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FOREWORD

Volume 3 of Unclassified Publications of Lincoln Laboratory lists reports published from 15 September 1969 to 15 September 1971, as well as updated information on earlier publications.

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Accepted for the Air Force
Joseph R. Waterman, Lt. Col., USAF
Chief, Lincoln Laboratory Project Office

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	<u>DDC No.</u>
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15 August 1970	AD-711662
15 November 1970	AD-716816

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30 November 1969	AD-700316	30 November 1970	AD-716817
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31 December 1969	AD-700322	31 December 1970	AD-718971
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405	On-Line Graphical Specification of Computer Procedures	W. R. Sutherland	23 May 1966	AD-639734
454	Optical Communication Through Multiple-Scattering Media	H. M. Heggstad	22 Nov. 1968	AD-688850
458	Observations of OH Radio Emission Sources	J. A. Ball	23 May 1969	AD-704572
468	Quantization Effects in Digital Filters	C. J. Weinstein	21 Nov. 1969	AD-706862
469	Automatic Orbit Control of the Lincoln Experimental Satellite LES-6	A. A. Braga-Illa	10 July 1969	AD-697955
470	Dynamic Solutions for Single and Coupled Microstrip Lines	E. J. Denlinger	19 Nov. 1969	AD-708720
471	Variable-Coverage Communications Antenna for LES-7	A. R. Dion	17 Oct. 1969	AD-700760
473	Development of UHF Switch for LES-6 Satellite	R. N. Assaly	4 Dec. 1969	AD-710612
474	Millstone Hill Thomson Scatter Results for 1965	J. V. Evans	8 Dec. 1969	AD-707501
475	A Technique for Synthesizing Signals and Their Matched Filters	B. Loesch E. M. Hofstetter J. P. Perry	29 Dec. 1969	AD-704574
476	Balloon-Flight Instrumentation for Solar-Cell Measurements	F. W. Sarles, Jr. W. C. Haase P. F. McKenzie	23 Jan. 1970	AD-707134
477	Incoherent Scatter Measurements of F-Region Density, Temperatures, and Vertical Velocity at Millstone Hill	J. V. Evans R. F. Julian W. A. Reid	6 Feb. 1970	AD-706863
478	Very Long Baseline Interferometry as a Means of Worldwide Time Synchronization	A. E. E. Rogers J. M. Moran, Jr.	17 Feb. 1970	AD-704134
480	Magnetic Moment Versus Temperature Curves of Ferrimagnetic Garnet Materials	G. F. Dionne	9 Sept. 1970	AD-715284
481	Millstone Hill Thomson Scatter Results for 1966	J. V. Evans	19 Jan. 1971	AD-725742
482	Millstone Hill Thomson Scatter Results for 1967	J. V. Evans	22 July 1971	
483	Description of the Avon-to-Westford Experiment	R. K. Crane	29 Apr. 1971	

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1965-32	A Generalization of Newtonian Aerodynamic Theory to Include Viscous Effects	H. Schneider A. Freed	26 July 1965	AD-468972
1967-2	Three Fortran Programs that Perform the Cooley-Tukey Fourier Transform	N. M. Brenner	28 July 1967	AD-657019
1969-29	Selected Materials for Use in Microsound Circuits and Components: Their Elastic, Piezoelectric, and Dielectric Parameters	D. H. Chung	8 May 1969	AD-692111
1969-34	Automatic Microwave Circuit Analysis with GCP-MOD2	W. J. Getsinger T. E. Maggiacomo	10 July 1969	AD-697954
1969-40	LASA Decision Probabilities for $M_S - m_b$ and Modified Spectral Ratio	R. T. Lacoss	23 July 1969	AD-692451
1969-41	Estimation of Seismicity and Network Detection Capability	E. J. Kelly R. T. Lacoss	16 Sept. 1969	AD-695044
1969-42	Some FORTRAN Subprograms Used in Astronomy	J. A. Ball	16 July 1969	AD-691816
1969-44	Continuous Coverage of the North Polar Region with Only Two Communications Satellites	J. U. Beusch	4 Sept. 1969	AD-698751
1969-45	M-ary Channel Quantization for Sequential Decoding	R. Teoste	20 Aug. 1969	AD-693196
1969-47	Probability Density Function Estimation (with Applications to Receiver Design for Reception in Non-Gaussian Noise)	J. E. Evans	29 Aug. 1969	AD-694552
1969-48	Efficient Realization of Boolean Functions by Pruning NAND (NOR) Trees	B. E. White	2 Sept. 1969	AD-693565
1969-49	A New Method of Generating Gaussian Random Variables by Computer	C. M. Rader	18 Sept. 1969	AD-695042
1969-51	The Millstone Hill Propagation Study	J. V. Evans, Editor	26 Sept. 1969	AD-701939
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1969-54	Principles of Wideband Unidirectional Piezoelectric Transducers	R. A. Waldron	4 Nov. 1969	AD-698750
1969-55	Computer Generated Speech Spectrograms	A. V. Oppenheim	28 Nov. 1969	AD-701020
1969-58	A Multi-Level Phase Continuous FSK Modulator	M. P. Mullo	10 Nov. 1969	AD-702099
1969-59	Negative Conductivity in Solid State Avalanche Diodes	H. Berger	16 Dec. 1969	AD-701395
1969-60	Dispersion Relations for IMPATT Diodes	H. Berger	16 Dec. 1969	AD-701021
1969-61	Moderate Cost UHF Satellite Communications Without Exclusive Frequency Allocations	I. L. Lebow C. W. Niessen T. S. Seay	3 Dec. 1969	AD-702100
1969-62	Frequency Domain Analysis of a Class of Nonlinear Networks	J. Gorski-Popiel	26 Nov. 1969	AD-710200
1970-1	Water-Wave Effects on Radio Wave Propagation in the Ocean	M. L. Burrows	2 Jan. 1970	AD-700323
1970-3	The Results of the LES-5 and LES-6 RFI Experiments	W. W. Ward R. L. Sicotte K. H. Hurlbut C. J. Zamites, Jr.	6 Feb. 1970	AD-703738
1970-3 (Supp. 1)	The Results of the LES-5 and LES-6 RFI Experiments	W. W. Ward R. L. Sicotte K. H. Hurlbut C. J. Zamites, Jr.	2 July 1970	AD-709766
1970-5	Report on a Weather Radar Study	J. W. Meyer, Editor	5 Feb. 1970	AD-701742
1970-6	DEANE: A Computer Aid for Ballistic Missile Defense Analysis	D. L. McCraith	4 Nov. 1970	AD-727045
1970-7	Transcutaneous Spectral Blood-Flowmeter	M. P. Fraser	26 Mar. 1970	AD-707136
1970-8	VHF Antenna System for Aircraft	M. L. Rosenthal	12 Mar. 1970	AD-705170
1970-9	On Estimating Explosive Source Parameters at Teleseismic Distances	J. R. Filson	8 July 1970	AD-709767
1970-10	Design of Stable, High Efficiency, High Power Upper Sideband Upconverters	R. L. Sicotte	17 June 1970	AD-709362

