

porated in Cabibbo's weak interaction theory. (CP invariance means invariance under the product of charge conjugation and space reflection.) G. Zweig (California Institute of Technology), reporting on work performed with F. Zachariasen, showed how the generator densities of  $U(12)$ , which contains  $SU(6)$ , can be used as weak interaction "currents." Their use results in a CP violation in the parity-violating part of the weak interaction. This theory also predicts no CP violation in the leptonic decays.

Four more theoretical papers were presented at the conference. L. Brown (Northwestern University) presented theoretical arguments, involving meson decays, for the existence of the  $\sigma$  particle, a scalar meson with  $J^P = 0^+$  and isotopic spin zero with a mass of about 2.9 times that of a  $\pi$ -meson. So far, there has been no direct experimental observation of this particle. Tests of  $SU(3)$  and higher symmetries were the subject of a talk by H. Lipkin (Weizmann Institute of Science). Y. Ne'eman (California Institute of Technology) discussed the role of non-compact groups and their representations in strong interaction physics. A group which combines  $SU(3)$  symmetry and the Poincaré group was described by B. Kursunoglu in his talk.

The two experimental talks given at the conference were excellent. G. Goldhaber (University of California) gave a survey of the experimental status of many of the recently discovered resonances, while he emphasized the difficulties of analysis that arise when one deals with higher resonances whose decay products include another resonance. The present status of very-high-energy scattering experiments was described by S. Lindenbaum (Brookhaven National Laboratory).

The wide-ranging considerations of symmetry principles in high-energy physics were shown clearly in the résumé of Y. Ne'emann, who gave an admirable summary of the past successes and possible future directions of symmetry principles in particle physics.

The conference was sponsored by the University of Miami, the National Science Foundation, Air Force Office of Scientific Research, the National Aeronautics and Space Administration, and the Atomic Energy Commission. The principal organizer was Behram Kursunoglu.

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## Forthcoming Events

### May

9-13. **Electrochemical Soc.**, San Francisco, Calif. (ES, 30 E. 42 St., New York)

9-13. **American Assoc. of Orthodontists**, annual, Dallas, Tex. (J. E. Brophy, 7477 Delmar Blvd., St. Louis, Mo. 63130)

9-13. **American Urological Assoc.**, New Orleans, La. (W. P. Didusch, 1120 N. Charles St., Baltimore 1, Md.)

9-14. **Condensation Nuclei**, 6th intern. symp., Albany, N.Y., and University Park, Pa. (Organizing Committee, Office of the Director, ASRC-SUNY, P.O. Box 7112, Albany 12224)

10-11. **Passive Gravity-Gradient Stabilization**, symp., Moffett Field, Calif. (B. Tinling, Theoretical Guidance and Control Branch, NASA Ames Research Center, Moffett Field 94035)

10-12. **Aerospace Electronics**, natl. conf., Dayton, Ohio. (Inst. of Electrical and Electronics Engineers, 1414 E. 3 St., Dayton 2)

10-12. **Canadian Nuclear Assoc.**, intern. conf., Quebec. (General Manager, CNA, 19 Richmond St. W., Toronto, Ont.)

10-12. **Organic Crystals**, intern. symp., Chicago, Ill. (Secretary of the Symposium, Univ. of Chicago, 5640 S. Ellis Ave., Chicago 60637)

10-12. **Quality Control**, 1st Pan American congr., Mexico, D.F. (E. R. Ott, c/o Statistics Center, Rutgers Univ., New Brunswick, N.J. 08903)

10-13. **National Geriatrics Soc.**, New York, N.Y. (W. Spigler, 1355 Cheltenham Ave., Philadelphia, Pa.)

