



INTERNAL EVENTS

NIMROD LECTURE SERIES

Monday 13 October
11.30
Lecture Theatre

Scaling Laws and Quark Model in High Energy Strong Interactions

Dr J Dias de Deus/RL

HEP SEMINAR

Tuesday 14 October
11.00
R61 Conference Room

Quark Model and Large Angle Scattering

M Kawaguchi/KEK

SEMINAR IN COMPUTING

Friday 17 October
11.00
R61 Conference Room

General Meeting

Progress Reports will be given on various aspects of C&A Division's current projects

NIMROD LECTURE SERIES

Monday 20 October
11.30
Lecture Theatre

Backward Photoproduction of ρ and f Mesons

R Marshall/Daresbury

TRADE PRESENTATION

Tuesday 21 October
10 - 12.30 & 14.00 - 16.30
Lecture Theatre

Rolf Skår and Jan Bjerke of Norsk-Data Elektronikk, Oslo, will give a presentation of their Nord-10 and Nord-50 Computers. The morning session will be concerned with hardware and the afternoon session on software including on-line demonstrations to Oslo.

Nord-10 computers were chosen for the CERN SPS control system and as the CERN NP Division "standard" computer in the face of worldwide competition. This will be the first presentation of the Nord computers in the UK.

HEP SEMINAR

Wednesday 22 October
11.00
R61 Conference Room

New Experimental Results on Hypacharge Exchange Reactions and an SU(3) Comparison with Charge Exchange Processes

Dr C J S Damerell/RL

HEP DATA HANDLING SECTION SEMINAR

Wednesday 22 October
13.30
R61 Conference Room

Report on Brussels CAMAC Conference

D Quarrie/RL

RUTHERFORD LABORATORY LECTURE

Thursday 23 October
15.15
Lecture Theatre

Vegetable Protein

Dr G A Nowacki/Central Soya International; Norman Hayes/Oppenheimer Casing Co; John E Denney/Trust House Forte Supplies

The three speakers will trace the growing and processing of soya bean; its uses in various forms of processing including TVP as applied to catering, also possibly showing samples of its incorporation into various products.

FILM SHOW

Friday 24 October
12.40
Lecture Theatre

ADVENTURES IN PERCEPTION a 21 minute colour film

The impossible drawings of the Dutch artist Maurits Escher are well known, but this film includes some incredible patterns in which the spaces between the objects forming the pattern take on the shape of the objects themselves - a fascinating film

BRIDGES IN CHINA, 10 mm, colour, showing Chinese bridges from 700 AD until the present day

THE HOLE, 8mm, colour, cartoon. A light-hearted look at man's inhumanity towards his fellow man

NIMROD LECTURE SERIES

Monday 27 October
11.30
Lecture Theatre

Dual String Dynamics and the Baryon Problem

Dr R Tucker/Lancaster University

NIMROD SCHEDULE

CYCLE 7 14.10.75 - 27.10.75

Details as per Cycle 6

EXTERNAL EVENTS

OXFORD UNIVERSITY

ELEMENTARY PARTICLE THEORY SEMINAR/NP DEPT - 14.30 hours
17 Sept : Quantization of Relativistic Strings - Dr P Goddard/DAMTP

ELEMENTARY PARTICLE PHYSICS SEMINAR/NP DEPT - 1430 hours

16 Oct : The Chicago-Harvard-Illinois-Oxford Inelastic Muon Scattering Results - Mr J Kirkbride, and, Inelastic Electron Scattering at the Stanford Conference - Dr W S C Williams

