

Professor R. von Mises, of Harvard University "On the Foundations of Probability and Statistics"; on Thursday morning there will be addresses by Professor J. Neyman, of the University of California, on the "Estimation by Intervals as a Problem in Classical Probability" and by Dr. J. F. Daly, of the Catholic University, on "Statistical Estimation in Large Samples."

The Mathematical Association will hold two sessions on Thursday, one in the morning and one in the afternoon.

A joint dinner of the societies will be held on Tuesday evening at seven o'clock in Thayer Hall. On Monday evening at 8 o'clock there will be an entertainment in Dartmouth Hall, followed by an open house. During the evening there will be an exhibition of a collection of string models of ruled surfaces constructed by Professor Robin Robinson.

On Wednesday afternoon there will be an excursion to Franconia Notch in the White Mountains. Busses will leave Massachusetts Row at 1:30 P.M. It is expected that the busses will return to Hanover between 8 and 9 P.M. A picnic lunch *en route* is planned.

RECENT DEATHS

DR. CHARLES PURYEAR, dean emeritus of the Agricultural and Mechanical College of Texas, died on July 11. He was seventy-nine years old. Dr. Puryear was professor of mathematics at the college from 1890 to 1932.

ARTHUR HOLMES HOWELL, senior biologist of the

Bureau of Biological Survey of the U. S. Department of Agriculture, now a division of the Fish and Wild Life Service, died on July 10 at the age of sixty-eight years. Mr. Howell became a member of the staff of the Biological Survey in 1895.

DR. ALVAH HORTON SABIN, consulting chemical engineer of the National Lead Company, died on July 8 at the age of eighty-nine years.

DR. JOSEPH WILLIAMS SCHERESCHEWSKY, medical officer in charge of cancer investigations of the U. S. Public Health Service, associate in preventive medicine and hygiene at the Harvard Medical School, died on July 9. He was sixty-seven years old.

THE death is announced of Dr. Hans Virchow, professor of anatomy at the University of Berlin.

Nature records the death of Sir Thomas Hudson Beare, regius professor of engineering in the University of Edinburgh, on June 10, aged eighty years; of Oliver Gatty, research chemist, aged thirty-two years, and A. S. Chessum, research engineer, aged twenty-seven years, during an experiment in connection with air-raid precautions, on June 5; of Sir Jocelyn Thorpe, emeritus professor of organic chemistry of the University of London and in the Imperial College of Science and Technology, on June 10, aged sixty-seven years. Sir Arnold Wilson, distinguished for his administrative work in India and Persia, chairman of the British Industrial Health Research Board from 1926 to 1933, has been reported by the War Office as missing.

SCIENTIFIC NOTES AND NEWS

DR. RICHARD C. TOLMAN, of the California Institute of Technology, has been elected vice-chairman of the Defense Research Committee recently appointed by President Roosevelt with Dr. Vannevar Bush, president of the Carnegie Institution of Washington, as chairman. Brigadier General G. V. Strong, assistant chief of staff of the Army, and Rear Admiral Harold G. Bowen, director of the Naval Research Laboratory, have been assigned to this committee as representatives, respectively, of the War and Navy Departments. Other members of the committee are: President Karl T. Compton, of the Massachusetts Institute of Technology; President James B. Conant, of Harvard University; Dr. Frank B. Jewett, president of the National Academy of Sciences, and Commissioner of Patents Conway P. Coe.

THE new laboratory of the National Advisory Committee for Aeronautics, at Moffett Field, Calif., will be named for President Emeritus J. S. Ames, of the Johns Hopkins University, who was chairman of the

committee for twenty years before his retirement last autumn.

HAROLD EARLE THOMPSON, vice-president and chief engineer of the Carbide and Carbon Chemicals Corporation, New York, N. Y., received the degree of doctor of science from West Virginia University at its commencement exercises in recognition of "outstanding contributions to the fields of engineering and chemistry and his part in the development of the chemical industry of the Kanawha Valley."

COLGATE UNIVERSITY has conferred the doctorate of science on Charles Edward Wilson, president of the General Electric Company, and on Dr. Richard H. Hutchings, retired superintendent of the Marcy State Hospital at Utica.

