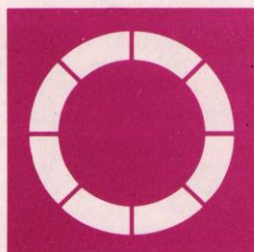


No. 20/69
2 June 69



Rutherford Laboratory Bulletin

General News

VISITORS. About thirty members of the Newbury "Round Table" will visit the Laboratory on Tuesday 3 June.

FILM NOTICE. It is Period 6. Colour Strip - YELLOW for $\beta\gamma$ and fast neutron films. Next film badge change, Monday 16 June.

THE ROYAL SOCIETY "Duality - Reggeons and Resonances in Elementary Particle Processes", a meeting for discussion, organised by Prof. R. H. Dalitz, F.R.S. commencing at 10.0 am on Thursday, 5 June at 6 Carlton House Terrace, London. Full details of programme can be obtained from H. F. Norris, R.20, Ext. 484.

Details of all Royal Society meetings, although not normally published in the Bulletin, are available from the above.

NATIONAL BLOOD TRANSFUSION SERVICE A letter of thanks has been received from Peter Collins, the Regional Donor Organiser, for the generous response given to their visits on Wednesday, 30 April and Thursday, 1 May. He concludes his letter, quote "I am delighted to report that 143 donors attended, including nineteen new donors".

OVERSEAS VISITS. Mr. N. M. King, Dr. J. H. Coupland and Mr. P. A. Reeve to the University of Basle on 2 June to discuss a beam guiding system from a cyclotron, for the purpose of advising British Industry. Mr. King and Dr. Coupland will return on 5 June. Mr. Reeve will proceed to CERN and return on 6 June.

Mr. H. Wroe and Mr. E. G. Higgins to Brussels, 3 June for a Project Review Meeting with Estec and the Institute of Astrophysics on the ROE/Liege experiment.

Dr. S. F. J. Read, to Saclay, 3-4 June for discussions on materials for polarized targets.

Dr. G. H. Stafford, to Geneva, 4 June, to attend meeting of Nuclear Physics Research Committee.

Machine Schedules

NIMROD Cycle 6 (3.6.69-24.6.69)
Machine Physics
High Energy Physics

Team	Beam	Experiment	
Birmingham U./RHEL	K12	K^+p Differential Cross Section Measurements from 0.45-0.85 GeV/c	Data
Cambridge U./RHEL	K13	Measurement of the Amplitude for $\Delta S = -\Delta Q$ Interactions in K^0 Decay	Data
Oxford U./RHEL	K14A	Polarization Effects in π^+p Elastic Scattering	Setting up
AERE/QMC/RHEL/Bergen	P71	pp Elastic Scattering at Large Angles between 1.5 and 4.0 GeV/c	Setting up
UCL/RHEL	K8	K^+p Differential Cross Sections between 1.6 and 2.35 GeV/c	Data
RHEL/CERN/UCL	K9	Testing of the Target Facility in the Hydrogen Bubble Chamber	Setting up
Oxford U.	K10S	Study of $K^+p \rightarrow$ Neutral Final States for K^- Momenta in the Range 0.6-1.8 GeV/c	Data

P.L.A.

Date	Team	Experiment
2-9 June	Manchester Univ.	(p,t), (p,He ³) and (p, α) Reaction Studies.
10 June	Radiation Protection	Foil Calibrations
11-15 June		Shut down period.

Internal Events

Mon., 2 June 11.30 a.m., Lecture Theatre.	Nimrod Lecture Series	Mr. J. D. Lawson (RHEL)	Unphysical Physics
Tues., 3 June 10.15 a.m., Conf. Rm., R.2	Informal Discussion	Mr. Andy Nekut	R.C.A. Phototubes
Tues., 3 June 11.30 a.m., Lecture Theatre.	Special Nimrod Lecture	Dr. C. Lovelace (CERN)	$\pi\pi$, $K\pi$ and KK^- Phase Shifts and their Off Shell Dependence from Unitarized Veneziano Formulac.

