PUBLICATIONS AND REPORTS

MEETING PAPERS PRESENTED

International Conference on the Reticular Formation, Henry Ford Hospital, Detroit March 1957

M. A. B. Brazier, Studies of responses evoked by flash in man and cat

National Biophysics Conference, Columbus, Ohio March 4-6, 1957

- J. S. Barlow, M. A. B. Brazier, and W. A. Rosenblith, The application of autocorrelation analysis to electroencephalography
- W. A. Rosenblith, A probabilistic view of sensory communication (invited)

Optical Society of America, New York March 7-9, 1957

- J. W. Lindner, Jr. and S. P. Davis, Zeeman effect data for the spectra of erbium
- G. W. Stroke and L. C. Bradley III, Interferometry with continuously moving mirrors and photoelectric detection: theory and measurement of fringe "visibility," and effective length corrections

IRE, PGIT, Washington, D. C. March 11, 1957

R. M. Fano, The central problem of information theory and its practical implications

IRE National Convention, New York March 18-21, 1957

- E. J. Baghdady, Theory of feedback around the limiter
- P. Elias, Channel capacity without coding (invited)
- R. M. Fano, Cost of transmission reliability (invited)
- S. J. Mason, Signal flow graphs and how to avoid them
- J. M. Wozencraft, Sequential decoding for reliable communication

University of Toronto, Toronto March 22, 1957

W. S. McCulloch, Logisticon

Physical Biochemistry Seminar, Naval Medical Research Institute, Bethesda, Maryland March 26, 1957

W. A. Rosenblith, A probabilistic view of sensory communication (invited)

MEETING PAPERS PRESENTED (continued)

ERDL Symposium on Flicker, Fort Belvoir, Virginia, and Tulane University April 1957

M. A. B. Brazier, EEG studies of flicker in normal man

IRE, Philadelphia Section (with PGEC), Philadelphia April 3, 1957

W. S. McCulloch, Biological computers

IRE, PGIT, New York April 8, 1957

R. M. Fano, Coding, channel capacity, and transmission reliability

Harvard Linguistics Club, Harvard University, Cambridge April 9, 1957

M. Halle, The principles of phonology (invited)

University of Wisconsin, Madison April 9, 1957

N. Chomsky, Mechanical translation (invited)

IRE, Boston Section, Boston April 9, 1957

C. R. Hurtig, Low-frequency applications of transistors (invited)

IRE, PGAC, Boston Chapter, Boston April 10, 1957

 $S.\ J.\ Mason,\ Topological\ methods$ in the analysis of linear feedback diagrams

IRE, Connecticut Section, New Haven April 13, 1957

C. R. Hurtig, Low-frequency applications of transistors (invited)

American Mathematical Society, Chicago April 19-20, 1957

M. P. Schützenberger, D-representation of semigroups

MEETING PAPERS PRESENTED (continued)

American Academy of Neurology Seminars, Boston April 23, 1957

W. S. McCulloch, General review and applications to concepts of sensory system functioning (invited)

Microwave Research Institute Symposium on Solid State Circuits, Polytechnic Institute of Brooklyn, New York, April 23-25, 1957

M. W. P. Strandberg, The versitron – A new solid-state quantum mechanical amplifier

National Academy of Sciences Symposium on Biological Rhythms, Washington, D. C. April 24, 1957

W. A. Rosenblith, Rhythmic activity in populations of neurons (invited)

American Physical Society, Washington, D. C. April 25-27, 1957

- $C.\ F.\ Davis,\ Jr.\ and\ M.\ W.\ P.\ Strandberg,\ A\ simple\ technique\ for\ studying\ spin-lattice\ relaxation\ times$
- S. Krongelb and M. W. P. Strandberg, Torsion-rotation interaction in symmetric tops
- R. D. Mattuck and M. W. P. Strandberg, The micromodulator A device for measuring the intensity of microwave absorption lines