10-13. **Southwestern Surgical Congr.**, 17th annual, Hot Springs, Ark. (Central Office, 301 Pasteur Medical Bldg., Oklahoma City, Okla. 73103)

10-14. **Pulsed Neutron Research**, Karlsruhe, Germany. (J. H. Kane, Intern. Conferences Branch, U.S. Atomic Energy Commission, Washington, D.C. 20545)

10-14. **Specific Tumor Antigens**, Sukhumi, Georgia, U.S.S.R. (Acad. of Medical Sciences of the U.S.S.R., 14, Sol'yanka, Moscow)

10-21. **Committee on Space Research**, 8th plenary meeting, Buenos Aires, Argentina. (Secretariat, 55 Boulevard Malesherbes, Paris 8<sup>e</sup>, France)

11-13. **Vectorcardiography**, intern. conf. New York, N.Y. (E. C. Meilman, Long Island Jewish Hospital, New Hyde Park, N.Y. 11040)

11-14. **Gas Chromatography**, 5th symp., Berlin, Germany. (Unterkommission für Gaschromatographie, Sektion Chemie, Deutsche Akademie der Wissenschaften zu Berlin, Permoserstr. 15, Leipzig 05, Germany)

12. **Institution of Metallurgists**, annual, London, England. (Institution, 4 Grosvenor Gardens, London, S.W.1)

12-13. **Control of Water Quality**, natl. forum, American Soc. for Testing and Materials, Philadelphia, Pa. (ASTM, Committee D-19 on Industrial Water, 1916 Race St., Philadelphia 19103)

12-24. **Power Instrumentation**, 8th natl. symp., New York, N.Y. (H. H. Johnson, 4 Irving Pl., New York 10013)

13. **Society for Personnel Administration**, 4th annual conf., Catholic Univ.,

Washington, D.C. (H. G. Vavra, SPA, 1221 Connecticut Ave., NW, Washington, D.C.)

13-14. **American Inst. of Mining, Metallurgical, and Petroleum Engineers**, New England regional conf., Hartford, Conn. (AIMMPE, 345 E. 47 St., New York 10007)

13-14. **Canadian Council of Professional Engineers**, annual, Charlottetown, Prince Edward Island. (CCPE, 116 Albert St., Ottawa 4, Ontario)

13-14. **Signal Transmission and Processing**, symp., New York, N.Y. (L. E. Franks, Bell Telephone Laboratories, 1600 Osgood St., North Andover, Mass. 01845)

13-15. **American Inst. of Industrial Engineers**, 16th annual, Chicago, Ill. (W. J. Jaffe, Dept. of Industrial Engineering, Newark College of Engineering, Newark, N.J. 07102)

13-15. **Powder Metallurgy**, 3rd intern., Eisenach, East Germany. (Gesellschaft Deutscher Berg- und Hüttenleute, Wallstr. 68, Berlin C.2, East Germany)

13-19. **Space Science**, 6th intern. symp., Buenos Aires, Argentina. (COSPAR Secretariat, 55, Boulevard Malesherbes, Paris 8<sup>e</sup>, France)

14-15. **Association of University Radiologists**, annual, Seattle, Wash. (A. R. Margulis, AUR, Dept. of Radiology, Univ. of California Medical Center, San Francisco)

16-19. **American Inst. of Chemical Engineers**, 56th natl., San Francisco, Calif. (A. E. Aronson, A. B. Dick Co., 5700 W. Touhy Ave., Chicago 48)

16-20. **Institute of Food Technologists**, annual, Kansas City, Mo. (C. L. Wiley, Suite 1350, 170 W. Adams St., Chicago, Ill. 60603)

16-21. **Mass Spectrometry**, 13th annual conf., St. Louis, Mo. (H. M. Rosenstock, Natl. Bureau of Standards, Washington, D.C. 20234)

17-18. **Canadian Aeronautics and Space Inst.**, annual, Vancouver, B.C. (H. C. Luttman, 77 Metcalfe St., Ottawa 4, Ont.)

17-19. **Application of Computing Methods to Reactor Problems**, conf., Argonne, Ill. (B. J. Toppel, Reactor Physics Div., Argonne Natl. Laboratory, 9700 S. Cass Ave., Argonne)

17-19. **American College of Physicians**, Far East session, Tokyo, Japan. (Session Coordinator ACP, USAF Hospital Tachikawa, APO 323, San Francisco, Calif.)

