

Polarization of Radio Emission From Discrete
Sources and the Study of Metagalactic,
Galactic and Near-Solar Space, by V. L.
Ginzburg, V. V. Pisareva.

RUSSIAN, per, Iz Vysshykh Ucheb Zaved Radiofizika
23 pp. 9629120

Navy Tr 3619/NRL 946

Sci - Phys
Nov 63

242,421

Troitskii, V. S.
CERTAIN PROBLEMS OF THE THEORY OF
FLUCTUATIONS IN OSCILLATORS: THE INFLUENCE
OF FLICKER NOISE (Nekotorye Voprosy Teorii
Flyuktuatsii v Avtoreneratortakh: Vliyaniye Flicker-
Shuma) tr. by Robert Judson. June 61 [25]p. 21 refs.
Order from OTS or SLA \$2.60 61-28688

Trans. of Izvestiya Vysshikh Uchebnykh Zavedenii.
Radiofizika (USSR) 1958 [v. 1] no. 1, p. 20-33.

DESCRIPTORS: *Oscillators, Radiofrequency gener-
ators, Frequency, Measurement, Phase shifters,
*Noise (Radio), Electronic equipment.

Previous developments of fluctuation theory satis-
factorily explained only the wings of the spectral distri-
bution of the output power of radio frequency generators.
(Physics--Electronics, TT, v. 7, no. 7) (over)

61-28688

1. Title: Flicker noise
1. Troitskii, V. S.

Office of Technical Services

Contribution to the Theory of Motion of Ionospheric
Inhomogeneities, by V. P. Dokuchayev, 17 pp. UNCL

RUSSIAN, per, Iz Vysshykh Uchebnykh Zavedeniy
Radiofiz, No 1, 1958, pp 35-40

ATEC P-23-9844/III

Sci - Geophys
Apr 59

85,048

Neimark, Yu. I.
THE METHOD OF POINT TRANSFORMATIONS IN
THE THEORY OF NON-LINEAR OSCILLATIONS, I.
[1961] [52]p. 34 refs.
Order from OTS or SLA \$5.60

Trans. of Izvestiya Vysshikh Uchebnykh Zavedenii.
Radiofizika (USSR) 1958 [v. 1] no. 1, p. 41-66.

DESCRIPTORS: Control systems, Stability, *Oscilla-
tions, Theory, Mathematical analysis, *Transforma-
tions (Mathematics), *Differential equations.

This study represents the first part of a systematic
exposition of certain general questions on the method
of point transformations in the application to systems
with an arbitrary number of degrees of freedom.
(Author)

(Engineering--Electronic, TT, v. 6, no. 10)

61-16438

I. Neimark, Yu. I.

185688

Office of Technical Services

(DC-3901/33)

On Transformations of Program Flow Diagrams, by
Yu. I. Yanov, 11 pp.

RUSSIAN, per, Iz Vysshikh Ucheb Zaved, Radiofiz,
No 1, 1958, pp 110-119.

JPRS 6868

Sci - Misc

Mar 61

142,391

Lupanov, O. B.
ON A METHOD OF SYNTHESIS OF NETWORKS
S. W. Golomb, tr. 26 Aug 63 [27p] 20 refs JPLAI/Trans-
36; NASA CR-52251; N64-10090.
Contract NAS7-100
Order from OTS, SLA, or ETC \$2.60 TT-64-13109

Trans. of Izvestiya Vysshikh Uchebnykh Zavedenii.
Radiofizika (USSR) 1958 [v. 1] no. 1, p. 120-140.
(Abstract available)

DESCRIPTORS: *Cybernetics, *Networks, *Circuits,
Synthesis, *Computer logic

A description of a certain general method for the syn-
thesis of networks—for example, contact networks, con-
tact parallel-series networks, and networks of func-
tional elements—is given, and the previously known esti-
mates of the complexity of these networks are improved
upon. (Author)
(Mathematics--Computing Devices, TT, v. 11, no. 3)

TT-64-13109

- I. Lupanov, O. B.
- II. JPLAI/Trans-36
- III. NASA-CR-52251
- IV. N64-10090, \$2.60 ph,
\$1.01 mf
- V. Jet Propulsion Lab.,
Calif. Inst. of Tech.,
Pasadena
- VI. Contract NAS7-100

Office of Technical Services

(DC-4288)

Some Features of the Logical Structure of the
GIFTI Machine and Programming in Its Code, (Part I),
by A. M. Gil'man, 13 pp.