Wed., 4 June 11 a.m., R.1 Conf. Rm.	HEP Disc Grp.	Dr. G. Venturi (RHEL)	K^+ - Nuclear Scattering in an Effective Chiral Lagrangian Model
Wed., 4 June 2 p.m., R.12 Conf. Rm.	P.L.A. Grp. Seminar	Dr. D. K. Scott (Oxford)	The Reactions $N^{14}(p, ^4\text{He}^3)$, $N^{14}(\alpha, ^9\text{Li})$, $C^{13}(p, d)$ and the 4^+ Level of C
Wed. 4 June 3.15 p.m., Lecture Theatre	Special Lecture	Dr. J. T. Hyman	Computers in Accelerator Control Systems.

The lecture is aimed primarily at the uninitiated and will give an introduction and guide to this up-and-coming topic. The current state-of-the-art will be reviewed and time allowed for discussion and questions.

Mon., 9 June, 11.30 a.m., Lecture Theatre	Nimrod Lecture Series	Dr. C. A. Ramm (CERN)	Neutrino Experiments
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External Events

Mon., 2 June 4.15 p.m. Clarendon Lab., Oxford	Elementary Particle Theory Seminar	Dr. H. Osborn (Q.M.C.)	Some Aspects of Electromagnetic Interactions in Bound States.
Mon., 2 June 5 p.m. Univ. of Reading	Colloq.	Mr. A. P. Lenham (Shrivenham)	Infra-red Optical Constants of Anisotropic Metals.
Tues., 3 June 2 p.m., Lecture Theatre Daresbury	Daresbury Lecture Series	Dr. E. Gabathuler (D.N.P.L.)	Vector Dominance and its Predictions.

Social News

CRICKET NEWS. A.E.R.E. Evening League result.

Atlas Lab. 38 (all out), Nimrod 42 for 0. Nimrod won by 10 wickets.

"Curtiss Bennett" Cup Competition. A team drawn from various S.R.C. establishments won their first round match against the Diplomatic Services on Wednesday, 21 May.

Ray Smith, Mick Jeffries and John Moir represented the Rutherford Lab. and Tim Gover and Doug House the Atlas Lab. Scores - S.R.C. 157 for 9 (Ray Smith 50) - Diplomatic Services 83 S.R.C. won by 64 runs.

RECORD SOCIETY. Wed, 4 June, 12.30 p.m., Lecture Theatre.

Please note change of day for this week owing to Special Lecture on Tuesday.

"Jazz at the Concertgebouw Amsterdam", The Dutch Swing College Band, featuring Neva Raphaello, vocalist.

'Dixieland jazz with a mainstream touch', recorded in 1958 with the British singer, Miss Raphaello as a special guest. The D.S.C. Band has a justly large following so here is a chance to hear this group playing some of the old classics of jazz.

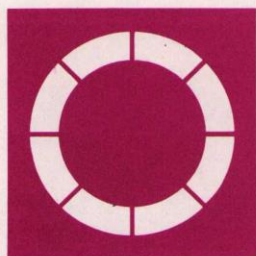
CHRISTIAN FELLOWSHIP. Fri., 6 June at 12.30 p.m., in the R.50 Conf. Rm.

Ernie Newbold speaks in the 'Everyman a Bible Student' series and his subject will be 'Christian Giving'. All are welcome.

Rutherford Laboratory
30.5.69.

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

No. 21/69
9 June 69



Rutherford Laboratory Bulletin

General News

DIVERSIFICATION OF INTERESTS AT THE LABORATORY. The Chairman of the S.R.C., in his recent talk, mentioned that an effort would be made to increase the number of interests of the Rutherford Laboratory. In this connection, various members of the staff have recently taken on fresh activities not connected with High Energy Physics.

