

calendar

This is a partial calendar comprising only notices received since last month. A complete calendar is published every third month. Readers are referred to the last one, published in July, if they wish a comprehensive listing of notices. The October issue will contain the next complete calendar.

Information in the calendar is compiled from a file maintained in the PHYSICS TODAY office. Readers are invited to write or telephone for general calendar information beyond what we print. For complete information concerning an entry, readers are advised to consult the contact and the original PHYSICS TODAY reference.

Abbreviations:

AAPT—American Association of Physics Teachers

AAS—American Astronomical Society

ACA—American Crystallographic Assoc.

APS—American Physical Society

ASA—Acoustical Society of America

OSA—Optical Society of America

S OF R—Society of Rheology

AEC—US Atomic Energy Commission

AIAA—American Institute of Aeronautics and Astronautics

ANS—American Nuclear Society

AVS—American Vacuum Society

IAEA—International Atomic Energy Agency

IEEE—Institute of Electrical and Electronics Engineers

IOP—The Institute of Physics (formerly IPPS)

IUPAP—International Union of Pure and Applied Physics

NBS—National Bureau of Standards

ORNL—Oak Ridge National Laboratory

Coding:

date subject ☐ HOST ☐ Location (Contact) [submission deadline] *Physics Today* ref.
• new listing ♦ new information

SEPTEMBER 1971

- 6-18 • **Issues in Contemporary Physics and Philosophy of Science and Their Relevance to our Society** ☐ NATIONAL ENDOWMENT OF HUMANITIES, INSTITUTE FOR THE ARTS AND HUMANISTIC STUDIES, COLLEGES OF SCIENCE AND LIBERAL ARTS AT PENNSYLVANIA STATE UNIV. ☐ University Park, Pa. (Continuing Education Conference Center, The Pennsylvania State Univ., University Park, Pa. 16802) 9/71

- 7-10 • **Two-Body Force in Finite Nuclei** ☐ CYCLOTRON LABORATORY, MICHIGAN STATE UNIVERSITY ☐ Gull Lake, Michigan (Cyclotron Laboratory, Michigan State Univ., East Lansing, Michigan 48823) 9/71

- 13-17 • **Vacuum Engineering Applications to Semiconductors** ☐ FRENCH SOCIETY OF VACUUM ENGINEERS AND TECHNICIANS ☐ Paris, France (French Society of Vacuum Engineers and Technicians, 19, rue du Renard, 75-Paris-IV, France) 9/71

- 17-19 • **Physics from School through**

Higher Education ☐ IOP ☐ Cardiff, UK (Meetings Officer, IOP, 47 Belgrave Square, London SW1, UK) 9/71

- 20-24 • **Structural Mechanics in Reactor Technology** ☐ GERMAN ORGANIZATION FOR MATERIALS TESTING, COMMISSION OF THE EUROPEAN COMMUNITIES ☐ Berlin, Germany (T. Jaeger, German Society for Materials Testing, Unter den Eichen 87, 1 Berlin (West) 45, Germany) 9/71

- 21-24 • **Antennas and Propagation** ☐ IEEE, US NATIONAL COUNCIL, INTERNATIONAL SCIENTIFIC RADIO UNION ☐ Los Angeles, Calif. (E. MacDonald, IEEE, 335 E. 47th St, New York, N. Y. 10017) 9/71

OCTOBER 1971

- 1, 2 • **Plasma Physics: Fusion Power, Arcs and the Ionosphere** ☐ N. Y. STATE SECTION APS ☐ Geneseo, N. Y. (D. Meisel, SUNY College at Geneseo, Geneseo, N. Y. 14454) 9/71

- 15, 16 • **Nuclear Physics** ☐ NEW ENGLAND SECTION APS ☐ New Haven, Conn. (R. Beringer, Dept. of



New Books from North-Holland

The Electron Band Theory of Solids

By G. C. Fletcher

Monash University
Clayton, Australia

Summarizes the basic theory of electrons in ideal, simple solids in a manner intelligible to experimentalists, while at the same time indicating the mathematical problems to theoretical physicists commencing research in the field. No specific knowledge of solid state physics or sophisticated mathematics is assumed at the beginning, and the material is presented in such a way that a basic understanding of band theory should have been achieved before more difficult concepts are introduced.

275 pages May 1971 \$17.00

Modern Aspects of Ligand Field Theory

By C. K. Jørgensen

Professor of Physical Chemistry
University of Geneva

Deals with the partly filled shell of transition group complexes which has to be orthogonal on the filled orbitals of the ligands. The angular overlap model is shown to be far more successful than the electrostatic model; inner shells and penultimate orbitals are studied by photo-electron and x-ray spectroscopy; and the art of applying group theory in a physically significant way is elaborated.

