

# calendar

## NOVEMBER 1983

- 1-3 **Copper '83 Conf** London 7/83
- 1-3 **SPS Programs at AVS Mtg** Boston 9/83
- 1-4 **AVS Ann Mtg** Boston 11/82
- 1-4 **Workshop on Moisture Measurement and Control for Semiconductor Devices III** Gaithersburg, MD 9/83
- 3-5 **APS Southeastern Sec Mtg** Columbia, SC 11/82
- 4 **Interzone SPS Mtg (Zones 4,5,6) with SES-APS** Columbia, SC 9/83
- 7-9 → **Polymers for Electronic Applications** New Paltz, NY (A. V. Patsis, Dir., Mat. Res. Lab., State Univ. of NY, New Paltz, NY 12561, 914 257-2175)
- 7-10 **Soc for Exp Stress Analysis Fall Mtg: Recent Advances in Experimental Characterization of Composites** Salt Lake City, UT 9/83
- 7-11 **APS Plasma Physics Div** Los Angeles 11/82
- 7-11 **ASA 106th Mtg** San Diego 11/82
- 7-11 **3rd Int Conf on Heat Treatment of Materials** Shanghai, China 7/83
- 7-11 **Workshop on Problems of Collapse and Numerical Relativity [CNRS]** Toulouse, France 7/83
- 7-11 **Short Course on Semiconductor Materials and Process Technologies** Palo Alto, CA 9/83

- 8-11 **29th Ann Conf on Magnetism and Magnetic Materials** Pittsburgh, PA 5/83
- 8-11 **Short Course on Applications of Discrete and Continuous Fourier Analysis** Arlington, VA 9/83
- 10-11 **ASSP Spectrum Estimation Workshop II** Tampa, FL 9/83
- 13-18 **AAPM Gen Mtg** Chicago 3/83
- 14-16 **15th Ann Symp on Optical Materials for High Power Lasers** Boulder, CO 5/83
- 14-17 **Ann Mtg of the Materials Research Soc** Boston 5/83
- 14-17 **23rd Fall Symp of SPSE: Microimaging Tech** Crystal City, VA 5/83
- 14-17 **ICALEO Laser Conf '83** Los Angeles 7/83
- 14-18 **3rd Int Symp on the Production and Neutralization of Negative Ions** Brookhaven Nat. Lab. 5/83
- 14-18 **Fossil Based Synfuels Symp** Atlanta, GA 7/83
- 14-18 **Short Course on Laser Safety** Washington, DC 9/83
- 14-18 **Short Course on Radioactive Waste Management** Anaheim, CA 9/83
- 15-25 **Course on Biol Effects and Dosimetry of Non-Ionizing Radiation: Static and ELF Electromagnetic Fields** Erice, Italy 7/83
- 20-22 **APS Fluid Dynamics Div** Houston 11/82
- 20-23 **APS Gen Mtg** San Francisco 11/82

- 21-23 **3rd Conf on Fractals: Fractals in the Physical Sciences** College Park, MD 7/83
- 22-24 **3rd Int Conf on Quantitative Surface Analysis** Middlesex, UK 5/83
- 27-2 **6th Int Conf on Non-Destructive Evaluation** Zürich, Switz. 7/83
- 28-2 **Short Course on Optical Interference Coating Technology** Los Angeles 9/83

## DECEMBER 1983

- 1-2 → **Int Cont on Collective Phenomena** Stockholm (Comm. of Concerned Scientists, 330 7th Ave., New York, NY 10001; 212-695-2560)
- 5-9 **10th Symp on Fusion Eng** Philadelphia 11/82
- 5-10 **2nd Int Workshop on the Phys of Semiconductor Devices** Delhi, India 7/83
- 8 → **Power Semiconductor Devices Workshop [IEEE, NBS]** Gaithersburg, MD (F. Oettinger, B-344 Tech. Bldg., NBS, Washington, DC 20234; 301-921-3541)
- 12-14 → **Winter Simulation Conf [ACM, IEEE, IEE, NBS, ORSA, SCSIMS]** Arlington, VA (B. Schmeiser, Sch. of Industrial Eng., Purdue Univ., W. Lafayette, IN 47907; 317 494-5422)
- 12-16 **6th Int Conf on Lasers & Applications** San Francisco 7/83
- 12-17 **8th Int Conf on Infrared and Millimeter Waves** Miami Beach, FL 1/83
- 14-16 **20th Ann Solid State Phys Conf** University of Oxford, UK 9/83

**Please note:** Complete information is only given in new (→) or revised (●) listings. All other entries end with the date of the PHYSICS TODAY issue containing the following information: date title [sponsor] location (contact) [abstract deadline]

This calendar appears in alternate (odd-numbered) months. Notices should be sent to: Calendar, PHYSICS TODAY, 335 East 45th Street, New York, NY 10017 at least three months in advance.

