

PUBLICATIONS AND REPORTS

MEETING PAPERS PRESENTED

University of Michigan Summer Session Conference, Ann Arbor, Michigan
August 4-15, 1969

D. H. Steinbrecher and R. E. Snyder, A Fundamental Limit on Intermodulation Distortion in a Broadband Doubly Balanced Modulator

Molecular Spectroscopy and Structure Symposium, Ohio State University, Columbus, Ohio

September 2-6, 1969

Jeanne H. Fertel and C. H. Perry, Raman Spectra of Alkali Halides and Some of Their Mixed Crystals

J. F. Parrish and C. H. Perry, Measuring Uniaxial Spectral Dielectric Response: Applications to Calcite CaCO_3 and Tysonite LaF_3

Alumni Seminar, Massachusetts Institute of Technology, Cambridge, Massachusetts
September 8, 1969

W. M. Siebert, The Impact of New Technology on Medical Education (invited)

Nuclear Fusion Reactor Conference, United Kingdom Atomic Energy Authority, Culham Laboratory, Abingdon, Berkshire, England

September 17-19, 1969

D. J. Rose, G. L. Flint, Jr., and F. B. Marcus, Some Topics on Pulsed Systems and Mirrors

9th International Congress of Neurology / 4th International Congress of Neurological Surgery, New York

September 20-27, 1969

J. S. Barlow and R. S. Schwab, Mutual Stabilization of Upper Limbs in Relation to Tremor Synchrony in Parkinson's and Familial Tremor

A. D. Weiss and J. S. Barlow, Compensatory Eye Movements in a Bárány Chair: Effect of Visual Cues, Eye Closure, Attention, and Vestibular Disease

IEEE Ultrasonic Symposium, St. Louis, Missouri

September 24-26, 1969

C. Krischer, Ultrasonic Attenuation Measurements in Fused Silica Using Bragg Diffraction

Feedback Meeting, Veterans' Administration Hospital, Santa Monica, California

October 22, 1969

E. Peper, Physiological Foundations of Unusual Experience as Represented in the Electroencephalogram

E. Peper, Regulation of the Electroencephalogram through Internal and External Parameters

AVS Surface Science Symposium, Seattle, Washington

October 29-31, 1969

R. E. Stickney, A Review of the Interaction of Neutral Molecules with Solid Surfaces

MEETING PAPERS PRESENTED (continued)

California State Department of Education's Language Special Study Institute,
San Diego, California

November 1-3, 1969

Paula Menyuk, Language Acquisition : Normal and Deviant

General Electric Company, Saratoga Springs, New York

November 4-5, 1969

W. M. Siebert, Modern Engineering Course (invited lectures)

Seventy-eighth Meeting, Acoustical Society of America, San Diego, California

November 4-7, 1969

B. A. Blesser, The Inadequacy of a Spectral Description in Relation to
Speech Perception

L. D. Braida, Absolute Identification of Sound Intensity : Dependence of
Observer Sensitivity on Range and Number of Stimuli

H. S. Colburn, Model of Binaural Hearing Based on Auditory-Nerve Patterns

D. H. Klatt, Synthesis of Stop Consonants in Initial Position

J. I. Makhoul, Speaker-Machine Interaction in a Limited Speech Recognition
System

M. Medress, An Approach to the Computer Recognition of Single-Syllable
English Words

H. Suzuki, A Mutually Complementary Effect of the Rate and the Amount of
Formant Transition in Distinguishing Vowel, Semi-vowel, and Stop Consonant

J. J. Wolf, A Simulation of the Measurement Phase of an Automatic Speaker
Recognition System

NEREM, Boston, Massachusetts

November 5-7, 1969

O. J. Tretiak, Pattern Recognition and Waveform Analysis

American Speech and Hearing Association Conference, Chicago, Illinois

November 11-14, 1969

P. Menyuk, Should Black Children Be Taught White Dialect : Who Should
Make the Decision ?

T. H. Shriner and G. Schuckers, Reassembly of Segmental Sentences by
Children

Division of Plasma Physics, American Physical Society, Annual Meeting,
Los Angeles, California