546 pages April 1971 \$32.00

Distributed in the United States and Canada by

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52 Vanderbilt Avenue
New York, N.Y. 10017



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UNIVERSITY OF EDINBURGH

Additional Chair of Physics

Applications are invited for a newly established Chair of Physics with tenure from 1st January 1972, or as soon thereafter as possible.

As from 1st August 1971 the presently independent Departments of Natural Philosophy and Mathematical Physics will be amalgamated in a single Department of Physics. Established Chairs of Natural Philosophy and Mathematical Physics and two established Chairs of Physics already exist in these Departments, and a Personal Chair of Physics is currently in tenure. The total teaching staff of the two Departments is 44.

Present research interests include high-energy particle physics (theory and experiment), low-energy nuclear physics, electron and atomic physics, quantum optics, solid-state physics, biophysics and boundary-layer fluid dynamics (all predominantly experimental).

The first occupant of the newly established Chair will be a theoretical physicist, in some branch other than high-energy particle physics. Applicants should therefore be theorists who would be able to contribute to the effectiveness of the experimental research of the unified Department in the other branches of physics as set out above.

The salary will be not less than £5,150 per annum, with superannuation under the Federated Superannuation System for Universities.

Particulars of appointment may be obtained from the Secretary to the University, Old College, South Bridge, with whom applications (12 copies), giving the names of three referees, should be lodged not later than 15th October. An overseas candidate need submit only one copy of his application. Please quote reference 71/4

FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS ROME—ITALY

has an opening for an **ENVIRONMENTAL PHYSICIST** required to work as a member of an interdisciplinary team under the leadership of Mr. L. Morris, in the United Nations Development Programme Special Fund Project "Research and Training in Environmental Control" at the Volcani Institute for Agricultural Research, Beit Degan near Tel Aviv, Israel.

OBJECTIVES of the project are the determination and provision of optimal environments for greenhouse crops using modern techniques for plant response, energy and water balances and control of environment.

DUTIES: The successful applicant will play a leading part in the selection, organization and use of apparatus and equipment for the adequate measurement of light and radiation, air temperature and humidity, CO₂ concentration, air movement, plant canopy temperature, etc. and the data handling equipment and analysis of the observations.

EXPERIENCE: The applicant must have at least 7 years experience and hold an appropriate degree.

DURATION: The appointment will in the first place be for 12 months with the possibility of future prolongation, and should start as soon as possible. **SALARY** plus **ALLOWANCES** commensurate with the responsibilities of the post and the background and experience of the candidate.

APPLY to: AFPR, Personnel Division, FAO of the United Nations, Via delle Terme di Caracalla, 00100 Rome, Italy. **QUOTING:** AGP/PI/UN/SF-483. Formal application forms will be sent to suitably qualified candidates.

EXPERIMENTAL PHYSICISTS

The Institute for Astronomy of the University of Hawaii has an immediate opening on its research staff for two experimental physicists at the postdoctoral level. Applicants should have a strong background in areas of relevance to observational astronomy (such as infrared physics, experimental atomic spectroscopy, optics) as well as an interest in applying their training to problems in astronomy. Successful applicants will participate in research on the solar atmosphere at the Mees Solar Laboratory, Haleakala, on the Island of Maui or in infrared astronomy at the University's Mauna Kea Observatory on the Island of Hawaii. Address applications to: **Dr. J. T. Jefferies, Director, Institute for Astronomy, 2840 Kolowalu Street, Honolulu, Hawaii 96822.**

(An Equal Opportunity Employer)

INDIANA UNIVERSITY CYCLOTRON PROJECT STAFF OPENINGS

Physicist-Programmer. A position is available for a qualified physicist with a good background in assembly-language programming. The job entails development of real-time interactive programs for an accelerator control computer and for a nuclear data acquisition and reduction computer facility. Familiarity with accelerator control and/or nuclear data acquisition is desirable.

Electronic Engineer. An opening exists for an electronic engineer with extensive training and experience in designing and implementing digital electronics. The project is heavily involved in interface development for several computers used in accelerator control and nuclear data acquisition. Familiarity with fast nuclear electronics and the NIM and CAMAC construction standards is desirable.

Résumés and inquiries should be directed to: Dr. D. W. Miller, Physics Department, Indiana University, Bloomington, Indiana 47401.

