

## PUBLICATIONS AND REPORTS

### Meeting Papers Presented

AIEE Winter General Meeting, New York, January 22-26, 1951.

R. M. Fano: Application of Special Functions to Network Synthesis

American Physical Society, New York, February 1-3, 1951.

N. I. Adams, III, T. F. Wimett, F. Bitter: Nuclear Magnetic Moment Ratio of Isotopic Pairs

S. C. Brown: Recent Studies of Electron Collision Cross Sections at Low Energies

J. R. Eshbach, M. W. P. Strandberg: The Rotational Magnetic Moment of Polyatomic Molecules

B. V. Gokhale, M. W. P. Strandberg: Microwave Absorption Spectrum of Oxygen

R. E. Hillger, M. W. P. Strandberg: Centrifugal Distortion in Asymmetric  $\Sigma$  Molecules II: HDS

H. R. Johnson, J. G. Ingersoll: Microwave Spectrum of Ketene

A. F. Kip, R. Malvano, C. F. Davis: The Paramagnetic Spectrum of Ammonium Chrome Alum

R. D. Maurer, M. A. Herlin: Pressure Variation of Second Sound Velocity in Helium II

M. Prince, M. A. Herlin: Magnetic Dipole Interactions in Crystals near Absolute Zero

H. E. Rorschach, Jr., M. A. Herlin: Resistance Minima in Metals

M. T. Weiss, M. W. P. Strandberg: The Microwave Spectra of Deutero-Ammonias

IRE National Convention, New York, March 19-22, 1951.

A. Bavelas: Some of the Effects of Communication Patterns on the Performance of Small Task Groups

Y. W. Lee, L. G. Kraft: Detection of Repetitive Signals in Noise by Correlation

S. J. Mason: Signal Flow Graphs

R. E. Scott: Network Synthesis by the Use of Potential Analogs

### Journal Articles Accepted for Publication

- C. C. Loomis, M. W. P. Strandberg: Microwave Spectrum of Phosphine, Arsine and Stibine (Phys. Rev.)
- J. C. Slater: Magnetic Effects and the Hartree-Fock Equation (Phys. Rev.)
- E. H. Sondheimer: The Influence of a Transverse Magnetic Field on the Conductivity of Metallic Films (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. 148 W. B. Davenport, Jr.: A Study of Speech Probability Distributions
- No. 160 H. E. Singleton: Theory of Nonlinear Transducers
- No. 162 J. G. Truxal: Servomechanism Synthesis Through Pole-Zero Configurations
- No. 163 J. G. Linvill: Amplifiers with Prescribed Frequency Characteristics and Arbitrary Bandwidths
- No. 164 L. D. Smullin, W. G. Glass: The Offset Waveguide Junction as a Reactive Element
- No. 170 L. A. Harris: Axially Symmetric Electron Beams and Magnetic Field-Systems
- No. 181 Y. W. Lee: Application of Statistical Methods to Communication Problems