Mr. J. Delury is acting as the Engineering Project Manager for the NIMBUS D Satellite Project which is concerned with measuring atmospheric temperature by means of infra-red spectroscopy. He will spend an appreciable amount of his time at the Universities of Oxford and Reading.

The Royal Observatory Edinburgh and the Institute of Astrophysics in Liege are collaborating in an ultra-violet photometry experiment, one of six contained in the TD-1 Satellite due to be launched on an American Thor-Delta rocket in the U.S.A. in February or March 1972. It will yield information about the temperature composition of early type stars and about the properties of interstellar matter. Mr. E. G. Higgins is working on the engineering aspects of this project. Mr. H. Wroe and Mr. S. Webb are assisting the Edinburgh team with instrument calibration. Dr. R. Wilson of the U.V. Spectroscopy Unit at Culham has overall responsibility for the project.

Other members of the Laboratory will be assisting in both these projects from time to time.

A LABORATORY FIRST. The 1.5 metre bubble chamber team and their collaborators from CERN are to be congratulated on achieving a first for a major development of the bubble chamber technique. During Cycle 5, a perspex target containing liquid hydrogen was operated within the 1.5 metre chamber filled with a 50% neon hydrogen mixture.

This system is equivalent to having a hydrogen chamber inside a heavy liquid chamber and gives the benefits of both systems. Reactions occur on free protons in the hydrogen whilst the neon gives the gamma ray and electron detection efficiency of the heavy liquid. A range of high energy physics experiments become possible which could not be tackled by previous techniques.

This work follows engineering runs at DESY, Frascati, and in the 10 inch chamber at the R.H.E.L.

TOWN MEETING. On Friday 13 June a meeting of invited members of the Nuclear Physics community will be held in the Lecture Theatre of the Rutherford Laboratory, commencing at 11.00 a.m.

Representatives from various Universities will meet the Science Research Council's Nuclear Physics Board to hear and discuss the future policy and programme of the Board as recently outlined to the Rutherford Laboratory by the Chairman of the S.R.C.

Lunch will be taken at approximately 1.15 p.m. and other users of the restaurant are advised to avoid this time where possible.

FILM NOTICE. It is Period 6. Colour Strip - YELLOW for $\beta\gamma$ and fast neutron films. Next film badge change - Monday 16 June.

BURSARIES. Applications are invited for awards under the Royal Society and Nuffield Foundation Commonwealth Bursaries scheme beginning during the period January to June 1970 or later. The closing date for applications is 15 September 1969. Details may be obtained from H. F. Norris, Building R.20, Ext. 484.

OVERSEAS VISITS. Dr. T. G. Walker and Mr. J. H. Hiddleston, to CERN, 8-10 June to attend Omega meeting and for discussions on computer controlled light-pulsing systems.

Mr. G. Hall and Mr. G. B. Stapleton, to CERN, 8-11 June, to participate in a radiation damage dosimetry experiment with the CERN P.S.

Dr. A. T. Lea to Denmark, 8-25 June, to collaborate with Prof. J. Hamilton in Copenhagen (NORDITA)

Dr. G. H. Stafford, to DESY, Hamburg, 10-11 June, to give a lecture.

Mr. W. T. Smith and Mr. A. T. Gresham, to Holland 10-11 June, to discuss refrigeration problems at Philips Research Laboratories, Eindhoven.

Mr. A. Carne, to West Germany, 10-13 June, to attend Symposium on Superconducting RF Separators at the Institut Fur Experimentelle Kernphysik, Karlsruhe.

Dr. R. Newport to the U.S.A., 10-29 June, to attend Cryogenic Engineering Conference in Los Angeles and to visit other Laboratories.

Dr. M. R. Jane, to CERN, 10 June for $3\frac{1}{2}$ weeks, for data run on $K^0 \rightarrow 2\pi^0$ interference experiment.