**AAAS** American Association for the Advancement of Science  
**AAPM** American Association of Physicists in Medicine  
**AAPT** American Association of Physics Teachers  
**AAS** American Astronomical Society  
**ACA** American Crystallographic Association  
**AGU** American Geophysical Union  
**ANS** American Nuclear Society  
**APS** American Physical Society  
**ASA** Acoustical Society of America  
**AVS** American Vacuum Society  
**BNL** Brookhaven National Laboratory  
**CNRS** Centre National de la Recherche Scientifique  
**DOE** Department of Energy  
**DPG** Deutsche Physikalische Gesellschaft  
**IAEA** International Atomic Energy Agency

**IEEE** Institute of Electrical and Electronics Engineers  
**IOP** The Institute of Physics (London)  
**IUPAC** International Union of Pure and Applied Chemistry  
**IUPAP** International Union of Pure and Applied Physics  
**LBL** Lawrence Berkeley Laboratory  
**LLNL** Lawrence Livermore National Laboratory  
**NAS** National Academy of Sciences  
**NBS** Bureau of Standards  
**NRC** Nuclear Regulatory Commission  
**NRL** Naval Research Laboratory  
**NSF** National Science Foundation  
**ORNL** Oak Ridge National Laboratory  
**OSA** Optical Society of America  
**S of R** Society of Rheology  
**SPS** Society of Physics Students

## JANUARY 1984

- 2-6 **1984 Winter Conf on Plasma Spectrochemistry** San Diego, CA 5/83
- 3-5 → **Dynamics Days—La Jolla: Workshop on Nonlinear Dynamics and Chaotic Behavior** La Jolla, CA (R. Helleman, La Jolla Inst., POB 1434, La Jolla, CA 92038; 619-454-3581)
- 4-7 → **Protostars and Planets II** Tucson, AZ (D. Black, Ames, MS 245-3, Moffett Field, CA 94035; 215-965-5495)
- 4-10 → **Winter Course on Imaging and Microanalysis with High Spatial Resolution [NSF]** Tempe, AZ (O. L. Krivanek, Center for Solid State Sci., AZ State Univ., Tempe, AZ 85287; 602-965-7512)



- 8-11 163rd Ann Mtg of AAS Las Vegas, NV 5/83
- 9-13 Gordon Res Conf on Orientational Disorder in Crystals Oxford, CA 9/83
- 9-20 Optical Sci & Eng Short Course Tucson, AZ 9/83
- 10-13 → Conf on Atomic-Scale Structure and Properties of Interfaces [NSF] Phoenix, AZ (O. L. Krivanek, Center for Solid-State Sci., AZ State Univ., Tempe, AZ 85287; 602-965-7512)
- 16-25 → Int Workshop on Hyperfine Interactions Kanpur, India (G. N. Rao, Dept. of Phys., Indian Inst. of Tech., Kanpur 208 016 India)
- 23-25 Top Mtg on Optical Fiber Communication New Orleans, LA 5/83
- 24-26 1984 Ann Reliability and Maintainability Symp San Francisco 5/83
- 28-29 Aspects of Medical Phys for Phys Teachers San Antonio, TX 7/83
- 30-2 Joint APS/AAPT Mtg San Antonio, TX 5/83
- 31-2 11th Ann Conf on Phys and Chem of Semiconductor Interfaces Pinehurst, NC 7/83

