

22 November - 6 December 1976

RL LECTURE We welcome Professor Alan Gibson as the speaker in the next RL Lecture to be given in the Lecture Theatre at 15.15 on Thursday 25 November. As we announced in Bulletin No 16, Prof Gibson of the Department of Physics, University of Essex has been appointed Head of the new Laser Division at the RL with effect from 1 January 1977.

The title of his talk is - 'Lasers'.

'Lasers now find applications in many areas of science and technology. They have been transformed in the past ten years from an interesting scientific curiosity to become an important tool.

In this lecture, an elementary introduction to lasers will be given, leading on to the design of the laser currently being installed at the Rutherford Laboratory, which incidentally will be capable of generating peak powers of about 1,000,000 Megawatts.

During the course of the Lecture, Professor Gibson hopes to demonstrate practical lasers to illustrate features of their design and performance.

(Now that everyone - well, 250 people - understand all about particle physics! - why not expand your knowledge by hearing all about lasers and their many varieties - Ed.).

MORE SAD NEWS It is with deep regret that we bring news of the death on Wednesday afternoon 17 November of another old colleague, Jack Plester, after a few days in hospital. He was aged 66. Jack retired from the Lab 14 months ago after working for 10 years in the Bill Paying Section, following a career in the Army where he had risen to the rank of Lt. Colonel. We extend our deepest sympathy to his wife and son.

LO & BEHOLD Dr S Y Lo who spent the month of October in the Theory Division at the RL has lost his note book which is full of scientific notes. Full description as follows:- Blue and white W H Smith notebook, SIZE A4, multiholed wire binding with his name - L O - on the front cover. Anyone finding this is asked to hand it in to Jean Ling, Roger Phillips secretary.

FILM BADGE NOTICE It is Period 12. Colour Strip - YELLOW for $\beta\gamma$ films and neutron packs. Next film badge issue - Monday 29 November.

TALKING POINT Last week Chris Damerell responded to the requests made after his talk on the S120 experiment, for more talks of that kind. This time his subject was the 1975 Nobel Prize for Physics, awarded jointly to two American physicists for their discovery of the ψ/J particle two years ago. Although it appeared to be a difficult subject for the layman to digest, Chris once again demonstrated his ability in getting the story across. A special mention must be given to Frank Close who shared the honours with Chris. Frank's introductory talk on the structure of matter was very successful, his 'visuals' being particularly effective. Even more important was his final session which placed particle physics in its true position as a tool in the understanding of the forces of nature and not as an end in itself - a point too often forgotten.

There appears to be a growing demand for a repeat, - its a possibility!

MISSING EQUIPMENT The following item of equipment has been reported missing:-
DVM Type - Digital Measurements 2005. Ser No. 13857.
Would the borrower please return it to V A Thorp, R18 Electronic Workshop.

SALES TO EMPLOYEES Sales of scrap metal/plastics as set out in RLN 12/73 will be made on 3rd and 17th December.

OVERSEAS VISITS Dr G E Kalmus, to CERN, 21-25 Nov, to attend various meetings.
Dr R W Newport, to CERN, 22-24 Nov., to attend meeting of the European Hybrid Spectrometer construction committee.
Mr E W Fitzharris, to CERN, 22-26 Nov., to participate in TST tests with BEBC.
Mr D A Gray, to CERN, 24-26 Nov., to attend Plenary ECFA meeting and ECAS meeting.
Dr L C W Hobbs, to ILL Grenoble, 24-26 Nov., to attend ILL Steering Committee meeting and hold discussions on SNS with CNRS/CEA.
Dr G C Stirling, to ILL Grenoble, 24-26 Nov., will also attend discussions.
Dr Margaret M Curtis, to Amsterdam, 25-26 Nov., to attend SEAS Executive Board Meeting.
Dr B Alper, to CERN, 29 Nov - 11 Dec., to work on WA3 and attend a collaboration meeting.
Dr G C Stirling, to Ljubljana, 30 Nov - 5 Dec., to attend IAEA meeting on neutron scattering in applied research.
Dr K Sumorok, to CERN, 1 - 10 Dec., to work on OMEGA outline software.

INTERNAL EVENTS

NIMROD LECTURE SERIES

Monday 22 November
11.30
Lecture Theatre

Weak Interaction Review OR, Charm and CP Violation

Dr P K Kabir/CERN

HEP SEMINAR

Wednesday 24 November
11.00
R61 Conference Room

Single Diffractive Excitation at the CERN ISR

F K Loebinger/Manchester University

HEP DATA HANDLING GROUP SEMINAR

Wednesday 24 November
13.30
R61 Conference Room

A Computer Approach to the Wire-wrapping Problem

D Ould/RL

RUTHERFORD LABORATORY LECTURE

Thursday 25 November
15.15
Lecture Theatre

Lasers

Professor A F Gibson/University of Essex (see News section for details).