NUCLEAR PHYSICIST

Industry leader has attractive opening for a PHD with five year's experience in low energy nuclear physics research to manage a group of scientists and engineers in research and development of nuclear instrumentation. \$21-23,000 base plus attractive fringe package. Fee and relocation paid. Contact **Ronald M. Canter, Roddy & Associates, Inc., 2001 Kirby Suite 400, Houston, Texas 77019—Phone 713-526-8261.**

FREE LANCE TRANSLATORS—Professional scientists with good knowledge of Russian and competence in all aspects of earth, atmosphere and ocean physics, geodesy, optics, photography, spectroscopy, microscopy, fluid flow and heat transfer, contact **Scripta Publishing Corp., 1511 K Street, N.W., Washington, D.C. 20005.**

CHAIR OF PHYSICS

The Council of the University invites applications for the above Chair. This will be the third Chair established in the Department and the Council seeks to appoint a scholar whose special interests lie in either atmospheric or optical physics. The salary for a Professor is within the range of \$NZ9783 to \$NZ12,500 per annum. The commencing or subsequent salary of the appointee may be increased as a result of the review which the University makes at the beginning of each year. Applications close on 30 September 1971 with the undersigned from whom further particulars can be obtained. **Apply Registrar, University of Canterbury, Christchurch, New Zealand.**

AUSTRALIA—THE UNIVERSITY OF SYDNEY LECTURESHIP IN PHYSICS

Applications invited for appointment in Department of Theoretical Physics. Current research fields in Department include low energy nuclear physics, plasma physics and particle theory.

Information available from **Registrar, The University of Sydney, N.S.W. 2006, Australia.** Applications close 1st October 1971.

The Institute for Fluid Dynamics and Applied Mathematics of the University of Maryland announces two new positions for experimental physical scientists at a senior professional level. Applicants must offer an outstanding record of independent research achievement and well-defined plans for a program in the general area of atmospheric sciences which will extend and complement existing programs in the physics of fluids, plasmas, solar-terrestrial relationships, atomic and molecular collisions, spectroscopy and meteorology. Teaching opportunities are available in the Institute and other departments. Additional information will be mailed on request.

Applicants should send a curriculum vitae and a summary of professional interests and plans to **Langdon T. Crane, Director, Institute for Fluid Dynamics and Applied Mathematics, University of Maryland, College Park, Maryland 20742.** The University of Maryland is an equal opportunity employer.

Junior Faculty Position in Materials Science

Private eastern University, research in electron microscopy, mechanical properties, and the relation between microstructure and strength of solid materials. Also a postdoctoral position in the theory of strength and structure. Submit resume to Box 971, **Physics Today, 335 E. 45 St., N.Y., N.Y. 10017.**

For Sale

GRAVITOMETER

A new invention for measuring "g" the acceleration due to gravity (patented). Instrument available for sale. Particulars and price may be obtained from **S. C. Somashekar, Shekar Instrument Co., 174 Atlantic Ave., Brooklyn, N.Y. 1120—625-5253.**

Perkin Elmer Model 180 I.R. Spectrophotometer

New model 180 fully automatic, double beam spectrophotometer with electrical null ratio recording (strip chart and X-Y). Frequency range 4000 to 180 cm⁻¹ (with air dryer) \$27,000 (\$33,000 original price). Write: **High Performance Technology, Inc., Box 2047, Midland, Michigan 48640 or phone (517) 631-1771.**

NEW LISTING OF SHORT COURSES AND SCHOOLS

13-17 SEPTEMBER 1971

Air-Pollution Engineering Workshop
□ WASHINGTON UNIV. □ St. Louis, Mo.
(J. Movshin, Washington Univ., Box
1048, St. Louis, Mo. 63130)

8-12 NOVEMBER 1971

Electron- and Ion-Beams in Microfab-
rication of Integrated Circuitry □
FAIRLEIGH DICKINSON UNIV. COLLEGE OF
SCIENCE AND ENGINEERING □ Teaneck,
N. J. (R. Bakish, College of Science
and Engineering, Fairleigh Dickinson
Univ., Teaneck, N. J. 07666)

19-30 JUNE 1972

Remote Sensing of the Troposphere □
UNIV. OF COLORADO □ Boulder, Colo.
(S. W. Maley, Engineering Center,
Univ. of Colo., Boulder, Colo. 80302)

OCTOBER 1971

Physics, Yale Univ., New Haven,
Conn. 06520) [9/30/71] 9/71

15, 16 • □ AAPT ILLINOIS SECTION □
Galesburg, Ill. (W. Green, Dept.
of Physics, Knox College, Gales-
burg, Ill.) 9/71

25-27 • Implementing Nuclear Safe-
guards □ KANSAS STATE UNIV. □
Manhattan, Kansas (R. B. Leach-
man, Diversion Safeguard Pro-
gram, Cardwell Hall, Kansas
State Univ., Manhattan, Kansas
66502) [9/24/71] 9/71