RUSSIAN, per, Iz Vysshikh Ucheb Zaved, Radiofiz,
No 1, 1958, pp 141-149.

JPRS 6917

Sci - Misc

Mar 61

144,198

Concerning the Problem of the Reflection of
Electromagnetic Waves from the Inhomogeneities of
the Epstein-Layer Type, by V. I. Ivanchikov, 5 pp.
UNCL

RUSSIAN, por, in Vysshykh Uchebnykh Zavedeniya
Radiofiz, No 1, 1958, pp 150-152.

ATTC F-43-9844/III

Sci - Geophys
Apr 59

85,049

Atmospheric Radio Emission and Investigation of the
Absorption of Centimetric Radio Waves, by S.
Zhevakin,

RUSSIAN, per, Iz Vysshikh Uchebnykh Zavedenii
Radiofizika, Vol I, No 2, pp 19-26., 1958.

C.S.I.R.O. 4558

Sci

May 60

SLA 60-17314

115,157

Static and Dynamic Characteristics of
Discharge with Oscillating Electrons in a
Magnetic Field, by E. M. Reykhrudel'
and G. M. Smirnitckaya, 16 pp. UNCL

RUSSIAN per, Iz Vysshikh Uchebnykh Zavedeniy,
Radiofiz Otdel Ottisk, Vol I, No 2, 1958,
pp 36-44.

ATIC MCL-171/V

Sci-Electron

Telecom 41336

Feb 60

109,048

Peculiarities of Ignition From a Discharge in a
High Vacuum in a Magnetic Field, by E. M. Reykhrudel'
and G. V. Smirnitskaya, 11 pp. UNCL

RUSSIAN per, Iz Vysshikh Uchebnykh Zavedeniy,
Radiofiz, Otdel Ottisk, Vol I, No 2, 1958, pp 45-50

ATIC MCL-171/v

Sci-Electron

Telecom 41336

Feb 60

109,047

Absorption and Radiation of Electromagnetic
Waves by a Magnetoactive Plasma, by V. L. Ginzburg
& V. V. Zheleznyakov.

RUSSIAN, per, VUZ, Izv., Radiofizika, Vol 1,
No 2, 1958, pp 59-65.

Dept of Navy/APL/JHU T-2136

Sci/Phys
May 68

358,194

On the Absorption of Electromagnetic Waves by a
Magnetoactive Plasma, by V. L. Ginzburg, V. V.
Zheleznyakov, 9 pp.

RUSSIAN, per, Iz Vysshykh Uchebnykh Zavedeniy,
MVO, Radiofizika, ~~1958~~, No 2, 1958, pp. ~~1-9~~.

2
MDP-Q-159

59-65.

Sci
Nov 59

101,150

Design of a Molecular Generator Based on a
Beam of ND_3 Molecules, by N. G. Basov,
K. K. Svidzinskiy.

RUSSIAN, per, Iz Vysshikh Unshch Zamed Radiofizika,
Vol I, No 2, 1958, pp 89-94.

Navy Tr 3514/APL 831

Sci - Phys
Aug 63

238,304

(DC-4288)

Some Features of the Logical Structure of the
GIFTI Machine and Programming in Its Code (Part II),
by A. M. Gil'man, 29 pp.

RUSSIAN, per, Iz Vysshikh Ucheb Zaved, Radiofiz,
No 2, 1958, pp 140-155.

JPRS 6917

Sci - Misc

144,199

Mar 61

(DC-4288)

The Memory Device of the GIFTI Machine, by A. M.
Goncharov, A. S. Tarantovich, 18 pp.

RUSSIAN, per, Iz Vysshikh Ucheb Zaved, Radiofiz,
No 2, 1958, pp 156-168.

JPRS 6917

Sci - Misc

Mar 61

144,193

Matching of the Frequencies of Quartz and
Molecular Generators, by V. V. Nikitin.

RUSSIAN, per, Iz Vysshikh Ucheb Zaved Radiofizika,
Vol I, No 2, 1958, pp 190-191.

Navy TR 3561/APL 954

Sci - Phys
Sep 63

345,297

(2415-N)

Lines of Development of Superhigh Frequency
Electronics in the Soviet Union², by N. D.
Davyatkov, 15 pp.

RUSSIAN, per, Iz Vysshikh Uchebnykh Zavedeniy,
Radiofiz, Vol I, No 3, 1958, pp 3-12.