November 12-15, 1969

R. A. Blanken, N. H. Lazar, and W. J. Hermann, Low Density Instability
in a Hot-Electron Plasma

R. J. Briggs and Y. Y. Lau, Effects of Cold Plasma on the Negative-Mass
Instability of a Relativistic Electron Layer

T. H. Dupree, Time and Space Correlations Due to Resonant Particle
Scattering

MEETING PAPERS PRESENTED (continued)

- M. Hudis and L. M. Lidsky, Observation of a Centrifugally Driven $E \times B$ Flute in a Hollow-Cathode Discharge
- W. M. Manheimer, A Strong Turbulence Theory of Stochastic Acceleration, Nonlinear Stabilization, and Harmonic Generation
- M. Murakami and L. M. Lidsky, Wave-Particle Interactions in Interpenetrating Beams
- C. Oddou and B. L. Wright, Anomalous Cyclotron Radiation
- P. A. Politzer, Behavior of the Collisionless Drift Instability
- C. E. Speck and R. J. Briggs, Electron Cyclotron Instabilities Driven by Hot Electrons in a Magnetic Mirror
- D. W. Swain, The Relation between Ion Acoustic Waves and Moving Striations in a Low-Pressure Discharge
- C. E. Wagner and L. M. Lidsky, Experimental Observations of Microinstabilities in a Hot-Electron Plasma

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)

- G. D. Bernard and W. H. Miller, What Does Antenna Engineering Have to Do with Insect Eyes? (IEEE Student J.)
- R. H. Bolt, F. S. Cooper, E. E. David, Jr., P. B. Denes, J. M. Pickett, and K. N. Stevens, Identification of a Speaker by Speech Spectrograms (Science)
- P. Doherty and A. Schwartz, The Syntax of the English Comparative (Language)
- D. L. Flannery and S. C. Brown, Alternating Current Diagnostic Study of Diffusion in a Highly Ionized Plasma in a Magnetic Field (Phys. Fluids)
- J. S. Gruber, Look and See (Language)
- R. D. Hall and A. A. Borbély, Acoustically Evoked Potentials in the Rat during Sleep and Waking (Exp. Brain Res.)
- K. R. Ingham, A Speech Read-only Memory Store for Blind Programmers (IEEE Trans. (BME))
- P. G. Katona and G. Octo Barnett, Central Origin of Asymmetry in the Carotid Sinus Reflex (Ann. N. Y. Acad. Sci.)
- J. A. Kong, Quantization of Electromagnetic Radiation Fields in Moving Uniaxial Media (J. Appl. Phys.)
- F. F. Lee, Reading Machine : From Text to Speech (IEEE Trans. (AU))
- T. J. Lee, Effect of Temperature on the Work-Function Minimum of Cesium Tungsten Surfaces (J. Appl. Phys.)
- R. P. Lowndes, Influence of Lattice Anharmonicity on the Longitudinal Optic Modes of Cubic Ionic Solids (Phys. Rev.)

JOURNAL PAPERS ACCEPTED FOR PUBLICATION (continued)

- P. G. Mezger, T. L. Wilson, F. F. Gardner, and D. K. Milne, A Comparison of the Radial Velocities of the Neutral Hydrogen Gas and H II Regions within 60 Degrees of the Galactic Center (Astron. Astrophys.)
- J. Nolte and J. E. Brown, The Spectral Sensitivities of Single Cells in the Median Ocellus of Limulus (J. Gen. Physiol.)
- D. J. M. Poussart, Nerve Membrane Current Noise : Direct Measurements under Voltage Clamp (Proc. Natl. Acad. Sci. (U.S.))
- R. M. Price, Survey of the South Celestial Polar Region at 408 MHz (Astron. J.)
- D. E. Pritchard, Interpretation of Interference Structure in Elastic Scattering Using the Semi-Classical Action (Phys. Rev.)
- J. T. Pinkston, An Application of Rate-Distortion Theory to a Converse to the Coding Theorem (IEEE Trans. (IT))
- E. C. Reifstein III, T. L. Wilson, B. F. Burke, P. G. Mezger, and W. Altenhoff, A Survey of H 109a Recombination Line Emission in Galactic H II Regions of the Northern Sky (Astron. Astrophys.)
- T. H. Shriner and R. G. Daniloff, Reassembly of Segmented CVC Syllables by Children (J. Speech Hearing Res.)
- W. M. Siebert, Frequency Discrimination in the Auditory System : Place or Periodicity Mechanisms ? (Proc. IEEE)
- R. E. Stickney, A Review of the Interaction of Neutral Molecules with Solid Surfaces (Abstract) (J. of Vacuum Sci. and Technology)
- P. D. Wall, J. Freeman, and D. Major, Dorsal Horn Cells in Spinal and in Freely Moving Rats (Exptl. Neurol.)