## FEBRUARY 1984

- 6-8 → Consensus Development Conf on Use of Diagnostic Ultra-Sound Imaging in Pregnancy [NIH] Bethesda, MD (M. P. Richardson, NICHD, Bldg. 31, Rm. 2A32, 9000 Rockville Pike, Bethesda, MD 20205; 301-496-5133)
- 7-10 Australia/New Zealand Condensed Matter Phys Mtg Pakatoa Island, Auckland, New Zealand 9/83
- 12-15 Inter-Soc Color Council Williamsburg Conf on Color and Imaging Williamsburg, VA 9/83
- 13-15 → Int Sem on Energy Conservation in Industry Düsseldorf, FRG (E. Piski, VDI-Gesellschaft Energietechnik, Postfach 11 39, D-4000 Düsseldorf 1)
- 20-1 23rd Int Universitätswochen für Kernphysik: Stochastic Methods and Computer Techniques in Quantum Dynamics Schladming, Austria 9/83
- 27-29 Spring Mtg of the Materials Res Soc Albuquerque, NM 9/83
- 27-29 → Tenth Austin Symp on Molecular Structure Austin (J. E. Boggs, Dept. of Chem., Univ. of TX, Austin, TX 78712; 512-471-7525)
- 29-2 Sem on the Application of Surface Analysis Methods to the Solution of Practical Problems Boca Raton, FL 9/83

## MARCH 1984

- 1-3 → Int Symp on the Impact of Computers on the Quantum Theory of Matter Palm Coast, FL (S. B. Trickey, Williamson Hall, Univ. of FL, Gainesville, FL 32611)

- 5-7 Top Mtg on Laser Techniques in the Extreme Ultraviolet Boulder, CO 5/83
- 5-8 4th Top Workshop on Proton-Antiproton Collider Phys Berne, Switz. 9/83
- 5-10 → Int Symp on Atomic, Molecular, and Solid-State Theory, Many-Body Phenomena, and Computation Methods in Honor of Prof Masao Kotani Palm Coast, FL (S. B. Trickey, Williamson Hall, Univ. of FL, Gainesville, FL 32611)
- 7-9 → Int Sem on Imaging Applications of Nuclear Magnetic Resonance in Medicine and Other Areas Boca Raton, FL (Dean, Div. of Cont. Ed., FL Atlantic Univ., Boca Raton, FL 33431)
- 12-15 → Int Symp on Quantum Biology and Quantum Pharmacology Palm Coast, FL (S. B. Trickey, Williamson Hall, Univ. of FL, Gainesville, FL 32611)
- 12-16 5th Nordic Mtg on Nuclear Phys Jyväskylä, Finland 9/83
- 14-16 → 17th Ann Simulation Symp Tampa, FL (A. Kran, IBM Corp., E. Fishkill Facility, B/300-40E, Hopewell Junction, NY 12533; 914-894-7142)
- 19-21 → IEEE 1984 Int Conf on Acoustics, Speech and Signal Processing San Diego, CA (G. H. Hostetter, Elec. Eng., Univ. of CA-Irvine, Irvine, CA 92717; 714-833-5467)
- 21-28 4th Int Symp on Heating in Toroidal Plasmas Rome 5/83
- 22-24 Conf on Defects in Amorphous Materials Detroit, MI 5/83
- 26-30 APS Gen Mtg Detroit, MI 5/83
- 29-31 → 1984 Univ of California Conf on Statistical Mechanics Davis, CA (C. Garrod, Dept. of Phys., Univ. of CA, Davis, CA 95616; 916-752-1789) [12/31/83]

## APRIL 1984

- 1-4 Vacuum '84: Technological Aspects of Surface Treatment and Analysis University of York, UK 5/83
- 2-6 5th Int Conf on Nuclear Methods in Environmental and Energy Res Mayaguez, Puerto Rico 5/83
- 6-8 AVS Thin Film Div Top Symp on Sputtering San Diego, CA 7/83
- 9-11 → Top Mtg on High Temperature Alloys: Theory and Design Bethesda, MD (C. J. McHargue, Metals and Ceramics Div., Oak Ridge Nat. Lab., POB X, Oak Ridge, TN 37830)
- 9-12 3rd Int Conf on Mechanical Properties of Materials at High Rates of Strain Oxford, UK 5/83
- 9-12 → Symp on Resonances in Electron-Molecule Scattering, van der Waals Complexes, and Reactive Chem Dynamics [Amer. Chem. Soc.] St. Louis, MO (D. G. Truhler, Dept. of Chem., Univ. of MN, Minneapolis, MN 55455; 612-373-5018) [11/18/83]
- 9-13 → 4th Int Symp on the Properties and Applications of Metal Hydrides Eilat, Israel (D. Shaltiel, Ra-

cah Inst. of Phys., Hebrew Univ., Jerusalem 91904, Israel)

