

PUBLICATIONS AND REPORTS
MEETING PAPERS PRESENTED

Particle Accelerator Conference, Washington, D.C.

March 1-3, 1967

L. M. Lidsky and D. Colombant, A High-Power Windowless Gas Target

Du Pont Company, Wilmington, Delaware

March 7, 1967

W. A. Rosenblith, The Communication Sciences and the Brain, Anno 1967
(invited)

IEEE International Convention, New York

March 20-23, 1967

E. V. Hoversten, The Atmosphere as an Optical Communication Channel

J. Katzenelson, D. S. Evans, and H. B. Lee, A Program for On-line
Analysis of Nonlinear Electronic Circuits

H. L. Van Trees, Analog Message Transmission : Bounds and System
Performance Comparisons

Twenty-seventh Annual Physical Electronics Conference, Massachusetts Institute
of Technology, Cambridge, Mass.

March 20-22, 1967

E. P. Gyftopoulos and D. Steiner, Orbital Electronegativity and Physical
Properties of Bimetallic Adsorption Systems

D. Steiner and E. P. Gyftopoulos, An Equation for the Prediction of Bare
Work Functions

Advanced Research Projects Agency, Washington, D.C.

March 24, 1967

W. A. Rosenblith, Sensory Communication : Anno 1967 (invited)

Society for Research in Child Development Meeting, New York

March 29-31, April 1, 1967

Paula Menyuk, Children's Learning and Recall of Grammatical and Nongram-
matical Phonological Sequences

First Annual Princeton Conference on Information Sciences and Systems, Princeton
University

March 30-31, 1967

T. S. Huang, System Study on Fourier-Transform Holographic Television

Optical Society of America, Columbus, Ohio

April 12-14, 1967

W. H. Miller, G. D. Bernard, and J. L. Allen, Reflection Properties of
Anthropod Corneas

MEETING PAPERS PRESENTED (continued)

New York Academy of Sciences Conference on Rein Control, or Unidirectional Rate Sensitivity, a Fundamental Dynamic and Organizing Function in Biology, New York

April 13-14, 1967

P. G. Katona, G. O. Barnett, and W. H. Levison, Asymmetry in the Carotid Sinus Reflex

W. S. McCulloch, The Fun of Failures (invited)

American Epidemiological Society Annual Meeting, Boston, Massachusetts

April 14, 1967

W. A. Rosenblith, Model-Making : Shadow and Substance (invited)

American Geophysical Union Annual Meeting, Washington, D.C.

April 17-20, 1967

G. Fiocco and G. Grams, Optical Radar and Airglow Observations during Noctilucent Cloud Displays

F. Koehler, Jr. and D. C. Papa, Observations of Microwave Emission by Molecular Oxygen in the Lower Stratosphere

Computer Simulation Symposium, The College of William and Mary, Williamsburg, Virginia

April 19-21, 1967

J. A. Davis and A. Bers, Computer Simulation of the Beam-Plasma Interaction

H. M. Schneider and A. Bers, Nonlinear Boundary Effects in Plasma Slab Oscillations

Seventy-third Meeting, Acoustical Society of America, New York

April 19-22, 1967

J. J. Guinan, Jr. Barbara E. Norris, and Shelley H. Swift, Paucity of Unit Responses in the Accessory Superior Olive of Barbiturate-Anesthetized Cats

M. Halle and K. Stevens, On the Mechanism of Glottal Vibration for Vowels and Consonants

U. Ingard and H. Ising, Acoustic Nonlinearity of an Orifice (invited)

F. F. Lee, Automatic Grapheme-to-Phoneme Translation of English

M. J. Nahvi and R. J. Shofer, Response of Cells in the Cerebellar Cortex to Clicks

A. V. Oppenheim, Deconvolution of Speech

M. L. Wiederhold and S. H. Swift, Electrical Stimulation of the Crossed Olivocochlear Bundle : Its Effect on Responses of Auditory-Nerve Fibers to Tone Bursts

Physics and Chemistry Departments Colloquium, University of South Carolina, Columbia, S.C.

April 21, 1967

C. H. Perry, Lattice Vibrations in SrTiO_3 and KTaO_3 (invited)

American Physical Society Meeting, Washington, D.C.

April 24-27, 1967

K. Chung and J. Small, Oscillations in the Hollow Cathode Arc Column

MEETING PAPERS PRESENTED (continued)

Sigma Xi Lecture, Brown University, Providence, Rhode Island

April 20, 1967

W. A. Rosenblith, Communications Engineering and the Brain Two Decades after Wiener's Cybernetics (invited)

Department of the Army, Durham, North Carolina

May 2, 1967

W. A. Rosenblith, The Brain Sciences and Their Relation to Communication and Computer Engineering (invited)

Eighth Annual IEEE Symposium on Human Factors in Electronics, Palo Alto, California

May 3-5, 1967

D. E. Troxel, Page Position Selection for Use with a Reading Machine for the Blind

International Symposium on Microwave Theory and Techniques (sponsored by IEEE PGMTT), Boston, Massachusetts

May 10, 1967

D. H. Steinbrecher, M. E. Goff, and A. H. Solomon, Iterative Synthesis of Varactor-Multiplier Microwave Networks

United Aircraft Research Laboratories Seminar, East Hartford, Connecticut

May 11, 1967

S. C. Brown, Machine Retrieval of Published and Unpublished Technical Literature (invited)

JOURNAL PAPERS ACCEPTED FOR PUBLICATION

(Reprints, if available, may be obtained from the Document Room, 26-327, Research Laboratory of Electronics, Massachusetts Institute of Technology, Cambridge, Massachusetts 02139.)