FIRE PRECAUTIONS FILM

Friday 26 November, 1230 & 1315
Tuesday 30 November, 1230 & 1315
Lecture Theatre

Shame About Sheila. This film, produced by the Post Office Telecommunications Publicity Division illustrates the correct extinguisher or fire fighting appliance to use for any given type of fire. Foam, dry powder, BCF, CO₂ or water for each of these extinguisher types has its own specific use; use the wrong one and you do more harm than good.

NIMROD LECTURE SERIES

Monday 29 November
11.30
Lecture Theatre

Recent Results on 32 GeV/c K⁺-p and $\bar{p}p$ Interactions at Serpukhov in the Mirabelle Bubble Chamber.

Professor R Barloutaud/D. Ph. P E Saclay

HEP SEMINAR

Tuesday 30 November
11.00
R61 Conference Room

The Size and Shape of Inelastic Diffractive Dissociation

U Sukhatme/DAMPT

HEP SEMINAR

Wednesday 1 December
11.00
R61 Conference Room

$\bar{K}N$ Interactions in the Resonance Region

B Martin/UCL

HORTICULTURAL SOCIETY EVENING LECTURE

The Society is presenting its first evening lecture of the 1976-77 season.

Mrs Beryl Fudge will be talking about & demonstrating the art of flower decoration with special emphasis on Christmas decorations. The talk will be given on Wednesday, 8 December starting at 1930 hours in the R22 Lecture Theatre. Coffee and biscuits will be served in the interval and admission will be 20p. All are welcome - so bring along your friends. Members who bring along their membership cards will receive a pleasant surprise. Non members (Yes - they are welcome) are permitted to look on with envy - moral - join now!

REC-SOC A.G.M.

The A.G.M. of the Recreational Society will be held at 12.30 p.m.

on Wednesday 24 November in the R12 Conference Room.

Nominations for the offices of Chairman, Vice-Chairman, Hon. Sec., Hon Treasurer and six committee members shall be delivered in writing to the Secretary - P E Craske, Bldg. R2., Ext 232 before Monday 22 November.

All nominations shall be signed by two members of the Rec. Soc. and shall indicate that they have obtained the consent of the members nominated.

CHRISTIAN FELLOWSHIP

Our programme for the next two weeks includes a visit,

on 26 November from Mr Terence Aldridge, who is a qualified dentist as well as a pastor in Oxford, and a Prayer Meeting on 3 December. All are welcome to these meetings which are held in the R12 Conference Room at 12.30 p.m.

EXTERNAL EVENTS

ELEMENTARY PARTICLE PHYSICS SEMINARS/NP LAB. OX - 1430 hrs.

- 25 Nov : Dr R C Arnold/Argonne & R L - The scale of weak interactions from symmetry breakdown in the strong interactions.
2 Dec : Dr R D Baker/RL - Analysis for the $\pi^- p \rightarrow \Lambda K^0$ reaction up to c.m. energy 2 GeV.

THEORETICAL PHYSICS SEMINAR/CLARENDON LAB - 1615 hrs.

- 25 Nov : Prof M Atiyah/Maths. Inst. - Solitons - a mathematician's view.

ELEMENTARY PARTICLE THEORY SEMINARS/NP DEPT. OX - 1430 hrs.

- 26 Nov : Dr G Karl/RL - Review of η - η' mixing.
3 Dec : Dr F K W Schrempf/CERN - Surface waves as carriers of hadronic diffraction.

HEP SEMINARS/MANCHESTER UNIV - 1415 hrs.

- 25 Nov : I S Barker - Models with more than one heavy quark: an introduction.
2 Dec : A J G Hey/Soton - SU(6), and the M.I.T. bag.

THEORETICAL PHYSICS SEMINARS/MANCHESTER UNIV. 1430 hrs.

- 24 Nov : Dr D Weaire/Heriot-Watt - Anderson localisation.
1 Dec : Dr P Eggleton/Camb - Synthesis of heavy elements in stars

THEORY SEMINARS AT DARESBUURY LAB - 1400 hrs.

- 29 Nov : Dr K Hartman/Ox - Alpha scattering and resonances.
6 Dec : Dr P J Robinson/UMIST - The current status of RRM theory and its applications.

THEORETICAL & HEP SEMINARS AT SOUTHAMPTON U - 1430 hrs.

