

## PUBLICATIONS AND REPORTS

### MEETING PAPERS PRESENTED

Fourth All-Union Conference on Acoustics, Acoustical Institute, Academy of Sciences,  
U.S.S.R., Moscow  
May 26 - June 4, 1958

U. Ingard, Propagation of sound in the atmosphere (invited)

U. Ingard and G. C. Maling, Jr., Noise generation by interacting air jets (invited)

Nobel Institute for Neurophysiology, Karolinska Institute, Stockholm  
June 3, 1958

W. A. Rosenblith, Mathematical and electronic techniques in the study of the electrical activity of the nervous system (invited)

Max Planck Institut für Verhaltensphysiologie, Seewiesen, Germany  
June 9, 1958

W. A. Rosenblith, Central mechanisms in audition and the analysis of electrical activity in the nervous system (invited)

Kamerlingh Onnes Conference on Low Temperature Physics, Leiden  
June 23-28, 1958

M. W. P. Strandberg, Electron spin-lattice relaxation times

L. Tisza, How can the multiplicity of the ground state wave function of liquid helium be inferred from thermostatics?

IRE-AIEE 16th annual conference on Electron Tube Research, Université Laval, Québec  
June 25-27, 1958

S. A. Collins, Jr., R. L. Kyhl, D. G. Park, Jr., and M. W. P. Strandberg,  
Experiments with a pulsed two-level solid-state maser

University of Freiburg, Germany  
July 3, 1958

W. A. Rosenblith, Electrophysiological responses in sensory systems in animals (including man) (invited)

Scuola Internazionale di Fisica, Course on Information Theory, Varenna, Italy  
July 7-19, 1958

R. M. Fano, Four lectures on the statistical theory of information

M. Halle, Three lectures on linguistics

H. A. Haus, Network theoretical and physical limitations of noise performance of linear amplifiers

MEETING PAPERS PRESENTED (continued)

D. A. Huffman, Notes on information lossless infinite-state

Notes on linear binary sequence transducers

Y. W. Lee, Three lectures on statistical filtering and prediction

W. A. Rosenblith, Outline of a model sensory system

Probabilistic models in the study of the auditory system

The use of electronic computers in the analysis of responses to sensory stimuli

The activity of the nervous system: temporal characteristics and pseudo-state-variables

Data Processing Seminar, Office of Naval Research, Washington, D. C.  
July 9, 1958

W. S. McCulloch, The reliability of probabilistic biological computers (invited)

Study Program in Biophysical Science, University of Colorado, Boulder  
July 20 - August 16, 1958

W. A. Rosenblith, Sensory performance of organisms (invited)

Electrical activity of higher neural centers in response to sensory signals (invited)

Second Symposium on Naval Hydrodynamics, Office of Naval Research and National  
Academy of Sciences-National Research Council, Washington, D. C.  
Aug. 25-29, 1958

U. Ingard, Excitation of acoustic resonators by flow (invited)

JOURNAL ARTICLES ACCEPTED FOR PUBLICATION

(Reprints, if available, may be obtained from the Document Room,  
26-327, Research Laboratory of Electronics, Massachusetts Institute  
of Technology, Cambridge 39, Massachusetts.)

R. B. Adler and H. A. Haus, Network realization of optimum amplifier noise performance (Trans. IRE, PGCT)

E. J. Baghdady, Theory of low-distortion reproduction of FM signals in linear systems (Trans. IRE, PGCT)

A. Bers, The degrees of freedom in RLC networks (Trans. IRE, PGCT)

C. F. Davis, Jr., M. W. P. Strandberg, and R. L. Kyhl, Direct measurement of electron spin-lattice relaxation times (Phys. Rev.)

C. W. Garland and R. Dalven, Elastic constants of zinc from 4.2° K to 77.6° K (Phys. Rev.)

JOURNAL ARTICLES ACCEPTED FOR PUBLICATION (continued)

- H. A. Haus and R. B. Adler, Canonical form of linear noisy networks (Trans. IRE, PGCT)
- J. L. Hirshfield and S. C. Brown, A microwave method for measuring the probability of elastic collision of electrons in a gas (J. Appl. Phys.)
- G. H. Matthews, On tone in Crow (Int. J. Am. Ling.)
- R. D. Mattuck and M. W. P. Strandberg, The micromodulator – a device for measuring the heights of microwave absorption lines (Rev. Sci. Instr.)
- W. B. Nottingham, The thermionic diode as a heat-to-electric-power transducer (J. Appl. Phys.)
- P. D. Wall, Repetitive discharge of neurons (J. Neurophysiol.)

LETTERS TO THE EDITOR ACCEPTED FOR PUBLICATION

- R. J. Morris, R. L. Kyhl, and M. W. P. Strandberg, A tunable maser amplifier with large bandwidth (Proc. IRE)
- M. Peter and M. W. P. Strandberg, Efficiency of frequency measurements with an atomic clock (Proc. IRE)

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 39, Massachusetts.)

- 283 S. C. Brown and W. P. Allis, Basic data of electrical discharges (4th Edition)
- 330 J. Y. Hayase, Properties of second-order correlation functions
- 333 S. Saito, New method of measuring the noise parameters of the electron beam, especially the correlation between its velocity and current fluctuations
- 340 M. A. Epstein, Algebraic decoding for a binary erasure channel