17-21. **American Soc. of Civil Engineers**, Minneapolis, Minn. (W. H. Wisely, ASCE, 345 E. 47 St., New York 10017)

17-21. **Nondestructive Testing in Nuclear Technology**, symp., Bucharest, Rumania. (P. Ghelardoni, Div. of Scientific and Technical Information, Intern. Atomic Energy Agency, Kärntner Ring 11, Vienna 1, Austria)

17-21. **Society of Photographic Scientists and Engineers**, annual conf., Cleveland, Ohio. (W. E. Granshaw, Eastman Kodak Co., 4605 Mackall Rd., South Euclid 21, Ohio)

17-21. **Technical Literature Abstracting and Indexing**, American Univ., Washington, D.C. (P. W. Howerton, 2000 G St., NW, Washington 20006)

18-20. **Aerospace Fluid Power Systems and Equipment**, conf., Los Angeles, Calif. (Soc. of Automotive Engineers, 485 Lexington Ave., New York 10017)

- 18-20. **Power Sources**, 20th conf., U.S. Army Electronics Research and Development Laboratories, Atlantic City, N.J. (H. W. Schwarz, PSD, Fort Monmouth, N.J. 07703)
- 18-20. **Telemetering**, intern. conf., Washington, D.C. (J. D. Cates, ITC/USA/65, White Sands Missile Range, N.M.)
19. **Memorial Hospital of Long Beach**, symp., Long Beach, Calif. (G. X. Trimble, Memorial Hospital, 2801 Atlantic Ave., Long Beach 90801)
- 19-21. **Atherosclerosis**, Czechoslovak-Italian symp., Prague, Czechoslovakia. (T. Zemlenyi, Thomayerova nemocnice, Prague-Krc, Czechoslovakia)
- 19-21. **Computer Applications**, power industry conf., Clearwater, Fla. (G. W. Stagg, American Electric Power Service Corp., 2 Broadway, New York 10008)
- 19-21. **Gamete Transport, Fertilization, and Preimplantation Mechanisms**, conf., Vanderbilt Univ., Nashville, Tenn. (Dept. of Obstetrics and Gynecology, Vanderbilt Univ. School of Medicine, Nashville 37203)
- 19-21. **Mathematical and Quantitative Linguistics**, intern. conf., New York, N.Y. (Y. Gentilhomme, 11, rue Linne, Paris 5<sup>e</sup>, France)
- 19-22. **Society of Technical Writers and Publishers**, 12th annual conv., New York, N.Y. (H. Adler, Data Communication, Inc., 404 Park Ave. South, New York 10016)
- 19-22. **Southern Textile Research** conf., 5th annual, Hildon Head Island, S.C. (W. H. Martin, Inst. of Textile Technology, Charlottesville, Va.)
20. **Institution of Mining and Metallurgy**, annual, London, England. (The Institution, 44 Portland Pl., London, W.1)
- 20-21. **Chemical Engineering**, conf., Sydney, Australia. (Secretary, Inst. of Engineers, Australia, Science House, Gloucester and Essex St., Sydney)
- 20-21. **Electrical Conduction** at Low Temperatures, European symp., London, England. (Administration Assistant, Inst. of Physics and the Physical Soc., 47 Belgrave Sq., London, S.W.1)
- 20-21. **Fiber Soc.**, Atlanta, Ga. (L. Rebenfeld, Box 625, Princeton, N.J.)
- 20-21. **Medical Diagnostic Applications of Ultrasound**, conf., Pittsburgh, Pa. (C. Moses, Univ. of Pittsburgh School of Medicine, Pittsburgh 15213)
- 20-22. **American Cleft Palate Assoc.**, annual, New York, N.Y. (C. O. Wells, Parker Hall, Columbia, Mo.)
- 20-22. **Diabetology**, Paris, France. (M. Rathery, Hôtel-Dieu, 1, Pl. du Parvis Notre-Dame, Paris 4<sup>e</sup>)