Dr. L. C. W. Hobbs, to Germany and Belgium, 11-13 June to accompany Dr. W. L. Francis on a CERN Committee of Council visit to the sites offered by Germany and Belgium for the 300 GeV machine.

Dr. R. Taylor and Mr. M. J. Mitchell, to the U.S.A. 12-21 June to visit IBM, Poughkeepsie (N.Y.)

Mr. J. D. Milne, to the U.S.A., 13-24 June, to attend Cryogenic Engineering Conference in Los Angeles and to visit other Laboratories.

Dr. R. C. Hanna, to Italy, 13-30 June, to attend Varenna Conference on "Physics with Storage Rings".

Machine Schedules

NIMROD Cycle 6 (3.6.69-24.6.69)

Machine Physics

High Energy Physics (K12, K13, K14A, P71, K8, K9 and K10S)

Full details of Cycle 6 were given in Bulletin No. 20/69

P.L.A.

Date

10 June

11-15 June

Team

Radiation Protection

Experiment

Foil Calibrations

Shut-down period

Internal Events

Mon., 9 June 11.30 a.m., Lecture Theatre	Nimrod Lecture Series	Dr. C.A. Ramm (CERN)	Neutrino Experiments
Mon., 9 June 2.30 p.m. Lecture Theatre	Special Lecture	Prof. S.P. Kapitza (Inst. of Phys. Problems, Moscow)	Development of a Microtron and its Application to Nuclear Physics.
Wed., 11 June, 11.00 a.m. Conf. Rm., R.1.	H.E.P. Disc. Grp.	Dr. R.E. Catkosky (Camb. U.)	Description of Large Angle Scattering.
Fri. 13 June., 11.00 a.m. Lecture Theatre	Town Meeting	All day meeting, by invitation only (For details see General News Section)	
Mon. 16 June, 11.30 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. H. Eugene Fisk (R.H.E.L.)	Experimental Test of the $\Delta S = \Delta Q$ Rule

External Events

Mon., 9 June 4.15 p.m. Clarendon Lab. Oxford	Elementary Particle Theory Seminar	Dr. D. B. Fairlie (Durham)	How to Dualize on Amplitude
Tues., 10 June, 2.30 p.m. 21 Banbury Rd., Oxford	Nuclear Structure Seminar	Dr. A. Bernstein (M.I.T. and Saclay)	Iso-scatter Transition Rates from ($\alpha \alpha'$) Reactions.
Tues., 10 June, 5.30 p.m. Imp. Coll., London	Inst. of Maths Meeting	Prof. M. J. Lighthill (Imp. Coll.)	Hydromechanics of Aquatic Animal Propulsion
Thur., 12 June, 4.15 p.m. Clarendon Lab., Oxford	Theor. Phys. Seminar	Prof. F. Bassani (Pisa)	Localized States and Band Structure in Solids.
Thur., 12 June., 8.30 p.m. 21 Banbury Rd., Oxford	Seminar in Elementary Particle Physics	Dr. R. Cool (Brookhaven)	The Current Experimental Program at Brookhaven.
EVENT AT A.E.R.A.			
Wed., 11 June, 11.00 a.m. Conf. Rm., H.8	Nucl. Phys. Colloq.	Prof. S.P. Kapitza (Inst. of Phys. Problems Moscow)	Photofission.

Social News

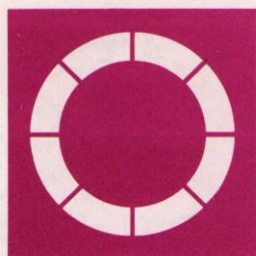
RECORD SOCIETY. 12.30 p.m., Tues., 10 June, Lecture Theatre (all welcome)
Extracts from "Carmina Burana" by Carl Orff. (Stereo)

The Leipzig Radio Choir, Childrens Choir and Symphony Orchestra, conducted by Herbert Kegel, with Soprano, Tenor and two Baritone Soloists.