IN addition to the awards in Group I for exhibits of individual investigation, which are judged on the basis of originality and excellence of presentation, made at the recent meeting in New York City of the

American Medical Association, which were reported in the issue of *SCIENCE* for June 21, awards were made to a second group not exemplifying purely experimental studies but judged on the basis of excellence of presentation and correlation of facts. In this group the gold medal was awarded to Norman Treves, Memorial Hospital, New York, for an exhibit illustrating the significance of the bleeding nipple; the silver medal to A. H. Logan, P. W. Brown, J. A. Bargen, H. M. Weber, L. A. Buie, H. H. Bowing, A. H. Baggenstoss, C. F. Dixon, J. deJ. Pemberton and C. W. Mayo, of the Mayo Clinic, Rochester, Minn., for an exhibit on Polyps of rectum and colon, and the bronze medal to W. H. Wright, National Institute of Health, for an exhibit illustrating the public health aspects of trichinosis.

DR. BERNARD W. HAMMER, professor of dairy industry at Iowa State College, has been presented with the Borden Award in recognition of outstanding research in dairy science. The award, consisting of a gold medal and \$1,000, was given at the annual convention of the American Dairy Science Association at Purdue University. Professor Hammer's most recent research has contributed to improvements in the flavor and quality of cheese and butter.

Nature states that a joint committee of the Royal Society of Edinburgh, of the Royal Physical Society and of the Royal Scottish Geographical Society has awarded the Dr. W. S. Bruce Memorial Prize (1940) to Brian Roberts, Emmanuel College, Cambridge, "for his valuable work in survey, ornithology and general biology in the north and south Polar regions."

THE Goethe Medal for art and science of the German Government has been awarded to Dr. Heinrich Ewald Herring, professor of normal and pathological physiology at Cologne; to Dr. Ludwig Kiessling, professor of agriculture and plant industry at Munich, and to Dr. Arthur Wehnelt, professor of physics at Berlin.

THE Union of German Chemists has awarded the Carl-Duisberg Memorial Prize to Dr. Hans Brockman, docent in organic chemistry at Göttingen, and the Adolf Fick Prize for physiology to Dr. Karl Lohmann, professor of physiological chemistry at Berlin.

OFFICERS of the Society for the Promotion of Engineering Education have been elected as follows: *President*, Donald B. Prentice, Rose Polytechnic Institute; *Vice-presidents*, L. E. Conrad, Kansas State College, and E. L. Moreland, Massachusetts Institute of Technology; *Secretary*, F. L. Bishop, University of Pittsburgh; *Treasurer*, W. O. Wiley, New York City, and *Assistant Secretary*, Nell McKenry, University of Pittsburgh. *Members of the Council* elected for a

term of three years are: C. S. Ell, Northeastern University; W. Otto Birk, University of Colorado; H. A. Curtis, University of Missouri; A. R. Cullimore, Newark College of Engineering; H. E. Degler, University of Texas; D. P. Savant, Georgia School of Technology, and George T. Seabury, American Society of Civil Engineers. The 1941 meeting will be held at the University of Michigan from June 23 to 27. The meeting for 1942 will be held in New York City.

DR. FREDERICK C. WAITE, for thirty-nine years a member of the faculty of the School of Medicine of Western Reserve University, retired at the end of the academic year with the title professor emeritus of histology and embryology.

DR. GEORGE WAGONER has been appointed professor of orthopedic research and director of the Laboratory of Research in Orthopedic Surgery in the Graduate School of Medicine of the University of Pennsylvania.

DR. Z. I. KERTESZ, associate in research in chemistry at the New York State Agricultural Experiment Station, Geneva, and assistant professor of chemistry at Cornell University, has been promoted to be chief of chemical research at the station and has been promoted to a professorship of chemistry at the university.

COLONEL GLEN E. EDGERTON, U. S. Army, engineer of maintenance at Panama, has been named governor of the Panama Canal.

DR. R. B. JACOBS, formerly instructor in physics at Harvard University and Lalor Fellow at the Massachusetts Institute of Technology, has been appointed assistant secretary of the National Research Council. He took up the work on July 15.

THE *Journal* of the American Medical Association states that Dr. William T. Green, assistant professor of orthopedic surgery, Harvard Medical School, has been made director of the after-care clinic of the Harvard Infantile Paralysis Commission. Dr. Green has charge of one of the two main divisions of the scientific work of the commission. The clinic in the Children's Hospital cares for about 1,400 children annually and conducts investigations of methods of treatment of infantile paralysis and of its after-effects. Dr. William Lloyd Aycock, assistant professor of preventive medicine and hygiene, Harvard Medical School, is in charge of the division of laboratory research, including study of the causation and epidemiology of the disease. The commission was established by the Harvard Corporation in 1916.

