

PUBLICATIONS AND REPORTS

MEETING PAPERS PRESENTED

The 1970 Sixth International Quantum Electronics Conference, Kyoto, Japan
September 7-10, 1970

- H. Granek, C. Freed, and H. A. Haus, Experiment on Crossrelaxation in CO₂
- H. A. Haus, Steady State Quantum Analysis of Open Linear Systems
- P. W. Hoff, H. A. Haus, and T. J. Bridges, Observation of Optical Nutation in a CO₂ Laser Amplifier
- D. L. Lyon, E. V. George, and H. A. Haus, Observation of Spontaneous Mode Locking in a High-Pressure CO₂ Laser

International Congress on the Education of Teachers of Physics in Secondary Schools (sponsored by the International Commission on Physics Education of the International Union of Pure and Applied Physics), Eger, Hungary
September 16, 1970

- M. W. P. Strandberg, Technology in Education (invited)

Symposium on Feature Extraction and Selection in Pattern Recognition, Argonne National Laboratory, Argonne, Illinois
October 5-7, 1970

- J. Makhoul, Speaker Adaptation in a Limited Speech Recognition System

Thirty-eighth Annual Meeting, Engineers' Council for Professional Development, Cleveland, Ohio
October 6, 1970

- W. M. Siebert, New Dimensions in Engineering Education and Accreditation Implications : Biomedical Engineering (invited)

International Colloquium on "Oculomotor System and Brain Functions," Slovak Academy of Sciences, Bratislava, Czechoslovakia
October 19-22, 1970

- E. Peper, Alpha Feedback, Attention, and the Oculomotor System

1970 IEEE Ultrasonics Symposium, San Francisco, California
October 21-23, 1970

- A. Bers, Interactions between Acoustic Surface Waves and Electrons in Solids (invited)
- C. Krischer and A. Bers, Observation of Resonant Amplification of Acoustic Surface Waves by Electron Surface Waves in a Magnetic Field

Twenty-third Annual Gaseous Electronics Conference, Hartford, Connecticut
October 21-23, 1970

- L. D. Pleasance and E. V. George, Microwave Density Measurements in Ion Laser Plasmas

Conference on Late Type Stars, Kitt Peak National Observatory, Tucson, Arizona
October 27-29, 1970

- P. R. Schwartz and A. H. Barrett, Water-Vapor Microwave Emission from Variable Stars

MEETING PAPERS PRESENTED (continued)

General Electric Company, Saratoga Springs, New York

October 28-30, 1970

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

Pennsylvania State University, State College, Pennsylvania

October 29, 1970

U. Ingard, Acoustics and Light Scattering (invited)

80th Meeting, Acoustical Society of America, Houston, Texas

November 3-6, 1970

D. H. Klatt and V. W. Zue, JND's for Selected Aspects of Synthetic Fundamental Frequency Contours

NEREM, Boston, Massachusetts

November 4-6, 1970

J. Allen, Speech Synthesis Directly from Text (invited)

S. K. Burns, Displays for Electrophysiologic Data

T. S. Huang, Some Considerations on Two-Dimensional Digital Filtering

R. G. Mark, Telecommunications and Health Care

Division of Plasma Physics Meeting, American Physical Society, Washington, D.C.

November 4-7, 1970

A. Bers and L. D. Pleasance, Electron Plasma Surface Waves in Crossed Fields

A. Bers, W. M. Manheimer, and B. Coppi, A Model for the Observed Ion Heating in Tokamak TM3

A. J. Cohen and G. Bekefi, Nonlinear Response of an Antenna Immersed in a Collisionless Plasma

T. H. Dupree, The Formation of Plasma Macroparticles and Holes

A. Ferrari and B. Coppi, High-Energy Emission Processes for Pulsars and X Stars

R. W. Flynn and W. M. Manheimer, On the Stabilization of Instabilities by Mode Coupling

E. V. George and G. Bekefi, Time and Space Resolved Spectroscopy of Laser Produced Plasma

E. V. George, G. Bekefi, and B. Ya'Akobi, Studies of Forbidden Optical Transitions in a Dense Lithium Plasma

W. M. Manheimer, Instabilities in a Plasma Coexisting with a Large Amplitude Wave

L. P. Mix, Jr., L. N. Litzenberger, and G. Bekefi, Damping of Ion Acoustic Waves in a Highly Ionized Plasma

R. R. Parker and Y. Ayasli, Measurement of Wave-Number Spectra of the Density Fluctuations in a Plasma Using Frequency-Scanned Arrays