This strikingly original work, often heard as background music to TV productions, is based on a collection of 13th Century poems by the Goliards, a pseudo-order of wandering minstrel scholars and clerks, which was discovered in a Bavarian Benedictine Monastery in 1803. The poems which are mostly in popular Latin, together with some old French and German, are concerned mainly with the delights of nature, food, wine and love. The composer has set a selection of these to his own tunes, accompanied by primitive rhythms and bright orchestration. The sections are entitled: "In Springtime", "In the Tavern", and "The Court of Love" (The Record Committee regrets that it will not be possible to provide translations!)

CHRISTIAN FELLOWSHIP. 12.30 p.m. Fri., 13 June, Conf. Rm. R.50. Group Discussion on the past year's programme and the forward look of the Fellowship. The discussion will be continued on 20 June.

No. 22/69
16 June 69



Rutherford Laboratory Bulletin

General News

OBITUARY NOTICE. We deeply regret to announce the death of Mrs. Blanc on Sunday 8 June. Alice Blanc had been employed as a part-time domestic worker at the Cosensers House, Abingdon for over twelve years. She will be sadly missed by her many friends and relatives. Our deepest sympathy is extended to her husband.

FILM NOTICE. Period 7 commences Monday, 16 June. Colour Strip - GREEN for β and fast neutron films. TLD issue to people with surnames beginning Y, Z, A, B.

MISSING EQUIPMENT. The following item of equipment was mislaid during office moving from R50 to R25 on 30 May 1969:-

5 cwt Hemp Rope Block Hoist, Makers No: 2962/1 (FELCO), other identifying marks, RLX 4446, metal blocks painted red.

Will anyone with information on the present whereabouts of this item please contact Mr. P.E. Hatton, Ext. 224 as soon as possible.

EXTERNAL COURSE. The Borough Polytechnic have announced a two day course of lectures and laboratory demonstrations on "Modern Methods of Impedance Measurement", commencing at 10 a.m. on Tuesday 24th June and finishing at 5 p.m. on Wednesday 25th June 1969. Further information from Mrs. S. Fones, R.20, Ext. 495.

OVERSEAS VISITS. Dr. R.J.N. Phillips, to Zakopane, Poland, 15-22 June, to take part, and lecture, in IX Cracow Summer School.

Dr. J.R.J. Bennett, to Saclay, France, 17-20 June to present a paper entitled "A Multiply Charged Ion Source", at the International Symposium on Ion Sources.

Mr. J.A. Fox to CERN, 17 June to attend 300 GeV study group meeting on 18 June. He will then proceed to France to visit the Marseille division of electricite de France on 19 June returning to the Lab. on 21 June.

Machine Schedules

NIMROD Cycle 6 (3.6.69 - 24.6.69).

Machine Physics: High Energy Physics (K12, K13, K14A, P71, K8, K9 and K10S). Full details of Cycle 6 were given in Bulletin No: 20/69.

P.L.A.

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
16-21 June	Oxford Univ.	Differential Cross-Section Measurements on $N^{15}(p, \alpha)$ and $S^{32}(p, \alpha)$.
22-29 June	King's Coll., London	Elastic Scattering from $Fe^{54} - Ge^{82}$

Internal Events

Mon., 16 June 11.30 a.m. Lecture Theatre	Nimrod Lecture Series	Dr. H. Eugene Fisk (RHEL)	Experimental Test of the $\Delta S = \Delta Q$ Rule.
Wed., 18 June, 11 a.m. Conf. Rm., R.1	H.E.P. Disc. Grp.	Prof. P.T. Matthews (Imp. Coll.)	General Expansion of Scattering Amplitudes.
Wed., 18 June, 12.45 p.m., Lecture Theatre.	Film		'The ABC of NPK', a 21 minute colour film. (See 'Social News' for details).
Mon., 23 June, 11.30 a.m., Lecture Theatre.	Nimrod Lecture Series	Dr. Ian Blair (A.E.R.E.)	Moonshine