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1970-11	Simple Estimates of Wake Velocity Parameters	E. M. Hofstetter	23 Apr. 1970	AD-705590
1970-12	Optimal Mismatched Filter Design for Radar Ranging, Detection and Resolution	R. J. McAulay J. R. Johnson	23 Apr. 1970	AD-706397
1970-15	Signal Processing Results for Continental Aperture Seismic Array	J. Capon	15 May 1970	AD-707863
1970-17	A Theory of Multiple Modes in Avalanche Diodes	H. Berger	9 June 1970	AD-711923
1970-18	Error Performance Bounds for Two Receivers for Optical Communication and Detection	E. A. Bucher	10 Nov. 1970	AD-718099
1970-19	High-Efficiency Modes in Avalanche Diodes	H. Berger R. J. Sasiela	3 Aug. 1970	AD-710201
1970-20	The Millstone Hill Propagation Study: Progress in FY 1970	J. V. Evans, Editor	2 Dec. 1970	AD-717156
1970-21	A Gridded Thick Film Metalization Structure Employed in Multichip Circuit Fabrication	H. H. Pichler	4 Aug. 1970	AD-710614
1970-27	On the Theory of Localized One-Electron States in Perfect Crystals	T. A. Kaplan P. N. Argyres	1 Sept. 1970	AD-711372
1970-29	A Comparison Between Monostatic and Bistatic Scattering from Rain and Thin Turbulent Layers	R. K. Crane	6 Oct. 1970	AD-N71-12395
1970-30	Processing a Partially Coherent Large Seismic Array for Discrimination	R. T. Lacoss G. T. Kuster	27 Nov. 1970	AD-715917
1970-31	Fabrication of Flexible Loop Antenna	M. L. Burrows A. H. Levasseur E. B. Murphy O. G. Nackoney C. B. Swanton	5 Oct. 1970	AD-717718
1970-32	Velocity Requirements for Rapid Intercept with Mid-course Corrections	M. E. Ash	23 Oct. 1970	AD-718421
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1970-37	Wind Pressure Distributions on Radomes in Gradient Flows During and After Construction	F. H. Durgin W. R. Fanning	10 Dec. 1970	
1970-38	An Improved Method for the Design of Wind Tunnel Velocity Profile Grids	F. H. Durgin	30 Dec. 1970	
1970-39	A Cockpit Situation Display of Selected NAS/ARTS Data	R. W. Bush H. Blatt F. X. Brady	15 Dec. 1970	AD-716425
1970-41	Two-Dimensional Windows	T. S. Huang	31 Dec. 1970	AD-717159
1970-42	A New Technique for the Design of Non-Recursive Digital Filters	E. M. Hofstetter	15 Dec. 1970	AD-717163
1970-43	Airborne Severe Storm Surveillance, Volume I: Summary and Recommendations	J. W. Meyer, Editor	17 Dec. 1970	AD-717719
1970-45	Ray Tracing in Arbitrarily Heterogeneous Media	B. R. Julian	31 Dec. 1970	AD-720795
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1971-3	ELF Propagation Study (Phase 1 - Summer 1970)	D. P. White D. K. Willim	11 Jan. 1971	AD-718100
1971-5	Design of Multi-Region Pressure Vessels Using Maximum Shear Theory	A. R. Leyenaar T. E. Stack	27 Jan. 1971	AD-718970
1971-6	Orbit Averaged Variation of Earth Satellite Orbital Elements	M. E. Ash	22 Feb. 1971	AD-720823
1971-7	Earth Coverage ("Footprint") of a Satellite-Borne Antenna	S. L. Zolnay	5 Feb. 1971	AD-719763
1971-8	The Graded-Gap Semiconductor Photoemitter	I. Melngailis	22 Jan. 1971	AD-720796
1971-10	LES-8/9 Attitude Control System Numerical Simulation	C. H. Much N. P. Smith F. W. Floyd E. H. Swenson	5 Feb. 1971	AD-726096
1971-11	Seismic Scaling of Explosive Source Functions Using Teleseismic P Waves	C. W. Frasier	14 Apr. 1971	AD-723638

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1971-12	Optimal Measurement Strategies for Linear Stochastic Systems	M. Athans	26 Feb. 1971	AD-724073
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1971-15	Final Report: Development of a 10^7 Bit Magnetic Film Memory	J. I. Raffel A. H. Anderson R. Berger T. S. Crowther T. O. Herndon M. L. