 24 June, to attend the International Symposium on Contemporary Physics.

Dr. O.R.J. Ranft, to Toronto, 8 - 14 June, to present an invited paper at the 14th Annual Meeting of the American Nuclear Society.

Dr. A.T. Lea, to Zakopane, Bratislava and CERN 8 - 26 June. He will be attending the Summer School on Theoretical Physics at Cracow.

Dr. G.H. Stafford, Dr. J.J. Thresher and Dr. G. Manning, to CERN 9 - 11 June to attend a meeting on the use of Intersecting Storage Rings.

Mr. P.D. Hey, to CERN 9 - 12 June, to discuss installation of S70 Beam Line.

THE QUEENS VISIT TO R.A.F. ABINGDON, 1968. Her Majesty the Queen is visiting the Royal Air Force Station, Abingdon on the 14th June in connection with the 50th Anniversary of the R.A.F.

She will leave the Aerodrome at 4 p.m. followed half an hour later by the other guests. Considerable congestion in Abingdon is inevitable between 4.30 and 6 p.m.

Some re-routing of buses at outmuster will be necessary and for those living in Abingdon delays are inevitable. All staff leaving the site in their own cars and who normally travel through Abingdon are advised to use a detour to avoid the Town.

An official notice will be issued shortly giving more details.

Machine Schedules

NIMROD Cycle 8 (11.6.68 - 2.7.68)

Machine Physics : Switched Extractor Magnet Tests and Diagnostic Experiments on X1,

High Energy Physics.

Team	Beam	Experiment	
Imp. Coll./Westfield	X1/K9	K^+p Interactions in the National Bubble Chamber between 2.0 and 2.8 GeV/c	Data
QMC/AERE/RHEL	π^+	A Study of the Σ Beta Decay	Data
UCL/RHEL	K8	K^+p Differential Cross-sections from 0.85 to 2.2 GeV/c.	Setting Up
Oxford U.	K108	Study of $K^+p \rightarrow$ Neutral States.	Setting Up
Imp. Coll./Southampton	π^-	An Investigation of Narrow Bosons Produced in πp Collisions	Setting Up

P.L.A.

Date		
10 - 14 June	Kings' Coll. London	Asymmetry and Polarization Studies on Ar^{40} at 30 and 50 MeV
15 June		Setting Up.
16 - 23 June	RHEL, 1.	Polarization Measurements in (p, He^4) Scattering at 30 to 40 MeV.

Internal Events

Mon, 10 June 11.45 a.m., Lecture Theatre	Nimrod Lecture Series.	Prof. P.T. Matthews (Imp. Coll.)	Particle Production at Intermediate Energies.
Tues, 11 June 12-1.15 p.m., Lecture Theatre	Lecture for Experimentalists	Dr. J. E. Paton	Introduction to SU3: Part 3
Wed, 12 June 11 a.m., Conf. Rm. R.1.	H.E.P. Disc. Grp.	Dr. G. Oades	K_e Decay and the $T=0 \pi-\pi$ Interaction.
Mon, 17 June 11.45 a.m., Lecture Theatre.	Nimrod Lecture Series	Dr. C. Rubbia (CERN)	Experiments on the Phase of the CP Violating Amplitude for $K_L^0 \rightarrow \pi^+ \pi^-$ Decays.

External Events

Mon, 10 June, 5 p.m. Univ. of Reading	Colloq	Dr. R. Haensel (Inst. for Exp. Phys., Hamburg)	Solid State Spectroscopy with D.E.S.Y Synchrotron Radiation.
Wed, 12 June, 4 p.m. Royal Soc., London	London High Energy Physics Seminar.	Prof. S. Treiman (Princeton U.)	Current Algebra.
Wed, 12 June 5.30 p.m. Imp. Coll., London	Inst. of Maths. Lecture	Prof. H.S.M. Coxeter (U. of Toronto)	Circle and Spheres.
Thurs, 13 June, 2.30 p.m. Clarendon Lab., Oxford	Low Temp and Solid State Phys. Seminar.	Dr. R.M. Bozorth	Magnetism in Single Crystals of Rare Earth Metals and Alloys.
Thurs, 13 June 4.15 p.m. Clarendon Lab., Oxford	Theor. Phys. Seminar.	Dr. G. Barton (Sussex)	No Explanation of the Neutron - Proton Mass Difference
Thurs. 13 June, 4.15 p.m. 21 Banbury Road, Oxford	Seminar in Elementary Particle Phys.	Prof. S.B. Treiman (Princeton U.)	Pion Phase Shift Information from $K_{\ell 4}$ Decay.
Fri, 14 June, 4.15 p.m. Clarendon Lab., Oxford	Colloq.	Prof. D. Kleppner (M.I.T.)	Experiments with the Hydrogen Maser.
Mon. 17 June, 4.15 p.m. Clarendon Lab., Oxford	Elementary Particle Theory Seminar	Dr. D. Bailin (Sussex)	Radiative Corrections to Weak Interactions.
EVENTS AT AERE			
Fri, 7 June, 2.30 p.m. Conf. Rm., H.8.	Nucl. Phys. Div. Colloq.	Dr. T. B. Pierce	Application of Some Nuclear Methods to Analysis.
Tues, 11 June, 2 p.m. Conf. Rm., B.8.9	Theor. Phys. Div. Seminar	Mr. T. Garrett (Programmes Analysis Unit)	Technological Forecasting.