External Events

Mon., 16 June, 4.15 p.m., Clarendon Lab., Oxford.	Elementary Particle Theory	Dr. R. Rockmore (Imp. Coll.)	Sakurai's Weak Hamiltonian and Calculations Involving Neutral Currents.
Thurs., 19 June, 2 p.m., Univ. of Southampton	Surface Phys. Grp.	Dr. S.H. Lee (Pennsylvania State/Southampton Univs.)	Photo-Capacitance in Metal/Insulator/Semiconductor Systems.
Thurs., 19 June, 4.15 p.m., Clarendon Lab., Oxford.	Theor. Phys. Seminar	Dr. A. Stamp	The SU_3 Model and Spin-Orbit Coupling.
Thurs., 19 June, 8.30 p.m., 21, Banbury Rd., Oxford.	Seminar in Elementary Particle Physics.	Dr. H. Steiner (Berkeley and CERN)	The Development of Discharge Chambers and their possible Applications for Experiments.

Social News

CHRISTIAN FELLOWSHIP. 12.30 p.m., Fri., 20 June, Conf. Rm., R.50.

'Group Discussion' on the past year's programme and the forward look of the Fellowship - continued from previous week. All are welcome.

FILM SHOW. Wed., 18 June, 12.45 pm in the Lecture Theatre. An A.E.R.E. Horticultural Society, lunch time film show. Gardeners, and there are an awful lot of you around, here is a film which deals with the essential requirements of plant growth - air, light, warmth, and water, and the importance of chemical elements as plant foods. After digesting the information presented to you in this film your problems should vanish! The title is "The ABC of N.P.K.", it is in colour, lasts for 21 minutes, and has been made by Fisons Fertilizers Ltd.

RECORD SOCIETY, 12.30 p.m., Tues., 17 June, Lecture Theatre (All welcome).

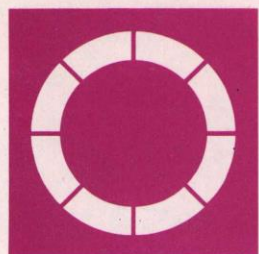
The Instruments of the Orchestra (Part 2).

Introduced by Sir Adrian Boult, with members of the London Philharmonic Orchestra (stereo). The first side of this record, covering the String and Brass sections was played in April. In the current programme we shall play the second side which includes all the wood-wind and Percussion instruments. Hi-Fi enthusiasts may be interested to know the lowest notes of the Double Bassoon, here realistically recorded go down to about 30 cycles.

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

Rutherford Laboratory.
13.6.69.

No. 23/69
23 June 69



Rutherford Laboratory Bulletin

General News

BIRTHDAY HONOURS We are pleased to be able to record the conferment of a Knighthood in the Queens Birthday Honours' List upon Professor B.H. Flowers, Chairman of the Council.

Our congratulations are also extended to Mr. G.E.A.G. Barnett of the Radio and Space Research Station, who was awarded the British Empire Medal.

FILM NOTICE It is Period 7. Colour Strip - GREEN for γ and fast neutron films. Please check that you are wearing the correct films and that all old films are returned.

TO WHOM ? A letter has been received from the Museum Hotel, Amsterdam, with reference to a booking for 2 - 4 July. Would the person to whom this refers please contact Travel Section as soon as possible.

VISITORS Thirty pupils and members of staff from Millfield School, Street, Somerset, will visit the Laboratory on Tuesday, 24 June.

OVERSEAS VISITS Mr. M.N. Wilson, to Czechoslovakia, 22 - 27 June, to attend the European Physical Society Meeting at Smolenice on 'Applied Superconductivity'.

The following will be attending the Lund International Conference on Elementary Particles 25 June - 1 July:-

Dr. N.E. Booth, Dr. I. Butterworth, Dr. C.J.S. Damerell, Dr. J.H. Field, Dr. C.M. Fisher, Dr. G.C. Oades, Dr. V.Z. Peterson and Dr. T.G. Walker.

