

PUBLICATIONS AND REPORTS

MEETING PAPERS PRESENTED

Institute for Behavioral Studies, Ann Arbor, Michigan
Sept. 1958

W. S. McCulloch, Reliability of biological computers (invited)

Second United Nations International Conference on the Peaceful Uses of Atomic Energy,
Geneva, Switzerland
Sept. 1-13, 1958

S. C. Brown, Microwave studies of gas discharge plasmas (invited)

Academy of Sciences U. S. S. R. , Conference on Gaseous Electronics, Moscow
Oct. 3, 1958

S. C. Brown, The use of high-frequency electromagnetic fields for studying the
physics of plasmas (invited)

International Colloquium on Electroencephalography of Higher Nervous Activity, Moscow
Oct. 6-11, 1958

M. A. B. Brazier, Long-persisting electrical traces in the brain of man and their
possible relationship to higher nervous activity (invited)

International Conference on Electromagnetic Wave Propagation, Liège
Oct. 6-11, 1958

E. J. Baghdady, Signal-cancellation techniques for capturing the weaker of two
cochannel FM signals (invited)

Michigan Chapter, Acoustical Society of America, Colloquium
Oct. 8, 1958

W. A. Rosenblith, Electrical activity in the auditory nervous system (invited)

Sixteenth Navy Symposium on Underwater Acoustics, New London
Oct. 15-17, 1958

J. A. Swets, Multiple observations of auditory signals in noise (invited)

La Semaine neurophysiologique de la Salpêtrière, Colloque sur l'intégration sensorielle,
Paris
Oct. 24, 1958

W. S. McCulloch, A logic appropriate to neurology (invited)

Sixth Annual Meeting, Armed Forces-National Research Council Committee on Hearing
and Bio-Acoustics (CHABA), Working Group 33, Washington, D. C.
Oct. 28, 1958

U. Ingard, Member of panel discussion of bio-acoustic aspects of rockets, missiles,
and space travel (invited)

MEETING PAPERS PRESENTED (continued)

Behavioral Sciences Division, U. S. Air Force, Office of Scientific Research, Symposium on Mathematical Models and Computer and Simulation Tools for Use in Systems Research and System Design, Endicott House, M. I. T.
Nov. 3-7, 1958

W. A. Rosenblith, Organizational features of sensory systems (invited)

King's College Symposium, London
Nov. 4, 1958

W. S. McCulloch, Communication in the nervous system (invited)

Runwell Hospital, London
Nov. 6, 1958

W. S. McCulloch, Reliability of biological mechanisms (invited)

University College, London
Nov. 13, 1958

W. S. McCulloch, The use of redundancy to minimize anatomical constraints on chaos (invited)

Social Relations Seminar, Harvard University
Nov. 17, 1958

W. A. Rosenblith, Neurophysiological considerations of perceptual processes (invited)

Lectures at Veterans Administration Hospital, Lexington, Kentucky
Nov. 17-18, 1958

M. A. B. Brazier, The electrical activity of the nervous system (invited)

Russian neurophysiology (invited)

Symposium on Computers in Biology, Mayo Clinic, Rochester, Minnesota
Nov. 19, 1958

P. Elias and W. A. Rosenblith, On the use and misuse of digital models in the study of the nervous system

Eleventh Annual Conference on Electrical Techniques in Medicine and Biology, Minneapolis
Nov. 19-21, 1958

J. S. Barlow, Autocorrelation and crosscorrelation analysis in electroencephalography (invited)

P. Elias and W. A. Rosenblith, The use and misuse of digital models in the study of the nervous system (invited)

B. G. Farley, L. S. Frishkopf, M. Freeman, C. Molnar, and T. Weiss, A summary description of EEG data with the aid of a digital computer (invited)

MEETING PAPERS PRESENTED (continued)

T. Sandel and T. Weiss, Statistical characteristics of evoked cortical activity
(invited)

Symposium on the Mechanization of Thought Processes, National Physical Laboratory,
Teddington, England
Nov. 20-27, 1958

W. S. McCulloch, Agathe Tyche: Of nervous nets – the lucky reckoners (invited)

M. L. Minsky, Some methods of artificial intelligence and heuristic programming
(invited)

Birmingham University, England
Nov. 20, 1958

W. S. McCulloch, Three of von Neumann's biological questions (invited)

Fifty-sixth Meeting, Acoustical Society of America, University of Chicago
Nov. 20-22, 1958

C. D. Geisler, C. M. Molnar, W. T. Peake, T. F. Weiss, and T. T. Sandel,
Loudness judgments on clicks

M. H. Goldstein, Jr., A physiologist views the theory of signal detectability
(invited)

G. W. Hughes, Identification of speech sounds by means of a digital computer

U. Ingard, Mode coupling on a string – An example of magneto-mechanics of
extended systems

U. Ingard and G. C. Maling, Jr., Noise generation by interacting air jets

W. W. Lang, Equivalent circuit representation of a flexible, porous medium

G. C. Maling, Jr., Effect of a plane on the power output of a monopole

C. I. Malme and K. N. Stevens, The detectability of small irregularities in a
broad-band noise spectrum

M. D. Mintz and U. Ingard, Experiments on scattering of sound by turbulence

W. T. Peake, M. H. Goldstein, Jr., and N. Y-S. Kiang, "Steady-state" auditory
nerve potentials for different stimulus repetition rates