Social News

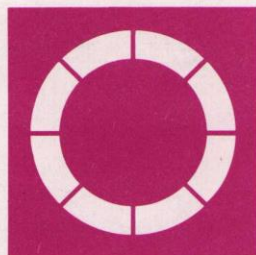
BETATOMIC '68 Please do not apply to the Cash Office for tickets as the number allocated to the Laboratory have all been sold.

BRITISH OLYMPIC ASSOCIATION APPEAL. The Civil Service Sports Council has contributed most generously to previous Olympic Games Appeals and the Science Research Council Sports and Social Association has been asked to organise collections throughout the Council. Collection boxes will be available for your contributions at all Admin. Offices and other focal points around the site, all next week, 10 - 14 June.

Rutherford Laboratory
7.6.68

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

No. 22/68
17 June 68



Rutherford Laboratory Bulletin

General News

ROAD WORKS AT UPTON RAILWAY BRIDGE. Berkshire County Council say that in connection with the road improvement works to be carried out at Upton Railway Bridge it will be necessary to close the following roads for a period of six weeks from, Monday, 17 June.

Road A.417 for a distance of 100 yards either side of the now disused Didcot/Newbury branch railway line.

The road to Upton for a distance of 50 yards from its junction with the road A.417.

Alternative routes for ordinary traffic will be signposted.

BURSARIES. Applications are invited for awards under the Royal Society and Nuffield Foundation Commonwealth Bursaries scheme beginning during the period January - June 1969 or later. The closing date for applications is 15 September 1968. Details may be obtained from H. F. Norris, Bldg. R.20, Ext. 484.

RADIATION PROTECTION NOTICE - FILM ISSUES. Period 7 commences Monday, 17 June. Colour Strip - BLUE for $\beta\gamma$ and fast neutron films. Please change films promptly and return all old films as soon as possible.

OVERSEAS VISITS. Mr. D. Morgan to the U.S.A. on 15 June for approximately one month where he will attend the Annual Boulder Conference on Particle and High Energy Physics. He will also visit Berkeley, Stanford and Brookhaven.

Dr. T. G. Walker, to Berkeley and Stanford, U.S.A. 17 - 22 June, for discussion with teams using magnet spark chamber systems.

Machine Schedules

NIMROD Cycle 8 (11.6.68. - 2.7.68.)

Machine Physics: Switched Extractor Magnet Tests and Diagnostic Experiments on XI.

High Energy Physics: (XI/K9, π_4 , K8, K10 S and π 7)

Full details of Cycle 8 were given in Bulletin No. 21/68.

P.L.A.

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
17 - 23 June	RHEL 1	Polarization Measurements in (p,He ⁴) Scattering at 30 to 40 MeV.

Internal Events

Mon. 17 June, 11.45 a.m., Lecture Theatre.	Nimrod Lecture Series	Dr. C. Rubbia (CERN)	Experiments on the Phase of the CP Violating Amplitude for $K_L \rightarrow \pi^+ \pi^-$ Decays.
Tues. 18 June, 12.-1.15, Lecture Theatre	Lecture for Experimentalists	Dr. J. E. Paton	Introduction to SU ₃ : Part 4.
Wed., 19 June 11 a.m. Conf. Rm., R.1	H.E.P. Disc. Grp.	Dr. S. Y. Lo (RHEL)	Predictions of K_{L3} Parameters.