IRE, PGMTT, Boston Chapter, Boston May 2, 1957

M. W. P. Strandberg, Inherent noise of quantum-mechanical microwave amplifiers

American Otological Society, Washington, D. C. May 4, 1957

W. A. Rosenblith, Some uses of electronic computers in the study of the auditory nervous system (invited)

Engineering Inaugural Seminar, University of Pittsburgh, Pittsburgh May 10, 1957

W. S. McCulloch, Biological computers (invited)

URSI Meeting, Washington, D. C. May 22-25, 1957

- E. F. Bolinder, Some applications of the isometric circle method to impedance transformations through lossless two-port networks
- H. A. Haus and L. N. Howard, Theory of mode coupling. Part I
- L. N. Howard and H. A. Haus, Theory of mode coupling. Part II

MEETING PAPERS PRESENTED (continued)

Radio Engineers Club, Chicago May 23, 1957

W. S. McCulloch, Biological computers

Acoustical Society of America, New York May 23-25, 1957

- E. de Boer, Observations on inharmonic signals
- M. H. Goldstein, Jr. and N. Y. S. Kiang, Cortical responses to repeated clicks and bursts of noise

IRE, PGMTT, Long Island Chapter, Garden City, N. Y. May 28, 1957

M. W. P. Strandberg, Noise figures of quantum mechanical amplifiers

JOURNAL ARTICLES ACCEPTED FOR PUBLICATION

(Reprints, if available, may be obtained from the Document Room, 20-B-221, Research Laboratory of Electronics, Massachusetts Institute of Technology, Cambridge 39, Massachusetts)

- Y. Bar-Hillel, A logician's reaction to recent theorizing on information search systems (American Documentation)
- E. F. Bolinder, General method of analyzing bilateral, two-port networks from three arbitrary impedance measurements (Ericsson Technics)
- E. F. Bolinder, Survey of some properties of linear networks (Trans. IRE, PGCT)
- M. A. B. Brazier, A study of the late response to flash in the cortex of the cat (Acta Physiol. Pharmacol. Neerlandica)
- R. D. Haun, Jr. and J. R. Zacharias, Stark effect on cesium 133 hyperfine structure (Phys. Rev.)
- M. P. Madan, E. I. Gordon, S. J. Buchsbaum, and S. C. Brown, Determination of the coefficient of diffusion and frequency of ionization in microwave discharges (Phys. Rev.)
- M. Peter, A property of dielectric constants of dielectrics in thermal equilibrium (Lumped-circuit models of molecular absorption and molecular amplifiers) (J. Math. Phys.)
- L. J. Slutsky and C. W. Garland, Elastic constants of magnesium from 4.2°K to 300°K (Phys. Rev.)
- M. W. P. Strandberg, Computation of noise figure for quantum mechanical amplifiers (Phys. Rev.)

JOURNAL ARTICLES ACCEPTED FOR PUBLICATION (continued)

- M. W. P. Strandberg, Inherent noise of quantum mechanical amplifiers (Phys. Rev.)
- P. D. Wall and A. R. Johnson, Charges associated with the post-tetanic potentiation of a monosynaptic reflex (J. Neurophysiol.)

LETTERS TO THE EDITOR ACCEPTED FOR PUBLICATION

- M. P. Madan, Law of molecular interaction for krypton (Nuovo cimento)
- J. S. Waugh, Self-diffusion in solid methane (J. Chem. Phys.)

TECHNICAL REPORTS PUBLISHED

(These and previously published technical reports, if available, may be obtained from the Document Room, 20-B-221, Research Laboratory of Electronics, Massachusetts Institute of Technology, Cambridge 39, Massachusetts)

- 235 L. Tisza and I. Manning, Fluctuations and irreversible thermodynamics
- 309 A. G. Bose, A theory of nonlinear systems
- 314 P. M. Lewis II, Synthesis of voltage transfer functions
- 319 T. Marill, Detection theory and psychophysics

SPECIAL PUBLICATIONS

M. Halle, In defense of the number two ("Studies Presented to Joshua Whatmough," E. Pulgram, Ed., Mouton and Co., 'S-Gravenhage, Netherlands, 1957)