- 10-12 Conf on Lasers and Electro-optics Anaheim, CA 5/83
- 11-13 Conf on Nuclear Structure Phys Univ. of Bradford, UK 9/83
- 12-14 5th Workshop on Grand Unification Providence, RI 9/83
- 17-20 → OSA Spring Conf Monterey, CA
- 17-18 → Spring '84 Top Mtg on Science of Polishing [OSA] Monterey, CA (OSA, 1816 Jefferson Pl., NW, Washington, DC 20036; 202-223-8130) [1/6/84]
- 17-19 → Top Mtg on Optical Interference Coatings [OSA] Monterey, CA (OSA, 1816 Jefferson Pl. NW, Washington, DC 20036)
- 18-19 → Top Mtg on Gradient-Index Optical Imaging Systems [OSA] Monterey, CA (OSA, 1816 Jefferson Place, NW, Washington, DC 20036; 202-223-8130) [1/6/84]
- 18-20 → Workshop on Optical Fabrication and Testing [OSA] Monterey, CA (OSA, 1816 Jefferson Pl., NW, Washington, DC 20036) [1/6/84]
- 18-20 → Top Mtg on Optical Data Storage [OSA] Monterey, CA (OSA, 1816 Jefferson Pl. NW, Washington, DC 20036)
- 19-20 → 15th Ann Modeling and Simulation Conf Univ. of Pittsburgh (W. G. Vogt, 348 Benedum Eng. Hall, Univ. of Pittsburgh, Pittsburgh, PA 15261)
- 23-26 APS Spring Mtg Washington, DC 9/83
- 24-26 3rd Int Conf on III-V Semi-Insulating Mat Warm Springs, OR 9/83
- 24-26 IEEE 1984 Nat Symp on Electromagnetic Compatibility San Antonio, TX 9/83
- 24-26 → 7th Top Mtg on Integrated and Guided-Wave Optics [IEEE, OSA] Kissimmee, FL (OSA, 1816 Jefferson Pl., N W, Washington, DC 20036) [2/1/84]
- 29-2 86th Ann Mtg and Expos Amer Ceramic Soc Pittsburgh, PA 5/83
- 29-3 4th Int Symp on Gaseous Dielectrics Knoxville, TN 7/83

## MAY 1984

- 6-10 → 107th ASA Mtg Norfolk, VA (B. Goodfriend, ASA, 335 E. 45 St., New York, NY 10017)
- 6-20 Int School on Direct Methods of Solving Crystal Structures Erice, Italy 5/83
- 7-10 1984 IEEE Int Symp on Circuits and Systems Montreal 9/83
- 14-16 IEEE Int Conf on Plasma Sci. St. Louis, MO 3/83
- 21-23 → IEEE Custom Integrated Circuits Conf Rochester, NY (W. N. Grant, Sperry Computer Systems, Sperry Park, POB 43525 MS Y11B1, St. Paul, MN 55164; 612-456-4130) [12/30/83]
- 21-25 ACA Ann Spring Mtg Lexington, KY 5/83
- 24-29 AAAS Ann Mtg New York 5/83
- 28-30 APS Electron and Atomic Div Storrs, CT 5/83



## JUNE 1984

- 4-8 **Int Symp on Phase Transitions in the Very Early Universe** Bielefeld, FRG 9/83
- 5-7 → **Dynamics Days—Twente: Workshop on Nonlinear Dynamics and Chaotic Behavior** Enschede, The Netherlands (R. Helleman, Theoretical Phys. Group, Twente Univ. of Technology, POB 217, 7500 AE Enschede, The Netherlands)
- 10-13 **164th AAS Mtg** Baltimore, MD 5/83
- 10-14 **5th Int Congress on Experimental Mechanics** Montreal 9/83
- 11-15 **7th Int Conf on Spectral Line Shapes** Aussois, France 9/83
- 12-15 **Top Mtg on Ultrafast Phenomena** Monterey, CA 7/83
- 18-20 **1984 Physical Electronics Conf** Princeton, NJ 5/83
- 18-21 → **1984 Cong of Canadian Assoc of Physicists** Sherbrooke, Qué. (M. L. Jento, CAP, 151 Slater St., Ste 805, Ottawa, Ont. K1P 5H3 Canada)
- 19-22 **OSA/IEEE Conf on Lasers and Electro-Optics and 13th Int Quantum Electronics Conf** Anaheim, CA 5/83
- 25-29 → **AAPT Mtg** College Park, MD (AAPT, Graduate Phys. Bldg., SUNY, Stony Brook, NY 11794)