EXHIBITION. A Mobile Exhibition Vehicle from Scientifica and Cook Electronics Ltd., will visit the Laboratory on Wednesday, 19 June from 9.30 a.m. until 4.30 p.m., outside Building R.20. Items to be shown include lasers and holographic equipment, magnets, Hall probes, micro-pumps and various types of spectrometer. For further details please see notice boards, or contact B. E. Kingdon, R.20, Ext. 6297.

Mon., 24 June, 11.45 a.m., Lecture Theatre.	Nimrod Lecture Series	Dr. R. J. Eden (Cambridge)	Review of S + Matrix Theory and its Relation to Experiment.
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External Events

Mon., 17 June, 4.15 p.m. Clarendon Lab., Oxford.	Elementary Particle Theory Seminar	Dr. D. Bailin (Sussex)	Radiative Corrections to Weak Interactions.
Mon., 17 June, 4.15 p.m. Queen Mary Coll., London	Theor. Phys. Seminar	Prof. W. E. Lamb (Yale)	Theory of Lasers.
Tues., 18 June, 3.45 p.m. Culham Lab.	Talk	Mr. M. R. Must (London School of Economics)	A Computer Program for Information Retrieval.

Thurs., 20 June,
4.15 p.m. Clarendon
Lab., Oxford.

Theor.
Phys.
Seminar

Dr. H. Post
(Chelsea)

System of Several Identical Particles.

EVENT AT ATLAS LAB.

Mon., 17 June,
2.30 p.m. Large
Conf. Room.

Talk

Paul Bratley
(Edinburgh Univ)

Recognition of Syntactic Structure by Computer.

Social News

RECREATIONAL SOCIETY NEWS. PUTTING GREEN - The putting green is now open for use by all personnel at a charge of sixpence per putter per lunch break. The charges are reduced for members of the Recreational Society so if you are not already a member and wish to benefit from the reduced green fees and, to participate in the growing list of Society activities, join now. Putters and balls will be issued each day by Mr. K. L. Leo, R.2, Ext. 280.

S.R.C. SPORTS DAY. The Science Research Council Sports and Social Association is holding a sports day on Wednesday, 17 July 1968 at the Civil Service Sports Ground, Chiswick at which all SRC personnel are invited to participate. It is planned to make this an annual event, widening the activities each year in the light of experience on such matters as finance, support etc., however this year's events are likely to be confined to cricket and tennis.

It is hoped to send a cricket team from the Atlas Lab. as well as one from the Rutherford Lab., each team being required to play two matches.

Tennis - three mixed doubles teams from each Lab. has been suggested but the number of games played by teams will depend on the courts available and the number of entries.

Would anyone interested in taking part in this first sports day, please contact the appropriate person named below, as soon as possible:-

Atlas Lab. Cricket & Tennis - Dr. D. B. Russell, Ext. 6105.

Rutherford Lab. Cricket - Mr. J. Rimen, R.2, Ext. 6342
Tennis - Miss J. Towers, R.20, Ext. 430.

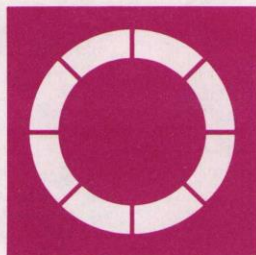
CHRISTIAN FELLOWSHIP. Fri., 21 June, 12.30 p.m., P.L.A. Conf. Rm., R.12. Prayer Meeting. All welcome.

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

Rutherford Laboratory
14.6.68
pmh

STOP PRESS - CHRISTIAN FELLOWSHIP. Friday, 14 June in R.1 Conf. Rm, 12.30 p.m. The meeting will be led by Marshall Shallis, ex-bank official and Naval Commander, now with the Evangelisation Society. We extend a cordial invitation to all to come and hear this most interesting speaker.

No. 23/68
24 June 68



Rutherford Laboratory Bulletin

General News

SYMPOSIUM ON HOLOGRAPHY. The University of Strathclyde, in association with the National Physical Laboratory, is organising a symposium on "The Engineering Uses of Holography", to take place from 17-20 September, 1968 in the University's Royal College, Glasgow. Further details may be obtained from H.F. Norris, R.20, Ext. 484.

MISSING EQUIPMENT. Would the person who borrowed a 'RACAL' 100 Mc/s counter (SA550) from Building R25 please contact D. Trew, Ext. 6176.

