

## PUBLICATIONS AND REPORTS

### MEETING PAPERS PRESENTED

Sixth International Conference on Medical Electronics and Biological Engineering, Tokyo, Japan

August 22-27, 1965

W. A. Rosenblith, Temporal Aspects of Sensory Processing (invited lecture)

Research Institute of Electrical Communication, Tohoku University, Sendai, Japan

August 31, 1965

W. A. Rosenblith, Coding of Stimulus Information in the Auditory System (invited lecture)

VIIth International Congress of Encephalography and Clinical Neurophysiology, sponsored by the Vienna Medical Academy, Vienna, Austria (Symposium for "Modern Trends in the Neurophysiological Investigation of Brain Diseases in Man")

September 5-10, 1965

J. S. Barlow and A. D. Weiss, Correlation Analysis of EEG-Tremor Relationships in Man.

Second IAES Conference on Plasma Physics and Controlled Nuclear Fusion Research, Abingdon, Berks., England

September 6-10, 1965

D. R. Rose, J. Kaplan, A. J. Impink, W. G. Homeyer, and L. M. Lontai, Analysis of Energy Recovery Blankets for Controlled Fusion Systems

L. D. Smullin and W. D. Getty, Characteristics of the Beam-Plasma Discharge

5<sup>ème</sup> Congrès International d'Acoustique, Liège, Belgium

September 7-14, 1965

J. M. Heinz and K. N. Stevens, On the Relations between Lateral Cineradiographs, Area Functions, and Acoustic Spectra of Speech

U. Ingard, Sound Waves in a Weakly Ionized Gas

International Symposium on Magnet Technology, Stanford University, Stanford, California

September 8-10, 1965

F. Bitter, Megagauss Magnets

International Colloquium on Mechanisms of Orienting Reaction, sponsored by the Slovak Academy of Sciences, Bratislava-Smolenice, Czechoslovakia

September 11-18, 1965

J. S. Barlow, Some Observations on Evoked Responses in Relation to Temporal Conditioning to Paired Stimuli in Man

U. S. -Japan Cooperation Seminar on Far Infrared Spectroscopy, Ohio State University, Columbus, Ohio

September 15-17, 1965

C. H. Perry, The Study of the Vibrations of Crystal Lattices by Far Infrared Spectroscopy

MEETING PAPERS PRESENTED (continued)

International Conference on Thermionic Electrical Power Generation, London  
September 20-24, 1965

D. R. Wilkins and E. P. Gyftopoulos, Transport Phenomena in Low-Energy Plasmas

Solid State Seminar, RCA Laboratories, Princeton, New Jersey  
September 30, 1965

A. Bers, Instabilities in Solid State Plasmas (invited)

Fall URSI-IEEE Meeting, Dartmouth College, Hanover, New Hampshire  
October 4-6, 1965

T. S. Huang, Optimum Scanning Direction in Television Transmission

Instrumental Society of America Annual Meeting, Los Angeles, California  
October 4-11, 1965

G. Fiocco, A Summary of Research with Optical Radars (invited)

Sixth Annual Symposium on Switching Circuit Theory and Logical Design, Ann Arbor, Michigan  
October 6-8, 1965

F. C. Hennie, Crossing Sequences and Off-Line Turing Machine Computations

Sixth Annual Scientific Meeting, Psychonomic Society, Chicago, Illinois  
October 14-16, 1965

P. A. Kolers, Figure Processes, Figural Aftereffects, and Space

Third Annual Allerton Conference on Circuit and System Theory, Monticello, Illinois  
October 20-22, 1965

T. S. Huang and W. H. Ku, Bounds on Impedance Functions, Revisited

H. B. Lee, More About Good and Bad Two-Element-Kind Structures

Gaseous Electronics Conference, University of Minnesota, Minneapolis, Minnesota  
October 20-22, 1965

J. C. Ingraham, Electron-Atom Collision Cross-Section Measurements in the Afterglow of a Pulsed Cesium Plasma

National Electronics Conference, Chicago, Illinois  
October 25-27, 1965

Y. W. Lee and M. Schetzen, Some Aspects of the Wiener Theory of Nonlinear Systems

Thermionic Conversion Specialist Conference, San Diego, California  
October 25-27, 1965