29, 30 • Eastern Theoretical Physics Con-
ference □ GENERAL ELECTRIC RE-
SEARCH AND DEVELOPMENT CEN-
TER □ Schenectady, N. Y. (J. B.
Comly, General Electric Research
and Development Center, P. O.
Box 8, Schenectady, N. Y.) 9/71

NOVEMBER 1971

6 • □ NORTHERN AND SOUTHERN
CALIFORNIA SECTIONS OF AAPT □
Oakland, Calif. (E. Schwartz,
Stanislaus State College, Tur-
lock, Calif. 95380) 9/71

20 • □ SOCIETY OF PHYSICS STUDENTS
REGIONAL MEETING (ZONE 12) □
Irvine, Calif. (W. H. Parker,
Dept. of Physics, Univ. of Calif.,
Irvine, Calif. 92664) 9/71

MARCH 1972

1-3 • Scintillation and Semiconductor
Counters □ IEEE □ Washington,
D. C. (Meetings Information,
IEEE, 345 E. 47th St, New
York, N. Y. 10017) 9/71

20-23 • □ IEEE □ New York (Meetings
Information, 345 E. 47th St,
New York, N. Y. 10017) 9/71

20-24 • Hydrogen in Metals □ GERMAN
BUNSEN SOCIETY, NUCLEAR RE-
SEARCH CENTER, JÜLICH □ Jülich,
Germany (J. Völki, Institut für

Festkörperforschung der KFA,
Postfach 365, D-517 Jülich, Ger-
many) 9/71

APRIL 1972

6-8 • □ LOW-TEMPERATURE DIVISION OF
EUROPEAN PHYSICAL SOCIETY □
Freudenstadt, Germany (W.
Klose, D 66 Saarbrücken, Uni-
versität, Germany) 9/71

8-12 • □ AAS □ Seattle, Wash. (L.
Frederick, Leander McCormick
Observatory, P. O. Box 3818,
University Station, Charlottes-
ville, Va. 22903) 9/71

10-12 • Acoustical Holography □ IEEE,
QUANTUM INSTITUTE OF THE UNIV.
OF CALIF. □ Santa Barbara, Calif.
(G. Wade, Dept. of Electrical En-
gineering, Univ. of Calif., Santa
Barbara, Calif. 93106) [11/1/71]
9/71

17-19 • Nuclear Physics □ UNIV. OF BIR-
MINGHAM □ Birmingham, UK
(Administrative Officer, Dept. of
Physics, Univ. of Birmingham,
P. O. B. 363, Birmingham B15
2T1, UK) 9/71

17-21 ♦ Inner-Shell Ionization Phenom-
ena □ ORGANIZING COMMITTEE
INTERNATIONAL CONFERENCE ON
INNER-SHELL IONIZATION PHE-
NOMENA, AEC, IUPAP, GEORGIA
TECH, EMORY UNIV., GEORGIA
STATE COLLEGE, □ Atlanta,
Georgia (R. W. Fink, School of
Chemistry, Georgia Institute of
Technology, Atlanta, Georgia
30332) [1/15/72] 9/71 (Note
corrected dates.)

27, 28 • Low-Energy Electron Diffraction
□ ELECTRON AND ATOMIC PHYSICS
DIVISION OF APS □ Washington,
D. C. (R. Kaplan, Code 6479,
Naval Research Laboratory,
Washington, D. C. 20390)
[2/4/72] 9/71

28, 29 • Experimental Meson Spectros-
copy □ UNIV. OF PENNSYLVANIA
□ Philadelphia, Pa. (J. Halpern,
Dept. of Physics, Univ. of Pa.,
Philadelphia, Pa. 19104) 9/71

MAY 1972

1-3 • Applied Superconductivity □
IEEE, AIP, DEPARTMENT OF NAVY,
NSF, NASA □ Cambridge, Mass.
(Z. T. Stekly, Magnetic Corp of
America, 67 Roger St, Cam-
bridge, Mass.) [1/3/72] 9/71

15-19 • Thin Films □ INTERNATIONAL
THIN FILM COMMITTEE, ITALIAN
PHYSICAL SOCIETY, ITALIAN ELEC-
TRICAL AND ELECTRONIC ASSOCIA-
TION □ Venice, Italy (N. Min-
naja, Sezione Progetti e Studi,
Honeywell Information Systems
Italia, I-20010 Pregnana Milan-
ese, Italy) [12/71] 9/71

22-25 • Microwaves □ IEEE □ Chicago,
Ill. (Meetings Information, 345 E.
47th St, New York, N. Y. 10017)
9/71 □



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Partial calendar—see note at opening.