DR. WILLIAM CRAMER, a German by birth, for more than twenty-five years a member of the Imperial Cancer Research Fund, London, has joined the staff of the Barnard Free Skin and Cancer Hospital, New

York City, where he will study the early stages of cancer in animals. The appointment of Dr. Cramer has been made possible by an anonymous donor, who provided sufficient funds to bring him to the United States for a year.

NEWTON B. DRURY, of the California State Park System, has been appointed to succeed Arno B. Cammerer as director of the National Park Service. Mr. Cammerer has been transferred to Richmond, Va., where he will serve as regional director. Miner R. Tillotson will be transferred from the directorship of Region One to that of Region Three, covering the Southwestern states, with headquarters at Santa Fe, New Mexico. Colonel John R. White, now regional director at Santa Fe, will be transferred to San Francisco, Calif., to take up there the work of regional director of Region Four, in the Far West, and Frank A. Kittredge, regional director of Region Four, will become superintendent of Grand Canyon National Park, Arizona.

Nature reports that Dr. S. S. Bhatnagar, professor of chemistry at the University of Lahore, has been lent for two years to the Government of India as director of scientific and industrial research.

ACCORDING to the London *Times* the trustees of the Lady Tata Memorial Fund have decided that if circumstances permit grants will be made during the academic year beginning on October 1 to defray the expenses of research in blood diseases, with special reference to leukemia. Grants have therefore been tentatively awarded to Dr. M. P. J. Guérin, Paris; Professor K. Jármai, Budapest; Professor E. L. Opie and Dr. J. Furth, New York; Dr. A. H. T. Robb-Smith, Oxford; Dr. Werner Jacobson, Cambridge.

PHILIP E. PRATT, who recently received the doctorate in organic chemistry at the State University of Iowa, and Allison S. Burhans, a graduate of Duke University, have been appointed members of the research and development staff at Bloomfield, New Jersey, of the Bakelite Corporation, Unit of Union Carbide and Carbon Corporation.

DR. LOUIS A. KAZAL, of Rutgers University, has been appointed a member of the staff of the Biochemical Laboratory of the Medical Research Division of Sharp and Dohme, Glenolden, Pa.

DR. ENRICO FERMI, of Columbia University, recently gave a lecture on "Energy Production in Stars" at the University of Chicago, where he is visiting professor of physics.

DR. M. RUIZ CASTANEDA, director of the Department of Medical Research of the General Hospital, Mexico City, has returned to Mexico after visiting scientific institutions in the United States. He gave lectures on his work on typhus before the Rockefeller Institute for Medical Research, New York City; the Hoagland Laboratories, Brooklyn; the Institute of Medicine, Chicago, and the Mayo Foundation, Rochester, Minn.

THE council of the British Medical Association has decided, in view of the present situation, not to hold the annual representative meeting provisionally arranged for July 19 and 20.

THE Semicentennial of the Biological Laboratory at Cold Spring Harbor, now of the Long Island Biological Association, was celebrated on June 29, 1940. Addresses were made by Arthur W. Page, president of the association; Professor Harold C. Urey, of Columbia University, and Dr. Robert Cushman Murphy, of the American Museum of Natural History. After a tea at Blackford Hall a series of exhibits was shown at the John D. Jones Laboratory, including among others the electric potentials of the electric eel, the living frog heart and of a marine algal cell, *Valonia*, and the application of electrophoresis to protection against allergies. In his address Dr. Urey stressed the importance of the Cold Spring Harbor Symposia and the appreciation of men of science of the people of the community who as patrons of the laboratory have given it financial aid and active interest. Dr. Murphy emphasized the special value of the laboratory due to its location inside the metropolitan district and the part it has played in improving biological instruction.

THE Massachusetts Institute of Technology has established a department of building engineering and construction, of which Professor Walter C. Voss has been appointed chairman. Associated with him on the staff will be Professor Dean Peabody, Jr., Howard R. Staley and Albert G. Dietz. The program of the new department will be based on the work of the course in building engineering and construction, which for several years has been given in the department of civil and sanitary engineering.

DISCUSSION

THE SAMPLING ERROR OF THE MEDIAN

IF σ be the standard deviation of a universe about its mean, the standard deviation of the mean of random samples of n drawn from the universe is always σ/\sqrt{n} ,

no matter how small n may be. The classic example of a universe for which the sampling error of the mean is infinite is

$$\varphi = \frac{1}{\pi} \frac{1}{1+x^2} \quad (1)$$