D. R. Wilkins and E. P. Gyftopoulos, Thermionic Converters Operating in the Ignited Mode. Part I: Theoretical Output Current Characteristics

D. R. Wilkins and E. P. Gyftopoulos, Thermionic Converters Operating in the Ignited Mode. Part II: Correlations of the Experimental Output Current Characteristics

MEETING PAPERS PRESENTED (continued)

Wiener Memorial Meeting, Genoa, Italy

October 26-29, 1965

W. S. McCulloch, Cones, Knots, Fronds, and Ions (invited)

American Speech and Hearing Association Annual Meeting, Chicago, Illinois

October 30-November 2, 1965

P. A. Kolers, Some Spatial and Temporal Functions in Dyslexia

Paula Menyuk, Linguistic Basis of Speech Perception and Production

Fall NEREM, Boston, Massachusetts

G. A. Brown, Liquid-Metal Magnetohydrodynamic Power Generation

W. D. Jackson, Plasma-MHD Power Generation

F. W. Scoville and T. S. Huang, The Subjective Effect of Spatial and Brightness Quantization in PCM Picture Transmission

W. Simon, The Use of a Small Computer in the Physiology Laboratory

Acoustical Society of America Fall Meeting, St. Louis, Missouri

November 3-6, 1965

T. H. Crystal, A Model of Larynx Activity during Phonation

R. S. Tomlinson, SPASS - An Improved Terminal Analog Speech Synthesizer

Division of Plasma Physics Seventh Annual Meeting, American Physical Society, San Francisco, California

November 8-11, 1965

A. Bers, C. E. Speck, and E. A. Robertson, Energy Aspects of Velocity-Space Instabilities

T. H. Dupree, Perturbation Theory for Turbulent Plasma

K. W. Gentle, Moving Striations in the Argon Positive Column

E. T. Gerry, Thomson Scattering Diagnostics of Hollow-Cathode Arc Plasmas

C. E. G. Hsi, Use of Cauchy Distribution in Calculating Collective Bremsstrahlung

L. M. Lidsky and R. W. Moir, Noadiabatic Injection and Diffusion in Toroidal Geometry

T. Musha and A. Bers, Electron-Phonon Instabilities in a Magnetic Field

J. J. Nolan and D. R. Whitehouse, Direct Coupling at Ion Cyclotron Resonance

J. G. Siambis, The First-Order Correction to the First Adiabatic Invariant

18th Annual Conference on Engineering in Medicine and Biology, Philadelphia, Pennsylvania

November 10-12, 1965

P. R. Gray, A Statistical Analysis of the Firing Patterns of Primary Auditory Neurons

MEETING PAPERS PRESENTED (continued)

American Nuclear Society Meeting, Washington, D. C.

November 15-18, 1965

S. H. Kyong and E. P. Gyftopoulos, Input-Output Approach to Optimal Control

Symposium on Electromagnetic Sensing of the Earth from Satellites, University of Miami, Coral Gables, Florida

November 22-24, 1965

W. B. Lenoir, Remote Sounding of the Atmospheric Temperature by Microwave Measurements

D. H. Staelin, Measurements and Interpretations of the Microwave Spectrum of the Terrestrial Atmosphere near 1-cm Wavelength

Division of Fluid Dynamics Annual Meeting, American Physical Society, Cleveland, Ohio

November 22-24, 1965

S. Sachs and W. D. Jackson, Pitot Tube Velocity Profile Measurements of Magnetohydrodynamic Development Lengths

American EEG Society Annual Meeting, New York City

November 30-December 1, 1965

J. S. Barlow and R. S. Schwab, Crosscorrelation Studies of Parkinson Tremor and Cerebellar Tremor in Relation to Electroencephalography and to the Degree of Synchrony in the Limbs of the Two Sides

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).

H. A. Baldwin, S. Frenk, and J. Y. Lettvin, Glass-Coated Tungsten Microelectrodes (Science)

H. H. Brown and J. G. King, Hyperfine Structures and Octopole Interaction in Stable Bromine Isotopes (Phys. Rev.)

G. Fiocco and G. Grams, Observations of the Upper Atmosphere by Optical Radar in Alaska and Sweden during the Summer 1964 (Tellus)

C. Freed and H. A. Haus, Photocurrent Spectrum and Photoelectron Counts Produced by a Gas Laser (Phys. Rev.)

C. W. Garland and C. F. Yarnell, Temperature and Pressure Dependence of the Elastic Constants of Ammonium Boride (J. Chem. Phys.)