Dr. G. A. Ringland will also be attending the Lund Conference after which he will be attending the 'Ettore Majorana' International School of Physics at Erice, Sicily from 3 - 19 July.

Machine Schedules

NIMROD Cycle 7 (24.6.69 - 15.7.69)
Machine Physics,
High Energy Physics.

<u>Team</u>	<u>Beam</u>	<u>Experiment</u>	
UCL/RHEL	K8	K ⁺ p Differential Cross Sections between 1.6 and 2.35 GeV/c.	Data
RHEL/CERN/UCL	K9	Testing of the Target Facility in the Hydrogen Bubble Chamber.	Setting Up
Oxford U.	K10 S	Study of K ⁻ p → Neutral Final States for K ⁻ Momenta in the Range 0.6 - 1.8 GeV/c.	Data

P.L.A.

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
23 - 29 June	King's Coll. London	Elastic Scattering from Fe ⁵⁴ - Ge ⁸²
30 June - 4 July		Shut-down period.

Internal Events

Mon., 23 June, 11.30 a.m. Lecture Theatre.	Nimrod Lecture Series	Dr. Ian Blair (AERE)	Moonshine.
Wed., 25 June, 11 a.m. Conf. Rm., R.1	HEP Disc. Grp.	Dr. G. Venturi (RHEL)	K ⁺ - nucleon Scattering in an Effective Chiral Lagrangian Model.
Mon., 30 June, 11.30 a.m. Lecture Theatre.	Nimrod Lecture Series	Dr. N. Dombey (Sussex)	The Hadronic Interactions of Photons.

External Events

Wed., 25 June, 4 p.m. Univ. Coll. London.	Elementary Particle Physics Seminar	Dr. G. E. Hite (U. of Oregon)	The Regge Pole Model
Thurs., 26 June, 9.30 a.m. Oxford Coll. of Tech.	Eng. Dept. Staff Lecture	D. North (P.S.F. Ltd)	Super Plastic Alloys.

Social News

S.R.C. SPORTS DAY. The second annual Sports Day will be held at Chiswick on Wednesday 2 July. Staff are reminded that subject to certain requirements given in SRC Circular 16/69 they can be granted time-off for the purpose of attending as spectators. Attendance by participants may be treated as official duty. Names of spectators or players to Peter Craske please, Ext. 275. Final details of the events etc. in next weeks Bulletin.

30 MINUTE BREAK - CHRISTIAN FELLOWSHIP. Continuing the 'Everyman a Bible Student Series, the Fellowship will study the theme "Inspiration". The Bible claims to be clearly God's word to man. Join the Group at 12.30 p.m. on Friday, 20 June, in the R.50 Conference Room for a discussion break.

RECORD SOCIETY Tues., 24 June, 12.30 p.m. Lecture Theatre (all welcome).

Mendelssohn: Incidental Music to "A Midsummer Night's Dream".

This marvellously evocative score justly deserves the honour of being called the finest incidental music ever written to a stage play. From the magical opening bars of the Overture (written when the composer was only 17) to the last joyous cymbal clash of the (still unsurpassed) Wedding March, the spell is never broken. What more appropriate day to play it on than this?

"Incidentally" this will be the last programme of the season, so we hope you will join us for the occasion.

H. F. Norris. Ext. 484

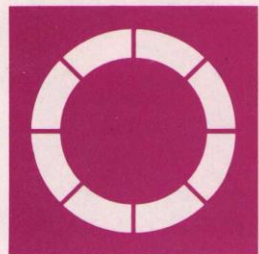
Scientific Admin. Group
Building R.20.

Rutherford Laboratory

20.6.69.

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No 24/69
30 June 69



Rutherford Laboratory Bulletin

General News

PLA News. As the PLA is due to be closed down by October of this year and all the available machine time has been allocated, the last of the PLA scheduling meeting will be held on Wednesday, 2nd July. After the scheduling, Professor W.D. Allen and Professor K.W. Allen, from Oxford will be discussing some future possibilities for nuclear structure facilities and the physics case for a new machine. Further details of this seminar are given in "Internal Events". Please note change of venue.