- 20-22. **American Gynecological Soc.**, New York, N.Y. (C. J. Lund, 260 Crittenden Blvd., Rochester 20, N.Y.)
- 20-25. **Intersexuality in Fishes**, Sarasota, Fla. (E. Clark, Cape Haze Marine Laboratory, 9501 Blind Pass Rd., Sarasota)
- 21-22. **Surface Physics**, 3rd annual symp., Pullman, Wash. (E. E. Donaldson, Dept. of Physics, Washington State Univ., Pullman)
- 21-22. **Women of Science**, symp., Bennington, Vt. (H. W. Toolan, Putnam Memorial Hospital Inst. for Medical Research, Bennington)
- 21-23. **Exfoliative Cytology**, 2nd intern. congr., Paris, France. (Intern. Acad. of Cytology, 5841 Maryland Ave., Chicago, Ill. 60637)
- 23-24. **American Laryngological Assoc.**, annual, Colorado Springs, Colo. (L. G. Richards, 12 Clovelly Rd., Wellesley Hills 82, Mass.)
- 23-26. **Administrative Management Soc.**, 46th intern. conf., Minneapolis, Minn. (R. C. Walter, 32 W. 40 St., New York 10018)
- 23-26. **Radiation Research**, 13th annual, Philadelphia, Pa. (A. C. Upton, Biology Div., Oak Ridge Natl. Laboratory, Oak Ridge, Tenn.)
- 23-26. **Social Medicine**, intern. conf., Berlin, Germany. (Secretariat, Deutsche Gesellschaft für Sozialmedizin, Alstergracis 3, Hamburg 13, Germany)
- 24-26. **Hygiene and Preventive Medicine**, 4th intern. congr., Vienna, Austria. (Vienna Acad. of Medicine, Alserstr. 4, Vienna 9)
- 24-26. **Standardization of Pharmaceutical Preparations**, 2nd intern. congr., Leipzig, East Germany. (J. Richter, Deutsches Inst. für Arzneimittelwesen, Grosse Seestr. 4, Berlin-Weissensee, East Germany)
- 24-27. **Thyroid**, 5th intern. conf., Rome, Italy. (T. Winship, American Thyroid Assoc., 110 Irving St., NW, Washington, D.C. 20010)
- 24-28. **Australian Inst. of Metals**, annual conf., Brisbane. (Secretary, AIM, P.O. Box 107, North Quay, Brisbane)
- 24-28. **International Planned Parenthood Federation**, Western Pacific regional conf., Seoul, Korea. (T. Katagiri, IPPF Western Pacific Regional Office, No. 2, 1-chome, Sadohara-cho, Ichigaya, Shinjuku, Tokyo, Japan)
- 24-28. **Radioisotope Sample Measurement Techniques** in Medicine and Biology, intern. symp., Vienna, Austria. (J. H. Kane, Intern. Conferences Branch, Div. of Special Projects, U.S. Atomic Energy Commission, Washington, D.C. 20545)
- 24-29. **International Federation for Information Processing**, congr., New York, N.Y. (AFIP, 345 E. 47 St., New York 10017)
- 24-1. **Cloud Physics**, intern. conf., Tokyo and Sapporo, Japan. (H. Hatakeyama, Japan Meteorological Agency, Otemachi Chiyoda-ku, Tokyo)
25. **American Iron and Steel Inst.**, annual, New York, N.Y. (G. S. Rose, 150 E. 42 St., New York 10017)
- 25-26. **American Otological Soc.**, Colorado Springs, Colo. (J. A. Moore, 525 E. 68 St., New York 10021)
- 25-27. **Armed Forces Communications and Electronics Assoc.**, 19th annual conv., Washington, D.C. (AFCEA, 1725 Eye St., NW, Washington 20006)
- 25-27. **American Astronautical Soc./Aerospace Electrical Soc., Space Electronics symp.**, Los Angeles, Calif. (L. T. Isaacs, Douglas Aircraft Corp., Long Beach, Calif.)
- 25-28. **American Assoc. for Contamination Control**, 4th annual, Miami Beach, Fla. (W. T. Maloney, AACC, 6 Beacon St., Boston, Mass. 02108)