J. E. Robinson, E. Oktay, and L. M. Lidsky, Microwave Plasma Experiment

J. A. Rome and R. J. Briggs, The Stability of an Electron Stream with Velocity Shear

MEETING PAPERS PRESENTED (continued)

F. Santini, B. Coppi, and M. Dobrowolny, Anomalous Plasma Resistivity at Supercritical Electric Fields

Conference on Engineering in Medicine and Biology, Washington, D.C.

November 15-19, 1970

J. E. Bowie, Differential Leukocyte Classification Using an Optical Processing System

American Speech and Hearing Association Convention, New York

November 20-23, 1970

Paula Menyuk, Current and Needed Preparation of Language Therapists

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. B. Anderson and T. S. Huang, Piecewise Fourier Transformation for Picture Bandwidth Compression (IEEE Trans. (COM))

B. F. Burke, J. M. Moran, A. H. Barrett, O. Rydbeck, B. Hansson, A. E. E. Rogers, J. J. Ball, and D. D. Cudaback, Size of the Anomalous OH Emission Sources (Abstract) (Astron. J.)

B. Coppi and E. Mazzucato, Anomalous Plasma Resistivity at Low Electric Fields (Phys. Fluids)

R. W. Flynn, Particle Diffusion in Turbulent Electric Fields (Phys. Fluids)

M. Halle, Is Kabardian a Vowel-less Language? (Foundations of Language)

R. S. Kennedy, Communication through Optical Scattering Channels : An Introduction (Proc. IEEE)

J. I. Makhoul, Speaker Adaptation in a Limited Speech Recognition System (IEEE Trans. (Computers - Special Issue))

W. M. Manheimer, Strong Turbulence Theory of Nonlinear Stabilization and Harmonic Generation (Phys. Fluids)

W. M. Manheimer, Instabilities in a Plasma Coexisting with a Large-Amplitude Wave (Phys. Rev.)

J. C. Moldon, High Resolution Image Estimation in a Turbulent Environment (Pattern Recognition)

T. B. Mulholland and E. Peper, Occipital Alpha and Accommodative Vergence, Pursuit Tracking and Fast Eye Movements (Psychophys.)

G. M. Robbins, Image Restoration for a Class of Linear Spatially Variant Degradations (Pattern Recognition)

P. R. Schwartz and A. H. Barrett, Water-Vapor Microwave Emission from Variable Stars (Abstract) (Bull. Am. Astron.)

JOURNAL PAPERS ACCEPTED FOR PUBLICATION (continued)

T. L. Wilson, P. G. Mezger, F. F. Gardner, and D. K. Milne, A Survey of H 109 α Recombination Line Emission in Galactic HII Regions of the Southern Sky (Astron. Astrophys.)

LETTERS TO THE EDITOR ACCEPTED FOR PUBLICATION

M. S. Ewing, R. A. Batchelor, R. D. Friefeld, R. M. Price, and D. H. Staelin, Observations of Pulsar Spectra (Astrophys. J. Letters)

D. C. Galehouse, U. Ingard, T. J. Ryan, and S. Ezekiel, Investigations of Coherent Oscillations in an Argon-Ion Plasma Tube (Appl. Phys. Letters)

P. G. Mezger, T. L. Wilson, F. F. Gardner, and D. K. Milne, 6-cm Recombination Line Observations of the 30 Doradus Nebula (Astrophys. Letters)

D. K. Milne, T. L. Wilson, F. F. Gardner, and P. G. Mezger, Recombination Lines in Thermal and Nonthermal Galactic Sources (Astrophys. Letters)

T. L. Wilson, P. G. Mezger, F. F. Gardner, and D. K. Milne, H 109 α Recombination Line Measurements of the W51 Region (Astrophys. 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)