VISITORS. Twenty-two members of staff and pupils of Guildford County Technical College will visit the Atlas and Rutherford Laboratories on Tuesday, 1 July. After lunch this party will be joined by six pupils from Park House School, Newbury.

FILM NOTICE. It is Period 7. Colour Strip - GREEN for $\beta\beta$ and fast neutron films. Please check that you are wearing the correct films.

OVERSEAS VISITS. Dr. D. H. Reading and Dr. A. N. Kamal, to Sicily, 2 and 3 July respectively, to attend the "Ettore Majorana" Summer School at Erice, returning on 19 July.

Dr. G. Manning, to CERN, 3-4 July, to attend N.P.R.C. Meeting.

Mr. J. A. Fox, to Brussels, 4 July for discussions with Electro-Belge on static power supply computer results for Focant.

Machine Schedules

NIMROD Cycle 7 (24.6.69. - 15.7.69.).

Machine Physics: High Energy Physics (K8, K9 and K10S).

Full details of cycle 7 were given in Bulletin No. 23/69.

P.L.A.

<u>Date</u>	<u>Team</u>	<u>Experiment</u>
30 June - 4 July		Shut down period
5 - 7 July		P.P.S. Tests

Internal Events

Mon. 30 June, 11.30 am Lecture Theatre	Nimrod Lecture Series	Dr. N. Dombey (Sussex)	The Hadronic Interactions of Photons
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SEMICONDUCTOR SEMINAR. A seminar on the current and future product capability of the National Semiconductor Corporation, U.S.A., will be held from 2.30 to 4.30 p.m. on Monday 30 June in the Lecture Theatre. The speaker will be Mr. Tom Thorkelson and the event has been arranged by the Athena Semiconductor Marketing Co. Ltd., Egham, Surrey. The subjects will include L.I.C., T.T.L. and M.O.S. techniques and ample time will be available for questions. Further information may be obtained from B. E. Kingdon, R.20, Ext. 6297.

Wed. 2 July, 11a.m. Conf. Rm., R.1	H.E.P. Disc Group	Dr. E. Truhlik (Prague)	N-D Scattering
Wed. 2 July 2 p.m. Lecture Theatre	PLA Group Seminar	Prof. W. D. Allen and Prof. K. W. Allen (Oxford)	Future Possibilities in Nuclear Structure Facilities in the U.K.
Mon. 7 July 11.30 a.m. Lecture Theatre	Nimrod Lecture Series	Prof. P. Fowler (Bristol)	Very Heavy Elements in the Primary Cosmic Rays

Social News

S.R.C. SPORTS DAY. The second annual Sports Day will be held at Chiswick on Wednesday, 2 July.

Activities:- Cricket Competition, Bowls, Tennis (Mixed and Mens Doubles), Six-a-side Football.

Staff are reminded that subject to certain requirements given in S.R.C. Circular 13/69, they can be granted time off for the purpose of attending as spectators. Attendance by participants will be treated as official duty. Staff who wish to participate in any of the above activities are asked to contact Peter Craske, Ext 275, by Monday, 30th June at the latest.

There will be a few vacant seats on the team coaches for any spectator wishing to go. Coaches will leave the Laboratory at 09.15 and leave Chiswick at approximately 21.00 for the return journey.

30 MINUTE BREAK - CHRISTIAN FELLOWSHIP. The Fellowship will meet for a quiet time of prayer in the small Conference Room, R.1 at 12.30 p.m. on Friday, 4 July.

Rutherford Laboratory
27.6.69.

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

STOP PRESS

A fountain pen has been found between R.25 and R.20. Will the loser please contact the Admin. Office Bldg. R.1, Ext. 258.
LDB.