G. Rosen and K. N. Stevens, Apparatus for the generation of psycho-acoustic
stimuli varying in complexity from noise bursts to syllables

K. N. Stevens, Effect of duration upon vowel identification

Electrical Engineering Society, London
Nov. 28, 1958

W. S. McCulloch, Several sources of reliability of biological computers (invited)

MEETING PAPERS PRESENTED (continued)

The 1958 Thanksgiving Meeting, American Physical Society, University of Chicago
Nov. 28-29, 1958

A. C. Melissinos and S. P. Davis, Dipole and quadrupole moments of isomeric radioactive Hg^{197*}; isomeric isotope shift

Physiological Society Meeting, National Institute for Medical Research, Mill Hill,
London, England
Dec. 6, 1958

W. S. McCulloch, Summary of the action of strychnine from a circuit-theoretic
point of view (invited)

JOURNAL ARTICLES ACCEPTED FOR PUBLICATION

(Reprints, if available, may be obtained from the Document Room,
26-327, Research Laboratory of Electronics, Massachusetts Insti-
tute of Technology, Cambridge 39, Massachusetts.)

- J. S. Barlow, M. A. B. Brazier, and W. A. Rosenblith, The application of autocorrelation analysis to electroencephalography (Proc. National Biophysics Conference, March 1957)
- M. H. Goldstein, Jr., N. Y-S. Kiang, and R. M. Brown, Responses of the auditory cortex to repetitive acoustic stimuli (J. Acoust. Soc. Am.)
- J. Greenburg, The effect of a magnetic field on thermionic emission from molybdenum (Phys. Rev.)
- H. A. Haus and R. B. Adler, Limitations des performances de bruit des amplificateurs linéaires (presented at Congrès Tubes Hyperfréquences, Paris, 1956) (Ond. Elec.)
- R. D. Larrabee, The spectral emissivity of tungsten (J. Opt. Soc. Am.)
- W. N. Locke and V. H. Yngve, Research in translation by machine at M. I. T. (Proc. VIII International Congress of Linguists)
- G. H. Matthews, Proto-Siouan kinship terminology (Am. Anthropol.)
- R. D. Mattuck and M. W. P. Strandberg, Optical method for determining the C-axis of ruby boules (Rev. Sci. Instr.)
- R. G. Meyerand, Jr. and S. C. Brown, A high-current ion source (Rev. Sci. Instr.)
- W. A. Rosenblith, Sensory performance of organisms (Revs. Modern Phys.)
- W. A. Rosenblith, Some quantifiable aspects of the electrical activity of the nervous system (with emphasis upon responses to sensory stimuli) (Revs. Modern Phys.)
- L. J. Slutsky and C. W. Garland, Elastic constants of indium antimonide from 4.2° K to 300° K (Phys. Rev.)
- J. A. Swets, Indices of signal detectability obtained with various psychophysical procedures (J. Acoust. Soc. Am.)

JOURNAL ARTICLES ACCEPTED FOR PUBLICATION (continued)

- J. A. Swets, E. F. Shipley, M. J. McKey, and D. M. Green, Multiple observations of signals in noise (*J. Acoust. Soc. Am.*)
- G. J. Wolga and M. W. P. Strandberg, Hyperfine interactions in F-center paramagnetic-resonance spectra in LiF and NaF (*J. Phys. Chem. Solids*)

LETTERS TO THE EDITOR ACCEPTED FOR PUBLICATION

- E. J. Baghdady, Alternative detection of cochannel FM signals (*Proc. IRE*)
- F. A. Cotton, A. Danti, J. S. Waugh, and R. W. Fessenden, Carbon-13 nuclear resonance spectrum and low-frequency infrared spectrum of iron pentacarbonyl (*J. Chem. Phys.*)
- R. Dalven and C. W. Garland, Elastic constants of sodium iodide from 180° K to 300° K (*J. Chem. Phys.*)
- C. D. Geisler, L. S. Frishkopf, and W. A. Rosenblith, Extracranial responses to acoustic clicks in man (*Science*)
- R. C. Gesteland and B. Howland, A bridge for measuring the impedance of metal microelectrodes (*Rev. Sci. Instr.*)
- R. J. Morris, R. L. Kyhl, and M. W. P. Strandberg, A tunable maser amplifier with large bandwidth (*Proc. IRE*)

TECHNICAL REPORTS PUBLISHED

(These and previously published technical reports, if available, may be obtained from the Document Room, 26-327, Research Laboratory of Electronics, Massachusetts Institute of Technology, Cambridge 39, Massachusetts.)

- 312 E. F. Bolinder, Impedance and power transformations by the isometric circle method and non-Euclidean hyperbolic geometry
- 316 H. A. Haus, Electron-beam waves in microwave tubes
- 344 E. F. Bolinder, Theory of noisy two-port networks

SPECIAL PUBLICATIONS

- L. S. Frishkopf and W. A. Rosenblith, Fluctuations in neural thresholds, Symposium on Information Theory in Biology (Pergamon Press, New York, 1958)
- W. A. Rosenblith and Eda Berger, Sensory communication and sensory performance, Medical Physics, Vol. III (Yearbook Publishers, Inc., Chicago, to be published in 1959)
- J. B. Wiesner, Are research and technology the Soviets' secret weapons?, Soviet Progress vs. American Enterprise (Doubleday and Company, Inc., Garden City, N. Y., 1958), pp. 65-78