## JULY 1984

- 2-4 **2nd Int Symp on Applications of Laser Anemometry to Fluid Mechanics** Lisbon, Portugal 7/83
- 2-6 **1984 Nuclear EMP Mtg** Baltimore, MD 9/83
- 8-11 **4th Int Conf on Mechanics in Medicine and Biology** Buffalo, NY 9/83
- 9-13 **7th Eur Symp on Antiproton Interactions** Durham, UK 9/83
- 9-13 → **Int Conf on the Effects of Modes of Formation on the Structure of Glasses** Nashville, TN (M. W. Trautman, Dept. of Mech. and Materials Eng., Vanderbilt Univ., Nashville, TN 37235; 615-322-2413)
- 15-19 **5th World Hydrogen Energy Conf** Toronto 5/83
- 15-21 **Ann Mtg of AAPM** Chicago 9/83
- 22-28 **AAPM Summer School: Recent Developments in Digital Imaging** South Bend, IN 7/83
- 23-25 → **1984 Summer Computer Simulation Conf** [Soc. for Computer Simulation] Boston, MA (C. A. Pratt, Soc. for Computer Simulation, POB 2228, La Jolla, CA 92038; 619-459-3888) [11/15/83]
- 23-27 **4th Int Conf on Clustering Aspects of Nuclear Structure and Nuclear Reactions** Chester, UK 5/83
- 24-27 **8th IEEE Int Conf on Conduction and Breakdown in Dielectric Liquids** Pavia, Italy 7/83



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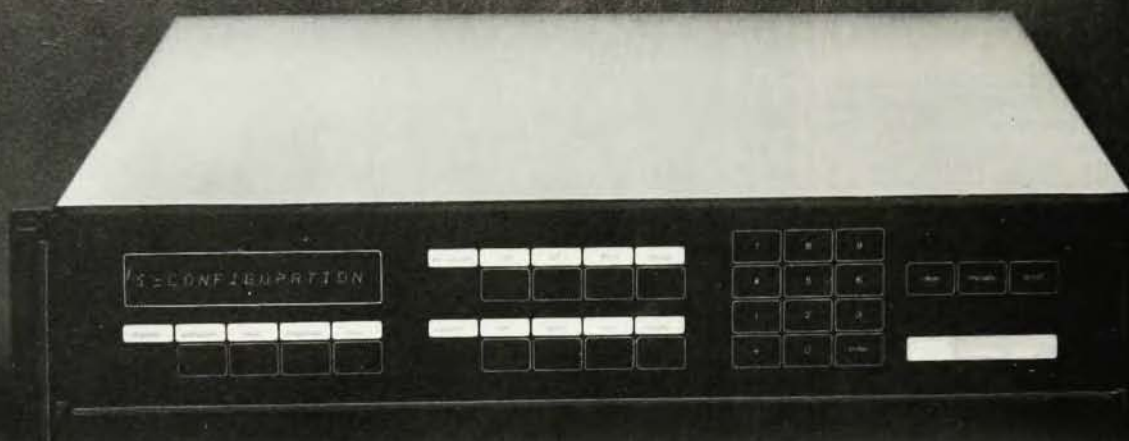


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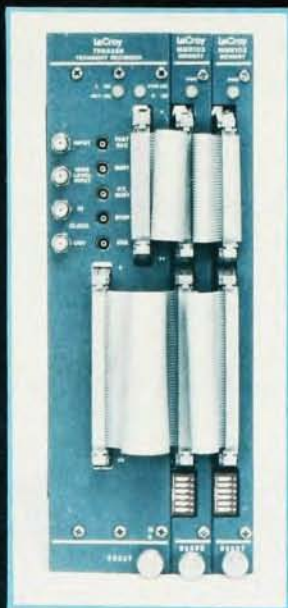
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# Physik Daten Physics Data 25-1

O. C. Allkofer, P. K. F. Grieder, Institut für Reine und Angewandte Kernphysik der Universität Kiel, Federal Republic of Germany and Physikalisches Institut der Universität Bern, Switzerland

## Cosmic Rays on Earth

A comprehensive collection of all relevant data on fluxes, intensities, energy spectra and other significant observables of all the common particles in the cosmic radiation.