LETTERS TO THE EDITOR ACCEPTED FOR PUBLICATION

- B. Blesser, Ultra-linear Transistor Configuration under Conditions of Minimal Power Supply Drain Current (IEEE J. (SSC))
- B. F. Burke, On the Quantum Interference Paradox (Nature)
- Jeanne H Fertel, Silicon Monoxide Bands in Some Low-Temperature Stars (Astrophys. J. (Letter))
- G. A. Garosi, G. Bekefi, and M. Schulz, Anomalous Diffusion and Resistivity of a Turbulent, Weakly Ionized Plasma (Appl. Phys. Letters)
- J. I. Glaser, Use of the Lorentz Reciprocity Theorem for the Design and Evaluation of Feeds for Reflectors (IEEE Trans. (AF))
- L. W. Schaper, Jr., D. H. Staelin, and J. W. Waters, The Estimation of Atmospheric Electrical Path Length by Passive Microwave Radiometry (Proc. IEEE)
- N. E. Tornberg and C. H. Perry, A Variable Temperature (8-400°K) Gas Transfer Cell for Solid-State Spectroscopy (Appl. Opt.)

TECHNICAL REPORTS PUBLISHED

(This 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)

471 Edward A. Bucher, Error Mechanisms for Convolutional Codes

SPECIAL PUBLICATIONS

- W. P. Allis, Nonlinear, Collisionless, Plasma Waves, in In Honor of Philip M. Morse, Herman Feshbach and K. Uno Ingard (eds.) (The M. I. T. Press, Cambridge, Mas., 1969), pp. 21-42
- B. F. Burke, Radio Studies of Galactic Structures, in Contemporary Physics, Vol. I, pp. 401-416 (International Atomic Energy Agency, Vienna, 1969)
- J. E. Brown and C. E. Holt, Potassium Flux Changes in Response to Light in Limulus Ventral Eye Photoreceptors (Abstracts of the Third International Congress of the International Union for Pure and Applied Biophysics, M. I. T., Cambridge, Mass., August 29 - September 3, 1969, p. 91)
- S-H. Chung, S. A. Raymond, and J. Y. Lettvin, Multiple Meanings in Single Visual Units (Brain, Evolution, and Behavior, International Symposium on Subcortical Vision, Massachusetts Institute of Technology, Cambridge, Massachusetts, June 24, 1969)
- J. A. Davis and A. Bers, Nonlinear Aspects of the Beam-Plasma Interaction (Proc. Symposium on Turbulence of Fluids and Plasmas, Polytechnic Institute of Brooklyn, April 16-18, 1968, pp. 87-108)
- G. Fiocco, Application of Laser Radars to the Study of the Atmosphere, in Aerospace Measurement Techniques, Symposium held at M. I. T., Cambridge, Mass., 7-8 July 1966, G. G. Manella (ed.) (NASA SP-132, National Aeronautics and Space Administration, Washington, D.C. and Electronics Research Center, Cambridge, Mass., 1967, pp. 123-131)
- C. E. Holt and J. E. Brown, An Effect of Light on ^{42}K Efflux from Limulus Ventral Eye (Abstract) (Fed. Proc., Vol. 28, No. 2, p. 332, March-April 1969)
- Bradford Howland and Stephen Jay Wiesner, United States Patent Office 3,479,744 CONVERTIBLE TORSION MEASURE Patented Nov. 25, 1969
- P. G. Katona, G. Octo Barnett, and W. D. Jackson, Computer Simulation of the Blood Pressure Control of the Heart Period (in Baroreceptors and Hypertension, P. Kezdi (ed.), Dayton, Ohio, 1965, pp. 191-199)
- K. J. Muller and J. E. Brown, Crayfish Retinular Cells : Mechanisms of Generating the Receptor Potential (Abstracts of the Third International Congress of the International Union for Pure and Applied Biophysics, M. I. T., Cambridge, Mass., August 29 - September 3, 1969, p. 261)