23 Oct : Neutrino Results from the Stanford Conference - Dr G Myatt

THEORETICAL ELEMENTARY PARTICLE PHYSICS SEMINAR/NP LECTURE THEATRE - 14.00 hours

14 Oct : Quark Confinement in the SLAC Bag - R C Giles/SLAC

THEORETICAL PHYSICS SEMINARS/CLARENDON LAB - 16.15 hours

16 Oct : Binary Pulsars - Dr D ter Haar

23 Oct : Magnetic Monopoles - Dr I J R Aitchison

BRISTOL UNIVERSITY

PHYSICS & GEOPHYSICS COLOQUIA/ROOM G12, ROYAL FORT - 17.00 hours

20 Oct : Planning and Measurement for Research Effectiveness - Dr K E G Meredith/CEGB, Berkeley

CAMBRIDGE UNIVERSITY

HEP SEMINARS/DEPT OF APPL MATHS & THEOR PHYS. ROOM A - 1500 hours

16 Oct : High Energy π^0 Photoproduction & Related Reactions - Dr J Storrow/Manchester & Daresbury

23 Oct : General Features of Gauge Theory Renormalisation - Dr J C Taylor/Oxford

MANCHESTER UNIVERSITY

THEORETICAL PHYSICS SEMINARS/NIELS BOHR COMMON ROOM - 14.30 hours

15 Oct : Many Body Calculations without Diagrams : Applications to Liquid ^3He - Dr K H Luhrmann/Bocham

22 Oct : Surface States on Metals - Dr J Pendry/Daresbury

HEP SEMINARS/4th FLOOR SEMINAR ROOM - 16.00 hours

13 Oct : The Discovery of J, and Recent Results from the BNL/MIT Group - Dr San Lan Wu/MIT

23 Oct : Pi-zero Photoproduction at High Energies - Dr J K Storrow/Manchester

QUEEN MARY COLLEGE

THEORETICAL PHYSICS SEMINARS/PHYSICS LECTURE THEATRE - 16.15 hours

13 Oct : Renormalisation Group Methods on a Lattice - Dr D J Wallace/Southampton

20 Oct : What Can We Learn from Polarisation Experiments - Prof M J Moravcsik/Oregon & Sussex

DARESBURY LABORATORY

THEORY SEMINARS/CONFERENCE ROOM 3 - 14.00 hours

13 Oct : The Scattering of Nuclei in the Generator Coordinate Method and the Resonating Group Method - H Friedrich/Oxford

20 Oct : On the Giant Dipole Resonances in Nuclei - C Marty/Orsay, France

LECTURE SERIES/LECTURE THEATRE - 14.00 hours

14 Oct : Backward Photoproduction of Pions - J C Thompson/Daresbury

21 Oct : Quark Model & Large Angle Scattering - M Kawaguchi/KEK

READING UNIVERSITY

PHYSICS DEPT COLLOQUIA/SMALL LECTURE THEATRE, J J THOMSON LAB - 1700 hours

13 Oct : The Alkalies Revisited - Mr R Luybaert/Reading

20 Oct : A Time and Motion Study of Nuclear Magnetic Moments - Dr M A Grace, FRS/Oxford

EVENTS AT HARWELL

NUCLEAR PHYSICS DIVISION COLLOQUIA/CONF RM, HANGAR 8 - 15.30 hours

16 Oct : Archaeological Dating & Authentication - Dr Stuart Fleming/Oxford

23 Oct : A Review of the "First-Wall" Problem, from Plasma Experiment to Fusion Reactor - Dr A M McCracken/Culham, UKAEA

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MISSING EQUIPMENT

A number of items of equipment have been reported missing and anyone with information on the present whereabouts of these items are asked to contact the person named after each item.

One 8 tread wooden step ladder, marked "R55 Electrical Techs" - J Ford, R2, Ext 6694.

Avometer Model 8, Ser No 19460 C 1253

Six intercom speakers

ANITA Calculator type 1021, Ser No 5124

Information to Inventory Section, R20, Ext 570

Electric kettle, Ser No 14/5856, lost in R1.

Gents cycle. Information to Ext 570.

J M Minicalculator and power supply, from K15S Control Room, R55, No serial numbers.

Information to R J Apsimon, R1, Ext 6247/6262

Specimen cabinet, approx size - 18"x 12"x 5", in grey painted metal and fitted with plastic drawers, missing from Room 93, R20, between April-September this year. It contains specimens for neutron scattering experiment, which, though of little commercial value are virtually irreplaceable. Information, urgently needed, to Ext 6116.

ROOM SERVICE ?

Brian Colyer recently attended the XIV International Congress on Refrigeration held in Moscow from 20-29 September. On the return flight he passed the time by jotting down the following impressions of his visit to the USSR.

The International Institute of Refrigeration, which has its headquarters in Paris, is an organization supported by the governments of 53 countries. It was founded in 1908 and deals with all aspects of refrigeration, from food processing and storage to cryogenics at liquid helium temperatures, and is subdivided into "commissions", each of which deals with one branch of the subject.

I arrived at Sheremetievo Airport on 19 September and after a delay of five hours, settled into my room at the Rossia Hotel, which has 2500 bedrooms. The Congress was formally opened in the State Central Concert Hall on Saturday 20, and in the evening a reception was held, when food and drink were consumed at an alarming rate by 1700 participants from 43 countries.

Sunday was devoted to organized tours of Moscow, and in the evening we were given an excellent concert. Work began on Monday, and lasted until Saturday. My interest was in Commission A2, which deals with cryogenics and micro-cryogenics: 34 papers were presented, and excellent translation was provided by interpreters who had never been outside the USSR. To me the most interesting papers were those dealing with computer simulation of cryogenic processes, and a Russian paper describing a development of the Sterling engine for producing refrigeration down to liquid nitrogen temperature, using a flexible diaphragm in place of the conventional displacer piston.

There is great interest in cryogenics in the USSR, with a number of institutes each of which is interested in one branch of the subject. We visited two of these. The first was a "polytechnic" specializing in the training of cryogenic engineers which graduates about 130 trained specialists each year. The second was the Krzhizhanovsky Energy Institute which is building prototype superconducting transmission lines.

What were my impressions of Soviet engineering? Very mixed. Some equipment is so old in design and constructional methods that it looks as though it had been recovered from the local scrap-yard: nevertheless good results seem to be produced. Quality of building construction, plumbing, electrical installation and safety precautions are often poor. However, there is another side to the picture, as we discovered during a visit to the Economic Achievements Exhibition, which occupies a large site just outside Moscow, and is reached by a short ride on the "Metro", with its marble stations lit by glass chandeliers. Surely nothing like this exhibition exists anywhere else in the world. The site is covered with large classical and modern pavilions interspersed with fountains and gardens. Each pavilion deals with some aspect of science, technology or agriculture, ranging from opencast mining and car production to microbiology and literature. The equipment for geological prospecting and well-drilling, and the optical devices for surveying and metrology, all of which appeared to be of Russian design, were superb.

Bearing in mind the difficulties inherent in arranging so large a conference, the Russian organizers did an excellent job.

SHIP AHoy !

Bill Simms retired on Tuesday 30 September having worked at the Rutherford Laboratory for over 10 years. At his presentation Bob Carr, head of the Mechanical Engineering Group, stressed the respect and admiration Bill received from his many friends and colleagues. Much of this respect came from the conscientious and cheerful way Bill carried out his many duties.

Bill was born and went to school in Reigate in Surrey. On leaving school he became an apprentice motor mechanic but soon got the lust to travel and became driver/chauffeur on a series of large estates. His driving duties took him in comfort to many areas of Britain.

A few calculations give an indication of the tasks undertaken by Bill in the 9 years he worked in the Nimrod Gas Supply Service.

- (i) He dispensed and transported to users over a million gallons of liquid nitrogen.
- (ii) He transported to within the Nimrod Experimental Halls, gas cylinders weighing a little over 1½ thousand tons.
- (iii) He safely transported 1¼ million litres of liquid hydrogen - an excellent safety record.

On receiving the handsome barometer, with which he was presented, Bill thanked his many colleagues not only for his retirement gift but for their help and friendship over his happy years at Rutherford Laboratory.

Bill is the proud owner of a graduate class sailing dinghy and in his retirement he intends to extend his interest in sailing. He is also looking forward to pursuing several other interests now that time allows. Good luck to you in your retirement Bill, you deserve to be able to 'put your feet up for a bit'.

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TRAFFIC DIVERSIONS The Romney Gate will be reopened, the Library Gate will close and traffic arrangements will revert to normal with effect from Monday 13 October '75

PHYSICS IN INDUSTRY The First International Conference on 'Physics in Industry' is to be held in Dublin from 9 - 13 March 1976. Deadline for papers - 30 November. Further details from Training Section, R20.

CHRISTIAN FELLOWSHIP On Friday 17 October, Ray Powell of Wages Section will lead a meeting on the 'Pre-Coming Glory of Christ'. This is the second in a series and will include Christ's unity with God and His existence before coming to this world. The study will take the form of a discussion and all are welcome to attend at 12.30, R12 Conference Room.

The third in the series of the 'Glory of Christ' will revolve around His life and work in this world ending with His seeming defeat upon the Cross and His glorious resurrection. Dennis Williams of Accommodation Section will be leading this study which commences at 12.30 on Friday 24 October in the R12 Conference Room. All welcome.