Scheduled for publication November 1983

### From the preface

In 1912 Victor Franz Hess made the revolutionary discovery that ionizing radiation is incident from outer space. This discovery has given an enormous impetus to large areas of science, in particular to physics. For example, fields of research such as elementary particle physics were established. Other fields, such as astrophysics, geophysics and even biology were immensely enriched by this discovery.

It is now 100 years since Hess was born (1882). This is a good occasion to prepare a collection of cosmic ray data, a task that has long been overdue. In view of the enormous amount of material that is available we regard it useful to subdivide a comprehensive collection of cosmic ray data in accordance with the various fields of research. These can be presented under the following headings:

- COSMIC RAYS ON EARTH
- PRIMARY COSMIC RADIATION
- EXTENSIVE AIR SHOWERS AND ULTRA HIGH ENERGY PHYSICS
- SOLAR-TERRESTRIAL PHYSICS

In this volume the authors present a data collection that covers the first topic mentioned above, COSMIC RAYS ON EARTH. They have attempted to collect all relevant data on fluxes, intensities, energy spectra and other significant observables of all the common particles in the cosmic radiation. In those cases where no useful experimental data have been available, theoretical predictions were substituted. Even though air showers are an atmospheric phenomenon, no data are included on this subject in this volume. These data will be published in a separate volume.

The authors want to emphasize the fact that no attempt has been made to determine the reasons why in some cases individual measurements of the same component, acquired under apparently identical conditions, do not agree with each other. The aim of this book is simply to supply the interested reader with a comprehensive and unbiased set of data of cosmic rays in the atmosphere, at sea level and underground. For additional information and data, the reader is referred to the comprehensive bibliography on all topics treated in this volume that gives access to the original publications from which the data have been extracted.

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### AUGUST 1984

- 1-4 **Top Conf on Optical Effects in Amorphous Semiconductors** Salt Lake City, UT 7/83
- 2-13 **Advanced Study Inst on Techniques and Concepts of High Energy Phys** [NATO, DOE, NSF, Fermilab, Univ. of Rochester] St. Croix, US Virgin Islands (T. Ferbel, Dept. of Phys. and Astro., Univ. of Rochester, Rochester, NY 14627) [3/1/84]
- 6-10 **Int Conf on the Phys of Semiconductors** San Francisco 7/83
- 9-18 **Int Union of Crystallographers 13th Cong** Hamburg, FRG 7/83
- 13-16 **1st Int Conf on the Structure of Surfaces** Berkeley, CA (M. A. Van Hove, Dept. of Chem., Univ. of CA., Berkeley, CA 94720) [4/20/84]
- 13-17 **6th Int Conf on Thin Films** Stockholm 7/83
- 13-17 **Int Conf on Luminescence** Madison, WI 7/83
- 15-22 **17th Int Conf on Low Temperature Phys** Karlsruhe, FRG 9/83
- 20-24 **Conf on Precision Electromagnetic Measurements** Delft, The Netherlands 7/83
- 20-24 **5th Int Symp on Gas Flow and Chem Lasers** St. Catherine's College, Oxford, UK 7/83
- 20-24 **Int Conf on Defects in Insulating Crystals** Salt Lake City, UT 9/83
- 20-25 **Conf on Phys Education** Utrecht, The Netherlands 7/83
- 20-25 **Int Conf on X-Ray and Inner-Shell Processes in Atoms, Molecules and Solids** Karl-Marx-Universität Leipzig, DDR 9/83
- 26-29 **Int Top Mtg on Fuel Reprocessing and Waste Management** Jackson Hole, WY 9/83
- 27-29 **8th Int Colloquium on Extreme uv and x-ray Spectroscopy of Astrophysical & Laboratory Plasmas** Washington, DC 9/83
- 27-31 **Symp on Transport Processes in Membranes and Epithelia: Osmotic and Ionic Regulation** Liege, Belgium 9/83
- 27-31 **3rd Int Conf on Solid Films and Surfaces** Sydney, Australia (D. J. Miller, Sch. of Phys., Univ. of New South Wales, POB 1, Kensington, NSW 2033 Australia)
- 28-7 **Int School of Plasma Phys—Plasma Astrophysics** Varenna, Italy 7/83