- 26 Nov : Prof P K Kabir/CERN - Title to be announced.
3 Dec : Dr F Bullock/UCL - Latest results in neutrino physics.

NUCLEAR PHYSICS SEMINAR/KING'S COLLEGE - 1400 hrs.

- 1 Dec : Dr R J N Phillips/RL - Charm and partons for pedestrians.

THEORETICAL PHYSICS SEMINARS AT QMC - 1615 hrs.

- 22 Nov : Prof T W B Kibble/IC - Spontaneous symmetry breaking and cosmic domain structure.
29 Nov : Dr R B Stinchcombe/Ox - Renormalisation group for random systems.

HEP SEMINARS/CAMB. U. SEMINAR ROOM A - 1500 hrs.

- 25 Nov : E Gabathuler/CERN, RL - Deep Inelastic Scattering.
2 Dec : F & B Schrempf/CERN - Title to be announced.

HEP SEMINARS/CAMB. U. SEMINAR ROOM B - 1500 hrs.

- 24 Nov : R J Cashmore/Ox - Topic: Meson Spectroscopy
1 Dec : R C Arnold/Argonne & R L: Determination of the scale for weak and electromagnetic interactions through spontaneous breakdown of strong-interaction symmetries.

HEP SEMINAR/BIRMINGHAM U. - (time not given)

- 3 Dec : Dr J Albright/Florida State - Partial wave analysis of low energy K n reactions.

PHYSICS & GEOPHYSICS COLLOQUIA/BRISTOL U. - 1700 hrs.

- 29 Nov : Dr A C Fabian/Camb. - Bursting cosmic X-ray sources.
6 Dec : Prof J Enderby/Bristol - The structure of aqueous solutions.

NUCL. PHYS. DIV. COLLOQUIUM/AERE, CONF. RM., H8 - 1530 hrs.

- 2 Dec : Dr J B Lewis/AERE - Sea disposal of solid radioactive wastes.

THEOR. PHYS. SEMINARS/AERE, CONF. RM., BLDG 8.9 - 1415 hrs.

- 26 Nov : Dr T E Cranshaw - Iron alloys investigated by Mossbauer spectroscopy.
3 Dec : Prof K S Song/Ottawa - A new approach for LCAO calculations in solids.

Retirements

Retirement stories are running late and in some cases, out of order, time-wise. The answer to many enquirers is patience - some facts do need quite a spot of researching and woe betide your editor if a date goes astray. Also there are people who wish to depart very quietly, and to clear up any misunderstanding - their wishes are always met. However, second thoughts sometimes prevail; an accidental meeting with Peter Dunk who left at the end of October resulted in a request to include his best wishes to all old friends and colleagues. Peter also says cheerio to those he was unable to see personally before leaving.

The August 1963 issue of ORBIT recorded the arrival amongst others, of D R Jones. David Jones actually 'signed in', in July and joined the Electrostatic Generator Group, more commonly known as the Oxford Project, staying until its completion in early 1966.

Not everybody will know that David is an 'old salt' having served in the Royal Navy from 1940-53 as an electrical artificer, acquiring a lot of experience on a variety of 'electrics' ranging from guns, compasses to machinery of many types. He was a member of the much sunk Ark Royal aircraft carrier when it was finally sunk in the Med.

David having left the Navy joined AERE in 1953 as a craftsman moving as a technician to AWRE in 1957 before finally anchoring firmly at the RL.

Following his term with the Oxford Group he spent a year on the Variable Energy Cyclotron before moving on to the High Field Bubble Chamber project. David one gathers was involved with the development of the

RACON test coils for the HFBC a project which was eventually cancelled in the early 70's. The experience gained during this time was however put to good use and for the past 5 years David has worked on exotic and unusual power supplies for superconducting magnets, one such supply being spoken of as "the biggest flash lamp battery in the lab" - 2 volts, 10,000 amps!

Many friends and colleagues gathered to hear David Thomas speak of David's contributions to the Lab, to wish him a happy retirement and to pass over gifts of a B & D $\frac{1}{2}$ " drill and a multimeter.

Lunch-time tennis players (in particular the younger members) will vouch for his fitness, and energy. David was never happy in the Lab unless he was fully stretched so the parting gifts will no doubt be put to full use in, one is assured a very active retirement.

David thanked everyone for his presents and says cheerio to all he was unable to see before leaving.

Retirements cont.

"We would say we never had a better lad through our shops", - some lad - some reference!

Since that day in 1935 when the lad, Mr J B Marsh, known to all as Joe, completed his apprenticeship at the East Ferry Road Eng. Co., he has had, in his own words, "an exciting and interesting life."