- 25-29. **Structure and Control of the Melanocyte**, conf., Sofia, Bulgaria. (N. Anchev, c/o Oncological Inst., Sofia)
- 25-29. **American Assoc. on Mental Deficiency**, 89th annual, Miami Beach, Fla. (J. E. Horner, AAMD, Oregon Fairview Home, 2250 Strong Rd., SE Salem)
- 26-28. **Canadian Botanical Assoc.**, Carleton University, Ottawa, Ont. (R. L. Taylor, Plant Research Inst., C.E.F., Ottawa, Canada)
- 26-28. **Cineradiography**, 3rd symp., Antwerp, Belgium. (S. Masy, Steenweg op Waver 256, Heverle, Belgium)
- 26-28. **Peaceful Uses of Space**, 5th natl. conf., St. Louis, Mo. (G. W. Ferguson, Fleishman-Hillard, Inc., 407 N. 8 St., St. Louis 63101)
- 26-28. **Analysis Instrumentation and Chemical and Petroleum Instrumentation**, 1st ISA intern. symp., Montreal, Quebec, Canada. (E. J. Minnar, ISA, 530 William Penn Pl., Pittsburgh, Pa. 16219)
- 26-29. **Biological Characterization of Human Tumors**, intern. symp., Abbaye de Royaumont, France. (W. Davis, c/o Chester Beatty Research Inst., Fulham Rd., London, S.W.3, England)
- 26-29. **Electrochemical Aspects of Molecular Biology**, symp., Jena, East Germany. (H. Berg, Inst. für Mikrobiologie und Experimentelle Therapie, Deutsche Akademie der Wissenschaften zu Berlin, Beuthenbergstr. 11, Jena)
- 27-29. **American Gastroenterological Assoc.**, Montreal, Quebec, Canada. (D. Cayer, 2240 Cloverdale Ave., Winston-Salem, N.C.)
- 27-29. **American Ophthalmological Soc.**, Hot Springs, Va. (S. D. McPherson, Jr., 1110 W. Main St., Durham, N.C.)
- 27-29. **American Assoc. of Physical Anthropologists**, annual, Pennsylvania State Univ., University Park. (F. E. Johnston, Dept. of Anthropology, Univ. of Pennsylvania, Philadelphia 4)
- 27-30. **Neuro-Ophthalmology and Neurogenetics**, intern. congr., Albi, France. (M. Amalric, Congrès Intern. de Neuro-Ophthalmologie et Neuro-Génétique, B.P. 79, Albi, Tarn, France)
- 27-30. **German Bunsen Soc. for Physical Chemistry**, 64th general assembly, Innsbruck, Austria. (Deutsche Bunsen-Gesellschaft für Physikalische Chemie, Varrentrappstr. 40-42, 6 Frankfurt am Main, Germany)
- 27-11. **World Meteorological Organization**, 17th executive committee session, Geneva, Switzerland. (WMO, 41 avenue Giuseppe Motta, Geneva)
- 28-1. **Canadian Assoc. of Geographers**, annual, Vancouver, B.C. (Local Arrangements Committee, Dept. of Geography, University of British Columbia, Vancouver 8)
- 30-2. **Recent Advances in Adrenal Steroid Metabolism**, symp., Montreal, Quebec, Canada. (Chemical Inst. of Canada, 48 Rideau St., Ottawa 2)
- 30-2. **Canadian Dental Assoc.**, conv., Quebec. (L. Bernier, 1024, avenue des Erables, Quebec)
- 30-2. **American Thoracic Soc.**, Chicago, Ill. (F. W. Webster, 1790 Broadway, New York 10019)
- 30-2. **National Tuberculosis Assoc.**, Chicago, Ill. (S. Wicker, 1790 Broadway, New York 10019)
- 30-3. **Medical Library Assoc.**, annual, Philadelphia, Pa. (MLA, 919 N. Michigan Ave., Chicago 11, Ill.)
- 31-2. **Chemical Inst. of Canada**, 48th conf., Montreal, Quebec. (Chemical Inst. of Canada, 48 Rideau St., Ottawa 2)