480 John I. Makhoul, Speaker-Machine Interaction in Automatic Speech Recognition

481 George D. Papadopoulos, Ku-band Interferometry

SPECIAL PUBLICATIONS

J. Allen, Speech Synthesis Directly from Text (NEREM 70 Record, Boston, Mass.) pp. 152-153

S. K. Burns, Displays for Electrophysiologic Data (NEREM 70 Record, Boston, Mass.)

N. Chomsky, Remarks on Nominalization, in Roderick A. Jacobs and Peter S. Rosenbaum (eds.), Readings in English Transformational Grammar (Ginn and Company, Waltham, Mass., 1970), pp. 184-221

N. Chomsky, Deep Structure, Surface Structure, and Semantic Interpretation, in R. Jakobson and S. Hattori (eds.), Studies in General and Oriental Languages (TEC Company, Ltd., Tokyo, Japan, 1970), pp. 52-91

T. S. Huang, Some Considerations on Two-Dimensional Digital Filtering (NEREM 70 Record, Boston, Mass.)

P. A. Kolers, Eye-Voice Span or Response Bias ? (in Perception of Language, University of Pittsburgh Press, Pittsburgh, Pennsylvania)

D. Kleppner, New Molecules for Molecular Beams (Proc. Second International Conference on Atomic Physics, Oxford University, July 1970)

SPECIAL PUBLICATIONS (continued)

- D. Kleppner, The Proton Moment in Bohr Magnetons – And All That (Proc. First International Conference on Precision Measurements and Fundamental Constants, Gaithersberg, Maryland, August 1970)
- M. Halle, Markedness, In Proc. Sixth International Congress of Phonetic Sciences, Prague, 1970 (Academia Publishing House of the Czechoslovak Academy of Sciences, Prague, 1970), pp. 61-72
- M. Halle, A. Note on the Accentual Patterns of the Russian Nominal Declension, in R. Jakobson and Shigeo Kawamoto (eds.), Studies in General and Oriental Languages (TEC Company, Ltd., Tokyo, Japan, 1970), pp. 167-174
- A. V. Oppenheim, Digital Signal Processing, Today and Tomorrow (Digest of Technical Papers – 1970 IEEE International Symposium on Circuit Theory, December 14-16, 1970)
- J. R. Ross, On Declarative Sentences, in Roderick Jacobs and Peter S. Rosenbaum (eds.), Readings in English Transformational Grammar (Ginn and Company, Waltham, Mass., 1970)
- J. R. Ross, Gapping and the Order of Constituents, in M. Bierwisch and K. E. Heidolph (eds.), Progress in Linguistics (Mouton and Co. n. v., The Hague)
- P. R. Schwartz and A. H. Barrett, Water-Vapor Microwave Emission from Variable Stars (Proc. Conference on Late Type Stars, Kitt Peak National Observatory, 27-29 October 1970)
- D. H. Staelin, Recent Pulsar Observations (Convegno : Radiosorgenti pulsate e attivita' di alta energia nei resti di Supernovae. Accademia Nazionale dei Lincei, Roma, 1970)
- D. H. Staelin, Models for Pulsar Radio Emission (Convegno : Radiosorgenti pulsate e attivita' di alta energia nei resti di Supernovae. Accademia Nazionale dei Lincei, Roma, 1970)
- R. E. Stickney, Low-Energy Molecular Scattering as a Tool for Studying Gas-Solid Interaction Potentials : Comparison of Theory and Experiment, in Gabor A. Somorjai (ed.), The Structure and Chemistry of Solid Surfaces (John Wiley and Sons, Inc., New York, 1969), pp. 41-1 – 41-25
- R. N. Wallace and A. Bers, Microwave Emission from N-InSb at 77° K (Proc. Tenth International Conference on the Physics of Semiconductors, Cambridge, Mass., August 17-21, 1970)
- W. J. Wilson and A. H. Barrett, Properties of OH Emission Associated with Infrared Stars (Proc. Conference on Late Type Stars, Kitt Peak National Observatory, 27-29 October 1970)