NATIONAL PHYSICAL LABORATORY OPEN DAYS. A limited number of invitations to the N.P.L. Open Days on Wednesday-Thursday, 26-27 June, have been received. This year, the Engineering Sciences Group is exhibiting its work. Invitations and Guides from H.F. Norris, Bldg. R.20, Ext. 484.

RADIATION PROTECTION NOTICE - FILM ISSUES. Period 7 commenced Monday, 17 June. Colour Strip - BLUE for $\beta\gamma$ and fast neutron films. Please check that you are wearing the correct films and that all old films are returned promptly.

EDUCATION AND TRAINING DEPARTMENT, A.E.R.E. The latest bulletin has just arrived listing courses that have been arranged for the period 1 July 1968 to 31 August 1969. This list can be seen on application to H.F. Norris, Room 42, R.20, Ext. 484.

OVERSEAS VISITS. Mr. M. Snowden and Dr. D.B. Thomas to the U.S.A. 22 June for three weeks to attend Summer Study on Superconducting Devices and Accelerators at Brookhaven National Laboratory and to visit Bubble Chamber Groups at other Laboratories.

Mr. N. Beaton and Mr. J.R. Stokoe, to CERN 23-27 June for discussions on testing and installation of the Cambridge/RHEL Hydrogen Target.

Mr. W. Turner, to Stockholm, 23-29 June, to attend the 8th International Congress on High Speed Photography.

Dr. R. Taylor to CERN, 23-24 June for discussions on a proposed new journal, 'Computer Physics Communications' with representatives of other high energy physics laboratories.

Dr. G.H. Stafford, to Geneva, 24-25 June, to attend meeting of the Steering Committee for the European Physical Society.

Mr. H. Lane, to CERN, 24-28 June, for discussions on a data transmission system for computer control of accelerators.

Mr. N.M. King, to CERN, to attend ECFA CERN 300 GeV study group meeting and for discussions with CERN personnel, 25 - 29 June.

Machine Schedules

NIMROD Cycle 8 (11.6.68 - 2.7.68)

Machine Physics : Switched Extractor Magnet Tests and Diagnostic Experiments on X1.

High Energy Physics : ($X1/K9$, π_4 , $K8$, $K10S$ and π_7).

Full details of Cycle 8 were given in Bulletin No. 21/68.

P.L.A.

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
24-25 June		Maintenance.
26 June - 4 July	Prof. Greenless	Polarization Measurements in Elastic Scattering

Internal Events

Mon, 24 June, 11.45 a.m., Lecture Theatre	Nimrod Lecture Series	Dr. R.J. Eden (Cambridge)	Review of S-Matrix Theory and its Relation to Experiment
Tues, 25 June, 12-1.15 p.m., Lecture Theatre	Lecture for Experimentalists	Dr. A. Astbury	Neutron Beta Decay: Part 1
Wed, 26 June, 11 a.m. Conf. Rm., R.1	H.E.P. Disc. Grp.	Dr. D. Olive (Cambridge)	Mandelstam Cuts.
Mon, 1 July, 11.45, Lecture Theatre	Nimrod Lecture Series	Dr. A. Hewish (Cambridge)	Neutron Stars

External Events

Mon, 24 June, 4.15 p.m.,
Queen Mary Coll., London.

Theor. Phys
Seminar

Prof. N.D. Mermin
(Cornell)

Fermi Liquid Effects in Metals.

27 June - 11 July, International Machine Tool Exhibition at Olympia
London, daily (Sundays excepted) from 09.00 - 1800. Tickets available from H.F. Norris, R.20, Ext. 484

Correction Dr. Bailin's seminar on "Radiative Corrections to Weak Interactions" will now take place on Monday, 1 July at 4.15p.m in the Small Lecture Room, Clarendon Lab. Oxford.

Social News

OLYMPIC GAMES APPEAL FUND. As the result of last week's appeal a total of £5. 2. 11 was collected, and thanks are expressed to those who subscribed.

As some people may have missed seeing the collection boxes or would prefer to give a more personal donation to the fund, it has been decided to hold the above sum until the end of June to allow for any late contributions.

A collection box will be available in R25 Admin. Office (opposite the Cash Office) for anonymous contributions, but anyone wishing to give a personal donation should contact E.W. Clark, Ext. 6290/519, R8.

CHRISTIAN FELLOWSHIP. Fri. 28 June, 12.30 p.m., P.L.A. Conference Room, R.12.

Recording of another Billy Graham Sermon. All welcome

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

Rutherford Laboratory.
21.6.68.