

## PUBLICATIONS AND REPORTS

### Meeting Papers Presented

Symposium on the Theory of Electromagnetic Waves, New York University, June 8, 1950

R. B. Adler: Waves on Inhomogeneous Cylindrical Structures

M. V. Cerrillo: Evolution of Integral Associated with Wave Motion in Dispersive Media

Tenth Annual Conference on Physical Electronics, Massachusetts Institute of Technology, March 30 to April 1, 1950

C. P. Hadley: Fine Grain Oxide-Coated Filaments

R. M. Howe: Probe Measurements in a Low Pressure Mercury Arc Discharge

J. F. Waymouth, Jr.: Deterioration of Oxide Cathodes under Low Duty-Factor Operation

M. K. Wilkinson: Field Emission Properties of Single Tungsten Crystals

### Journal Articles Accepted for Publication

W. C. Dickinson: Hartree Computation of the Internal Diamagnetic Field for Atoms (Phys. Rev.)

R. M. Fano: The Information Theory Point of View in Speech Communication (J. Acous. Soc. Am.)

P. E. Green, Jr.: Magnetic Tape Recorder for Very Low Frequency Phenomena (Rev. Sci. Insts.)

B. Lax, W. P. Allis, S. C. Brown: The Effect of Magnetic Field on the Breakdown of Gases at Microwave Frequencies (J. App. Phys.)

Y. W. Lee: Communication Applications of Correlation Analysis (Symposium on Applications of Autocorrelation Analysis to Physical Problems, Office of Naval Research)

Y. W. Lee, T. P. Cheatham, J. B. Wiesner: The Application of Correlation Functions in the Detection of Small Signals in Noise (Proc. I. R. E.)

A. J. Lephakis: Communication Applications of Storage Devices (Electronics)

L. J. Varnerin, Jr., S. C. Brown: Microwave Determinations of Average Electron Energies and the First Townsend Coefficient in Hydrogen (Phys. Rev.)

### Technical Reports Published

(The technical reports listed here may be obtained from the Document Office, 20B-221, Research Laboratory of Electronics, Massachusetts Institute of Technology, Cambridge 39, Massachusetts.)

No. 145 John G. Linvill: The Selection of Network Functions to Approximate Prescribed Frequency Characteristics

No. 154 A. J. Lephakis: An Electrostatic-Tube Storage System

(continued on next page)

Technical Reports Published (continued)

- No. 155 R. M. Fano: On a Class of Transfer Functions Suitable for Video Networks
- No. 156 John P. Costas: Periodic Sampling of Stationary Time Series
- No. 158 L. J. Varnerin, Jr., S. C. Brown: Microwave Determinations of Average Electron Energies and the First Townsend Coefficient in Hydrogen
- No. 159 J. F. Waymouth, Jr.: Deterioration of Oxide-Coated Cathodes under Low Duty-Factor Operation
- No. 161 E. H. Sondheimer: The Influence of a Transverse Magnetic Field on the Conductivity of Thin Metallic Films
- No. 165 B. Lax, W. P. Allis, S. C. Brown: The Effect of Magnetic Field on the Breakdown of Gases at Microwave Frequencies
- No. 167 C. C. Loomis, M. W. P. Strandberg: Microwave Spectrum of Phosphine, Arsine and Stibine