### SEPTEMBER 1984

- 3-7 **5th Int Conf on Rapidly Quenched Metals** Würzburg, FRG 9/83
- 6-7 **2nd Int Conf on Optical Fiber Sensors** Stuttgart, FRG (UDE-Bereichsverein Württemberg, im Hause TWS, Lantenschlager str. 21, D-7000 Stuttgart 1) [4/15/84]
- 10-12 **Int Sem on ORC-Tech: New Working Fluids for Energy Eng**

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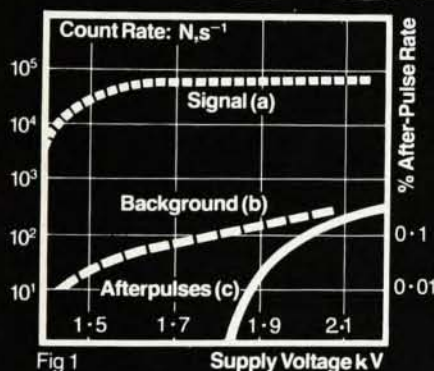


Fig 1

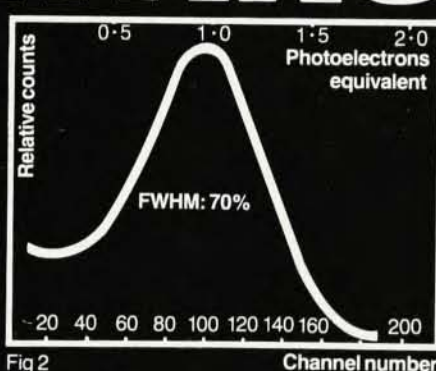


Fig 2

Fig 1 — Typical integral count rate characteristic: a) single photon source; b) background distribution; c) after-pulse rate in % per photoelectron.

Fig 2 — Single Electron Response

Fig 3 — THORN EMI Photon Counting Photomultipliers.

| Tube Type | Cathode Type | Photo-Sensitivity ( $\mu\text{A}/\text{lm}$ ) | Dark Count (counts per second at $20^\circ\text{C}$ ) | Single Electron Response (peak to valley) | After-Pulse Rate<br>(No. of pulses in a fixed time window above a fixed threshold, as %/input photoelectron) |                               |               |
|-----------|--------------|-----------------------------------------------|-------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------------------------------------------------------|-------------------------------|---------------|
|           |              |                                               |                                                       |                                           | Threshold (p.e.)                                                                                             | Time Window ( $\mu\text{s}$ ) | Rate (%/p.e.) |
| 9924      | SbRbCs       | 75                                            | 150                                                   | 2                                         | 2                                                                                                            | 0.3 to 2.3                    | 0.03          |
| 9798      | SbNaKCs      | 160                                           | 1000                                                  | 1.5                                       | 2                                                                                                            | 0.3 to 2.3                    | 0.1           |
| 9902      | SbRbCs       | 85                                            | 200                                                   | 2                                         | 2                                                                                                            | 0.3 to 2.3                    | 0.04          |
| 9883      | SbKCs        | 75                                            | 200                                                   | 2.5                                       | 2                                                                                                            | 0.3 to 2.3                    | 0.1           |
| 9863/100  | SbNaKCs      | 180                                           | 50                                                    | 1.2                                       | 0.5                                                                                                          | 0.075 to 0.125                | 0.1           |
| 9863/350  | SbNaKCs      | 180                                           | 300                                                   | 1.2                                       | 0.5                                                                                                          | 0.075 to 0.125                | 0.1           |

Fig 3



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17-21 **9th Eur Conf on Thermophysical Properties** Manchester, UK 7/83

17-21 **7th Int Conf on Textures of Materials** The Netherlands 9/83

21-24 **Int Mtg on Photophysics and Photochemistry above 6 eV** [Soc. de Chimie Physique] Bombannes, France (C. Troyanowsky, Soc. de Chimie Physique, 10 rue Vauquelin, F-75231 Paris Cedex 05) [1/31/84]

