

PUBLICATIONS AND REPORTS

MEETING PAPERS PRESENTED

IEEE Arden House Workshop on Digital Filtering, Harriman, New York

January 9-12, 1972

R. M. Mersereau, Reconstruction of Multidimensional Signals from Their Projection

Florence Seminar on Digital Filtering, Florence, Italy

September 21-22, 1972

C. Braccini and A. Oppenheim, Applications of Digital Frequency Warping to Unequal Resolution and Vernier Spectrum Analysis

Symposium on Atmospheric Acoustics and Noise Propagation, Gaithersburg, Maryland

September 27-29, 1972

U. Ingard, Interaction of Sound and Fluid Flow

Eighth International Symposium on Remote Sensing of the Environment, University of Michigan, Ann Arbor, Michigan

October 2-6, 1972

J. W. Waters, Remote Sensing of Atmospheric O_3 and H_2O to 70 km from Aircraft Measurements of Radiation at 1.64 mm Wavelength

25th Annual Conference on Engineering in Medicine and Biology, Bal Harbor, Florida

October 4, 1972

W. M. Siebert, The Future of Training in Biomedical Engineering (invited)

10th Annual Allerton Conference on Circuit and System Theory, Monticello, Illinois

October 4-6, 1972

R. M. Mersereau, The Digital Reconstruction of Multidimensional Signals from Their Projections

1972 IEEE Ultrasonics Symposium, Boston, Massachusetts

October 4-7, 1972

J. H. Cafarella and A. Bers, Surface Mobility on Silicon from Acoustoelectric Current Measurements

Twenty-fifth Annual Gaseous Electronics Conference with Symposia on Arcs and Gaseous Plasma Lasers, University of Western Ontario, London, Ontario, Canada

October 17-20, 1972

W. P. Allis and H. A. Haus, Electron Distribution and Lasing Efficiency of Vibrationally Excited Diatomic Gas Laser

S. C. Brown, The First Two Hundred Years of Gaseous Electronics

Systems, Man and Cybernetics Group of IEEE, Massachusetts Institute of Technology, Cambridge, Massachusetts

October 19, 1972

T. R. Willemain, Use of Operations Research in the Planning of Telemedicine

MEETING PAPERS PRESENTED (continued)

Physics Department Colloquium, Rensselaer Polytechnic Institute, Troy, New York
October 25, 1972

W. M. Siebert, Physical Limitations on Auditory Performance (invited)

Symposium on Basic Mechanisms in Hearing, Royal Academy of Sciences, Stockholm,
Sweden

October 30 - November 1, 1972

N. Y. S. Kiang, D. K. Morest, D. A. Godfrey, J. J. Guinan, Jr., and E. C. Kane, Stimulus Coding at Caudal Levels of the Cat's Auditory Nervous System. I. Response Characteristics of Single Units. II. Patterns of Synaptic Organization

NEREM '72, Boston, Massachusetts

November 1-3, 1972

B. Blesser and I. T. Young, Interdisciplinary Problems in Bio-medical Engineering

Division of Plasma Physics Meeting, American Physical Society, Monterey, California

November 13-16, 1972

B. H. Hui and T. H. Dupree, Computer Experiments on "Clump" Formation in Plasma

Y. Y. Lau and R. J. Briggs, Evolution of Unstable Wave Packets in an Inhomogeneous Plasma

P. A. Politzer, Low-Frequency Instabilities in a Linear Quadrupole

Conference on the Plasma Proteins and Cellular Elements of the Blood, Center for Blood Research, Boston, Massachusetts

November 16-17, 1972

R. G. Mark, New Systems for Providing Remote Medical Care

84th Meeting, Acoustical Society of America, Miami Beach, Florida

November 28 - December 1, 1972

H. Duifhuis, Implications of Peripheral Frequency Selectivity for Non-Simultaneous Masking

A. W. F. Huggins, More Temporally Segmented Speech

D. H. Klatt, Durational Characteristics of Prestressed Word-Initial Consonant Clusters in English

K. N. Stevens, Further Theoretical and Experimental Bases for Quantal Places of Articulation for Consonants

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)

J. E. Berliner and N. I. Durlach, Intensity Perception. IV. Resolution in Roving-Level Discrimination (J. Acoust. Soc. Am.)

R. Boscaino, M. Brai, I. Ciccarello, and M. W. P. Strandberg, Effect of a Strong Radio-Frequency Field on the Transverse Relaxational Time in Paramagnetic Solids (Phys. Rev.)