- R. J. Allen and A. H. Barrett, Absolute Measurements of the Radio Flux from Cassiopeia A and Taurus A at 3.64 and 1.94 Centimeters (Astrophys. J.)
- R. W. Brockett and H. B. Lee, Frequency-Domain Instability Criteria for Time-Varying and Nonlinear Systems (Proc. IEEE)
- S. K. Burns, A. A. Borbély, and R. D. Hall, Three-Dimensional Display for Evoked Potentials (Science)
- R. W. Cornew, J. C. Houk, and L. Stark, Fine Control in the Human Temperature Regulation System (J. Exptl. Biol.)
- T. H. Dupree, Nonlinear Theory of Drift Wave Turbulence and Enhanced Diffusion (Phys. Fluids)
- D. L. Fehrs and R. E. Stickney, Contact-Potential Measurements of the Adsorption of Cs, O₂, N₂, and H₂ on (110) Ta (Surface Sci.)

JOURNAL PAPERS ACCEPTED FOR PUBLICATION (continued)

- G. W. Grams and G. Fiocco, The Stratospheric Aerosol Layer during 1964 and 1965 (J. Geophys. Rev.)
- J. J. Guinan, Jr. and W. T. Peake, Middle-Ear Characteristics of Anesthetized Cats (J. Acoust. Soc. Am.)
- P. A. Kolers, Review of "Thinking : Studies of Covert Language Processes" by F. J. McGuigan (Appleton-Century Crofts, 1966) (Contemporary Psychology)
- R. L. Kyhl and B. D. Nageswara-Rao, Effect of Al²⁷ on Electron Cross Relaxation in Ruby (Phys. Rev.)
- W. S. McCulloch, Review of "The Memory System of the Brain" by J. Z. Young, University of California Press, Berkeley, 1966 (Computing Rev.)
- C. H. Perry, Jeanne H. Fertel, and T. F. McNelly, The Temperature Dependence of the Raman Spectrum of SrTiO₃ and KTaO₃ (J. Chem. Phys.)
- W. F. Pickard, Interpretation of Microelectrode Recordings from the Dorsal Root of Cat (Exptl. Neurol.)
- C. E. Shannon, R. G. Gallager, and E. R. Berlekamp, Lower Bounds to Error Probability for Coding on Discrete Memoryless Channels. II (Inform. Contr.)
- S. Yamamoto and R. E. Stickney, Analysis of "Lock-in" Detection of Modulated Beams Scattered from Solid Surfaces (J. Chem. Phys.)

LETTERS TO THE EDITOR ACCEPTED FOR PUBLICATION

- P. Penfield, Jr., Discussion on Distribution of Mechanical Forces in Magnetised Material and Evaluation of Magnetic Energy Density in Magnetised Matter (Proc. Inst. Elec. Engrs. (London))
- J. W. Riehl, J. L. Kinsey, and J. S. Waugh, Comments on the Bloom-Oppenheim Theory of Spin Relaxation (J. Chem. Phys.)
- M. L. Shaw and R. E. Stickney, Comment on the paper "Photoelectric Ion Emission from Cesium Surfaces" (Phys. Rev. Letters)

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, Massachusetts 02139)

445 Thomas G. Kincaid, Time-Domain Analysis of Impulse-Response Trains

TECHNICAL REPORTS PUBLISHED (continued)

- 449 Gerald B. Kliman, Axisymmetric Modes in Hydromagnetic Waveguide
- 457 Alan E. E. Rogers, The Haystack-Millstone Interferometer System
- 458 Thomas B. Smith, Plasma Cyclotron Echoes

SPECIAL PUBLICATIONS

- N. Chomsky, The General Properties of Language (Brain Mechanisms Underlying Speech and Language, Grune and Stratton, Inc., New York, 1967, pp. 73-88)
- P. Penfield, Jr., Thermodynamics of Frequency Conversion (Proc. Symposium on Generalized Networks, Polytechnic Press, Brooklyn, New York, 1967, pp. 607-619)
- A. E. E. Rogers and A. H. Barrett, Anomalous OH Absorption in the Direction of Cassiopeia A (Proc. IAU/URSI Symposium on Radio Astronomy and Galactic Systems, Noorwijk, Netherlands, August 24-September 1, 1966)
- R. E. Stickney, R. M. Logan, S. Yamamoto, and J. C. Keck, Simple Classical Model for the Scattering of Gas Atoms from a Solid Surface : III. Analyses for Monoenergetic Beams and Lock-in Detector Signals (Fundamentals of Gas-Surface Interactions, Academic Press, New York, 1967, pp. 422-434)
- J. S. Waugh, Nuclear Relaxation and Molecular Relaxation, in Molecular Relaxation Processes, Mansel Davies (ed.), Chemical Society Special Publication No. 20 (1966), pp. 113-124 (London and New York : Chemical Society and Academic Press, Inc. Ltd.)