After seven years, at STC, the LCC, the Office of Works and back to industry, he joined TRE at Swanage in 1942 to work on Radar applications. "It was so exciting to be in at the start of a great idea, Radar was so positively right and to see so many uses in the armed forces being rapidly developed. What an extraordinary moment when the whole research establishment was moved from Swanage to Malvern in 24 hours".

With the end of the war came the urgency to get on with atomic energy and AERE unit, formed at Malvern, started designing accelerators. Joe paid a visit to Harwell in 1946 soon after it had been taken over from the RAF when, as he remarks - "it was a lonely place, a couple of warders, the great empty hangars - doors open to the elements. Then the astounding build up of people and activity such that within a year the place was unrecognisable, a marvellous level of organisation and action".

Joe moved to Harwell on the first of January 1947 working first in the Electronics Division on radiation monitoring equipment, then to a small General Physics group and the start of the design of the P.L.A.

"We soon moved (in 1954) to a 'temporary' hut out on the airfield, the first building allowed outside the AERE perimeter fence, it was so rural, - pheasant, grouse and hares besporting themselves just outside.

Then Nimrod with all the preliminary discussions and planning to start this great project. What a sight the great hole was that Nimrod was built in, cut into the Berkshire Downs as though the ground was cheese and so large that it became a local wonder".

By 1960 Joe was back on the PLA helping to complete and run the machine and start up an experimental programme. With the closure of the PLA in 1969, the nuclear physics apparatus group was formed which coincided with the need to put large experiments on at CERN and other laboratories abroad and Joe took charge of this unit.

The Director, Dr G H Stafford before presenting parting gifts from friends and colleagues spoke of his long association with Joe. He had many memories of the early days on the PLA - they were rough times with lots of problems, but Joe was the type of engineer found too infrequently - he was always producing & trying out new ideas. Dr Stafford paid tribute to Joe's valuable contribution to Nimrod and the success of the nuclear physics apparatus group. He had known Joe and his happy family for many years and he wished him an excellent retirement.

Joe thanking everyone for the gifts, (a well known multimeter and a very unusual desk pen holder,) and the Director for his kind words. He had been very fortunate to have been involved in the start of 3 Labs, Swanage/Malvern, Harwell and the RL. "It has all been so exciting and interesting. I could not have wished for better places to work, projects to work on or people to work with".

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David Hughes and Jim Pinchin left at the same time and shared their farewell celebrations at a local hostelry. Sharing is perhaps the wrong word as the two support parties were firmly instructed as to which door to use when entering said hostelry!

David joined the Lab fifteen years ago as a fitter and surveyor and apart from a six months spell at Daresbury, worked first on Nimrod and then in the Experimental Halls for the rest of his time.

After leaving school David joined the RAF serving for 8 years as an aircraft fitter. This experience was put to good use as he spent 3 years with the Danish civil airline, was involved in the Berlin air lift and served as a civilian for 12 years as a fitter and examiner for REME and the RE. One understands that at least some of this time was at the Didcot Depot and some time in the Middle East.

As David admits, he moved into a new and strange world at the Lab and at first had a high old time getting to know the job. During the past 11 years he has worked in the Experimental Halls installing and aligning beam lines, and he claims that his alignment team (Phil Kent and Bill Chapman) were the best ever.

Although David has been known as the quiet man his activities have been the reverse. At work he deservedly earned a reputation as a conscientious hard worker. Outside work his achievements (at night school) include

'O' level courses in physics, maths, Eng. Lit. and, a course on navigation. (Hall 3 is rather large!). Years ago he acquired a house which had a demolition order on it - this he turned into a charming cottage. Now he has set himself a new task and incidentally realised a life times dream. David has bought a house on a large slice of land - nearly 1 acre and apart from improvements to the house is already at work on a number of new out buildings including garage workshop etc. As he is a keen gardener, the large plot of land will give a great deal of pleasure and lots of food.

At his farewell presentation, Bob Carr spoke of David's career and of the part he had played at the Lab. He was always to be seen in the Halls twiddling little knobs and his hard work and reliability had been much appreciated. The parting gift from friends and colleagues, a cheque, would be put to good use - probably fruit trees.

David remarked that he had been 'dreading this moment'. He thanked everyone for the present and for coming along. He recalled a number of incidents during his time at the Lab, in particular his first job and the trouble over a certain gentleman's 'Brum' accent - "Can you mike the tay". (Sorry Ernie).

In conclusion David sends his best wishes and says goodbye to all he was unable to see before departing.