JPRS 1613-N

Sci - Electronics
Jun 59

88,160

On Singularities of Quasi-Transverse Magnetohydrodynamic Wave Propagation in a Plasma, by B. N. Gershman, M. S. Kovner, 7 pp.

RUSSIAN, per, Iz Vysshykh Uchebnykh Zavedeniy, MVO, Radiofizika, Vol I, No 3, 1958, pp 19-24.

MDF-G-160

Sci
Nov 59

101,152

(2415-B)

Distribution of Scattering Elements for Propagation
of Radio Waves over an Agitated Sea Surface, by
S. Ya. Braude, 8 pp.

RUSSIAN, per, Iz Vysshikh Uchebnykh Zavedeniy,
Radiofiz. Vol I, No 3, 1958, pp 25-29.

JPRS 1612-B

Sci - Electronics
Jun 59

88,159

Wave Propagation in Transmission Lines With Non-uniform Surface Impedance, by V. I. Bespalov, 12 pp.

RUSSIAN, par, Investia VUZ MVO, Radiofizika, Vol I, No 3, 1958, pp 54-63.

MDF - B-143
FDD X-4483

Sci - Electronics

Nov 60

131, 834

Motion of Charged Particles in High-Frequency
Electromagnetic Fields, by M. A. Miller, 19 pp.

RUSSIAN, per, Iz Vysshikh Ucheb, Zaved Radiofiz,
Vol I, No 3, 1958, p 110. ~~9061357~~

ABC Tr-4750

*ATIC

170, 223

Sci - Phys
Oct 61

Determining the Average Size of Magnetized Clouds of
Interstellar Gas by Radio-Astronomical Methods,
by G. Gernantsev,

RUSSIAN, per, Iz Vysshikh Uchebnykh Zavedenii Radiofizika,
Vol I, No 3, pp 158. 1958

SLH 60-17215 C.S.I.R.O. 4559

Sci

Apr 60

115,324

Radiotelescope for 10 cm. Wave Length with a
Focusing Beam (Directivity Pattern). by I.
Moiseev

RUSSIAN, per, Iz Vysshikh Uchebnykh Zavedenii,
Radiofizika, No 3, Vol I, pp 159-161. 1958

C.S.I.R.O. 4560

Sci

SLA 62-7461

Apr 60

115,331

(2415-H)

Feasibility of Determining Distribution Functions of Scatterers on an Agitated Sea Surface by the Radar Method, by S. Ya. Brande, F. G. Bass, 3 pp.

RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy, Radiofizika, Vol I, No 3, 1958, pp 161, 162.

JPES 1614-H

Sci - Electronics
Jun 59

88,158

Variations in the Modulation of Strong Radio
Waves in a Plasma (Ionosphere) by A. V.
Gurevich, 24 pp.

RUSSIAN, per, Iz Vysshikh Ucheb Zaved, Radiofiz
No 4, 1958, pp 21-31. 9670304

FTD-TT-61-534

Sci - Elec

Oct 63

345, 288

On the Possibility of Constructing a Sealed-Beam
Molecular Oscillator Using ND_3 , NH_2D , and NHD_2
Molecules, by N. G. Basov, A. N. Oraevskiy. 9 pp.

RUSSIAN, per, Iz Vysshikh Ucheb Zaved Radiofizika,
Vol 1, No 4, 1958, pp 63-68

Navy Tr 35231/AFL 364

Sci - Electron, Phys
Sep 63

OTS 63-11723

344,170

The Theory of Cross-Modulation of Radiowaves, by
A. V. Gurevich, 21 pp.
RUSSIAN, per, iz Vysshikh Ucheb Zaved, Radiofiz,
Vol 1, No 3, 6, 1958, pp 17-28. 9127518
NASA TT F-259

Sci-Phys
Jun 63

281,552

On the Stability of π Oscillations in a Molecular
Generator, by Kh. Yu. Khalde, R. V. Khokhlov, 10 pp.

RUSSIAN, per, Iz Vysshikh Ucheb Zaved Radiofizika,
Vol I, No 5/6, 1958, pp 60-65.

Navy Tr 3548/APL 384

Sci - Phys
Sep 63

CTS 63-11717

344,163

On the Spectral Line Width of Three-Level
Quantum Generator, by A. N. Malakhov,
V. M. Fain, *13 pp.*

RUSSIAN, per, Iz Vysshikh Ucheb Zaved
Radiofizika, Vol I, No 5/6, 1958,
pp 66-74.