24-28 **11th Int Symp on Discharges and Electrical Insulation in Vacuum** Berlin, GDR (E. Hantzsch, Akademie der Wissenschaften der DDR, Zentralinstitut für Elektronenphysik, DDR 1086 Berlin, PSF 1250, GDR) [1/15/84]

25-28 **Energy Pulse Modification of Semiconductors and Related Materials** Dresden, GDR (H. U. Jäger, Zentralinstitut für Kernforschung, Rossendorf, 8051 Dresden, Postfach 19, GDR) [2/1/82]

## OCTOBER 1984

8-12 **108th ASA Mtg** Minneapolis, MN 7/83

8-13 **9th Int Congress on Rheology** Acapulco, Mex. 7/83

9-12 **37th Gaseous Electronics Conf** Boulder, CO 7/83

15-17 **Workshop on Nuclear Phys with Stored Cooled Beams** Bloomington, IN (C. Foster, IN Univ., Cyclotron Facility, 2401 Milo B. Samson La., Bloomington, IN 47405; 812-335-9365)

18-20 **APS Nuclear Phys Div** Nashville, TN 7/83

21-26 **5th Int Mtg on Radiation Processing** San Diego, CA 9/83

22-24 **1984 Int Symp on Noise and Clutter Rejection in Radars and Imaging Sensors** Tokyo (T. Mushi, Dept. of Appl. Elec., Tokyo Inst. of Tech., 4259, Nagatsuta, Midori-ku, Yokohama, 227, Japan) [2/10/84]

27-3 **APS Plasma Phys Div** Boston 7/83

29-2 **OSA Ann Mtg** San Diego, CA 7/83

## NOVEMBER 1984

11-14 **8th Conf on the Application of Accelerators in Research and Industry** Denton, TX (J. L. Duggan, Dept. of Phys., North TX State Univ., Denton, TX 76203)

18-20 **APS Fluid Dynamics Mtg** Providence, RI 9/83

25-30 **Joint AAPM—Radiological Soc of N Amer Mtg** Washington, DC 9/83

## DECEMBER 1984

4-7 **31st National Vacuum Symp** Reno, NV 9/83

4-10 **6th Int Conf on Fracture** New Delhi, India 9/83

## JANUARY 1985

13-16 **165th AAS Mtg** Tucson, AZ (P. Boyce, AAS, 1816 Jefferson Pl. NW, Washington, DC 20036)

20-24 **APS/AAPT Gen Mtg** Toronto 9/83

## FEBRUARY 1985

11-14 **Top Mtg on Optical Fiber Communication** [OSA, IEEE] San Diego, CA (OSA, 1816 Jefferson Pl. NW, Washington, DC 20036)

## MARCH 1985

25-29 **APS Gen Mtg** Baltimore (W. Havens Jr, 335 E. 45 St., New York, NY 10017)

## APRIL 1985

8-12 **109th Ann Mtg of ASA** Austin, TX (B. Goodfriend, ASA, 335 E. 45 St., New York, NY 10017)

22-26 **14th Int Symp on Acoustical Imaging** The Hague, The Netherlands (J. Ridder, PO Box 5046, 2600 GA Delft, The Netherlands)

25-27 **APS Spring Mtg** Washington, DC (W. Havens Jr, 335 E. 45 St., New York, NY 10017)

## MAY 1985

22-25 **Conf on Lasers and Electro Optics** [OSA, IEEE] Baltimore (OSA, 1816 Jefferson Pl. NW, Washington, DC 20036)

23-28 **AAAS Ann Mtg** Los Angeles (AAAS, 1776 Massachusetts Ave. NW, Washington, DC 20036)

## JUNE 1985

17-21 **AAPT Mtg** Flagstaff, AZ (AAPT, Graduate Phys. Bldg. SUNY, Stony Brook, NY 11794)

## AUGUST 1985

11-15 **27th Ann Mtg of AAPM** Seattle, WA (E. Osterman, 335 E. 45 St., New York, NY 10017)

## NOVEMBER 1985

4-8 **110th Ann Mtg of ASA** Nashville, TN (B. Goodfriend, ASA, 335 E. 45 St., New York, NY 10017)

18-22 **32nd Nat Vacuum Symp** Dallas, TX (N. Hammond, 335 E. 45 St., New York, NY 10017) □