C. W. Garland and R. Renard, Order-Disorder Phenomena III: Effect of Temperature and Pressure on the Elastic Constants of Ammonium Chloride (J. Chem. Phys.)

R. Geick, C. H. Perry, and S. Mitra, Lattice Vibrational Properties of Hexagonal CdSe (J. Appl. Phys.)

F. C. Hennie, On-Line Turing Machine Computations (IEEE Trans. (PTGEC))

T. S. Huang, PCM Picture Transmission (IEEE Spectrum)

JOURNAL PAPERS ACCEPTED FOR PUBLICATION (continued)

- G. B. Kliman and R. E. Rink, Terminal Properties of Alfvén Waveguides (J. Appl. Phys.)
- P. A. Kolers, Interlingual Facilitation of Short-term Memory (J. Verb. Learn. Verb. Behav.)
- S. Y. Kuroda, On the Particles ga, o, and ni (Kokagogaku)
- J. D. Macomber and J. S. Waugh, Theory of Sideband Production in Spectroscopic Experiments (Phys. Rev.)
- P. Penfield, Jr., Hamilton's Principle for Fluids (Phys. Fluids)
- H. J. Pauwels, Phase and Amplitude Fluctuations of the Laser Oscillators (IEEE Trans. (QE))
- C. H. Perry, R. Geick, and E. F. Young, Solid State Studies by Means of Fourier Transform Spectroscopy (Proc. IEEE)
- F. Rosebury, Minimizing Contamination for Vacuum (Vacuum Technology)
- J. M. Wozencraft and R. S. Kennedy, Modulation and Demodulation for Probabilistic Coding (IEEE Trans. (IT))

LETTERS TO THE EDITOR ACCEPTED FOR PUBLICATION

- A. Bers and A. L. McWhorter, Absolute Instabilities with Drifted Helicons (Phys. Rev. Letters)
- S. K. Burns and R. Melzack, A Method for Analyzing Variations in Evoked Responses (EEG Clin. Neurophysiol.)
- T. Musha and A. Bers, Stimulated Emission of Phonons by Electrons Drifting along the Magnetic Field (Phys. Rev. Letters)
- C. H. Perry and D. B. Hall, The Temperature Dependence of the Raman Spectrum of BaTiO<sub>3</sub> (Phys. Rev. Letters)
- D. S. Thompson, M. J. Stone, and J. S. Waugh, Vapor Pressures of Solutions of Europium and Ytterbium in Liquid Ammonia - Evidence of Hexammoniates (J. Phys. Chem.)
- D. S. Thompson, D. W. Schaefer, and J. S. Waugh, Electronic Spectra of Europium and Ytterbium in Liquid Ammonia (J. Inorg. Chem.)
- H. L. Van Trees, A Comparison of Optimum Angle Modulation Systems and Rate-Distortion Bounds (Proc. IEEE)
- S. Weinreb, M. L. Meeks, J. C. Carter, A. H. Barrett, and A. E. E. Rogers, Observations of Polarized OH Emission (Nature)

SPECIAL PUBLICATIONS

- J. S. Barlow, Some Observations on Evoked Responses in Relation to Temporal Conditioning to Paired Stimuli in Man (Proc. International Colloquium on Mechanisms of Orienting Reaction in Man, Smolenice and Bratislava, Czechoslovakia, September 11-15, 1965)

SPECIAL PUBLICATIONS (continued)

- Y. W. Lee and M. Schetzen, Some Aspects of the Wiener Theory of Nonlinear Systems (Proc. National Electronics Conference 1965, Vol. 21)
- J. Y. Lettvin and R. C. Gesteland, Speculations on Smell (Cold Spring Harbor Symposia on Quantitative Biology, Cold Spring Harbor, New York)
- R. E. Stickney, Qualitative Considerations of Energy Accommodation for Clean Surfaces and Adsorbed Monolayers (Rarefied Gas Dynamics, Vol. 2, Academic Press, Inc., New York)