Navy Tr 3551/APL 389

OTS TT-64-11537

344,164

Sci - Phys
Sep 63

Non-Linear Effects in Magneto-Active Plasma, by
V. V. Zheleznyakov. *124*

RUSSIAN, per, Iz Vysshikh Ucheb Zaved, Radiofiz,
Vol I, No 5/6, 1958, pp 29-33. *125-67*

*FTD-TT-61-277

Sci - Phys, Electron *6*

15 Nov 61

Fain, V. M.
ON THE THEORY OF THE COHETRON. [1962] 13p.
13 refs,
Order from OTS or SLA \$1.60 62-10641

Trans. of Izv[estiya] Vysshikh Uchebnykh Zavedenii.
[Radiofizika] (USSR) 1958, v. 1, no. 5/6, p. 75-82.

DESCRIPTORS: *Electromagnetic waves, *Generators,
Theory, Microwaves, Spins, Magnetic fields, Radio
waves, Ferrites, Particles, Thermodynamics, Excitation,
Very high frequency.

Certain theoretical questions connected with the modes
of operation of the cohетron (a generator of micro-
radiowaves making use of the spontaneous radiation of
spin systems in a magnetic field) are considered.

(Author)

(Physics--Electronics, TT, v. 8, no. 5)

62-10641

1. Title: Cohetron
1. Fain, V. M.

Office of Technical Services

On the Theory of the Molecular Generator,
by A. S. Gurtovnik, 7 pp.

RUSSIAN, per, Iz Vysshikh Ucheb Zaved
Radiofizika, Vol I, No 5/6, 1958, pp 83-87.

Navy Tr 3546/APL 382

OTS 63-11713

Sci - Phys
Sep 63

344,169

Radiotelescope for a 10 cm Wave Length
With a Rocking Beam (Directivity Pattern),
by I. G. Moiseyev.

RUSSIAN, per, Iz VUZ Radiofizika SSSR, 1958,
Vol I, No 9, pp 159-161.

SLA 60-17461

Sci

186, 932

Feb 62

1959

IZVESTIYA VUZ, RADIOFIZIKA
(Izvestiya Vuzov, Radiophysics - monthly)
Translation of 1959-1963, Vols. 2-6
and 1964, Vol. 7, No. 1, Vol. 8, No. 2
Order from: National Technical Information
Service
5285 Port Royal Road
Springfield, Virginia 22151
\$ 3.00 single issues

Ruaw

Rabinovich, M. L.
DYNAMICS OF A SERVOMECHANISM WITH BACK-
LASH AND INSERTION OF NONLINEAR COMPENSA-
TION (Dinamika Sledyashchei Sistemy s Lyudom pri
Vvedenii Nelineinot Korrektsii). [1964] [30p] (foreign
text included) 12refs
Order from OTS, SLA, or ETC \$2.60 TT-64-10799

Trans. of #Izvestiya Vysshikh Uchebnykh Zavedenii.
Radiofizika (USSR) 1962, v. 5, no. 5, p. 998-1008.

(Engineering, TT, v. 11, no. 12)

TT-64-10799

I. Rabinovich, M. L.

Office of Technical Services

Machanochemistry Research at the Moscow Technological
Institute for Light Industry, by L. P. Gaidarov.

RUSSIAN, per, Iz VUZ Tekh Legk Prom, No 5, 1961,
pp 149-158.

RAFRA 946

207, 266

Sci - E Chem

Aug 62

(2214-N)

Traveling Wave Antenna With Controllable Directions
of Null Reception, by S. Ya. Braude, A. V. Men'
I. Ye. Ostrovskiy, 9 pp.

RUSSIAN, per, Izvestiya Vysshikh Uchebnykh Zavedeniy
MVO SSSR-Radiotekhnika, July/August 1958, pp 415-

412

US JPRS L-520-N

Sci - Electronics

Feb 59

81,360

Rectifiers on the Basis of Cadmium Iodide
Films, by M. M. Nekrasov, 12 pp.

RUSSIAN, per, Iz Vyss Ucheb Zaveda, Radiotekh
USSR, No 1, 1958, pp 43-48.

SLA 59-14251

Sci
Dec 59
Vol 2, No 4

102, 704

Diffraction of Electromagnetic Waves on a
Semi-Infinite Grating, by A. E. Bezmenov,
27 p.

RUSSIAN, per, Izv V U Zavedeniy Radiotekhnika,
1958, No 3, pp 271-287.

SLA 59-16561

Sci
Jan 60
Vol 2, No 6

103,759