JOURNAL PAPERS ACCEPTED FOR PUBLICATION (continued)

- J. E. Brown and J. E. Lisman, An Electrogenic Sodium Pump in Limulus Ventral Photoreceptor Cells (J. Gen. Physiol.)
- B. F. Burke, K. J. Johnston, V. A. Efanov, B. G. Clark, L. R. Kogan, V. I. Kostenko, K. Y. Lo, L. I. Matveenko, I. G. Moiseev, J. M. Moran, S. H. Knowles, D. C. Papa, G. D. Papadopoulos, A. E. E. Rogers, and P. R. Schwartz, Observations of Maser Radio Sources with an Angular Resolution of $0^{\circ}0002$ (Soviet Astronomy – AJ.)
- R. H. Cohen, B. Coppi, and A. Treves, Magnetic Field in the Plasmasphere of a Compact Star (Nuovo Cimento)
- R. H. Cohen, B. Coppi, and A. Treves, Magnetic Configuration in the Neighborhood of a Collapsed Star (Astrophys. J.)
- D. F. Dickinson, K. P. Bechis, and A. H. Barrett, New H₂O Sources Associated with Infrared Stars (Astrophys. J.)
- H. F. Dylla and J. G. King, Neutrality of Molecules by a New Method (Phys. Rev. A)
- P. Elias, A Note on the ϵ -Entropy of Monotone Functions in the Levy Norm (Advances in Mathematics)
- R. Gallager, The Random Coding Bound Is Tight for the Average Code (IEEE Trans. (IT))
- R. E. Greenwood, The Visibility of Structured and Unstructured Images (J. Opt. Soc. Am.)
- R. G. Griffin, J. D. Ellett, Jr., M. Mehring, J. G. Bullitt, and J. S. Waugh, Single Crystal Study of the ^{19}F Shielding Tensors of a Trifluoromethyl Group (J. Chem. Phys.)
- H. A. Haus, Equivalent Circuit Analysis of Noise in Bulk Semiconductor Devices (IEEE Trans. (ED))
- F. H. Ives, A Noise Reduction System: Dynamic Spectral Filtering (J. Audio Eng. Soc.)
- J. E. Lisman and J. E. Brown, The Effects of Intracellular Iontophoretic Injection of Calcium and Sodium Ions on the Light Response of Limulus Ventral Photoreceptors (J. Gen. Physiol.)
- K. Y. Lo, J. Spencer, P. C. Crane, and B. F. Burke, High-Frequency Observations of the Second Flare in Cygnus X-3 (Nature)
- R. M. Price, Brightness Temperatures in the Southern Sky at 408 MHz (Astron. J.)
- J. E. Robinson and L. M. Lidsky, Identification of Transverse Kelvin-Helmholtz Turbulence in a Magnetoplasma Column (Can. J. Phys.)
- P. W. Rosenkranz and D. H. Staelin, Microwave Emissivity of Ocean Foam and Its Effect on Nadiral Radiometric Measurements (J. Geophys. Res.)
- J. J. Wolf, Efficient Acoustic Parameters for Speaker Recognition (J. Acoust. Soc. Am.)

LETTERS TO THE EDITOR ACCEPTED FOR PUBLICATION

- B. E. Burke and A. Bers, The Effect of Inhomogeneities in Acoustic Surface Wave Amplification (Appl. Phys. Letters)
- B. Coppi, Electron Fluctuations and Transport in Toroidal Plasmas (Phys. Rev. Letters)
- H. A. Haus, J. A. Kong, and P. L. Penfield, Jr., Mr. Brevik's Remarks on the Principle of Virtual Power (Nuovo Cimento)

SPECIAL PUBLICATIONS

- B. Blesser and I. T. Young, Interdisciplinary Problems in Bio-medical Engineering (NEREM '72 Record)
- E. V. Hoversten and D. L. Snyder, Receiver Processing for Direct-Detection Optical Communication Systems (Proc. International Conference on Communications, Philadelphia, Pennsylvania, June 19-21, 1972), pp. 4-21 - 4-24
- J. G. King and J. C. Weaver, Molecular Microscopy, Chap. VI in H. E. Stanley (Ed.), Biomedical Physics and Biomaterials Science (The M.I.T. Press, Cambridge, Mass., 1972), pp. 103-120
- K. N. Stevens, The Quantal Nature of Speech: Evidence from Articulatory-Acoustic Data, Chap. III in P. B. Denes and E. E. David, Jr. (Eds.), Human Communication, A Unified View (McGraw-Hill Book Company, New York, 1972), pp. 51-66
- K. N. Stevens, Segments, Features, and Analysis by Synthesis - A Discussion of Cooper's Paper, in J. F. Kavanaugh and I. G. Mattingly (Eds.) Language by Eye and by Ear, The Relationships Between Speech and Reading (The M.I.T. Press, Cambridge, Mass., 1972), pp. 47-55
- K. N. Stevens, Sources of Inter- and Intra-Speaker Variability in the Acoustic Properties of Speech Sounds (Proc. VII International Congress of Phonetic Sciences, Montreal, Canada, August 21-28, 1971)
- K. P. Wacks, Psychophysical Considerations in the Design of an Image Transmission System (Proc. IEEE National Telecommunications Conference, Houston, Texas, December 4-6, 1972)
- J. W. Waters, Remote Sensing of Atmospheric O₃ and H₂O to 70 km from Aircraft Measurements of Radiation at 1.64 mm Wavelength (Proc. Eighth International Symposium on Remote Sensing of the Environment, University of Michigan, Ann Arbor, October 2-6, 1972)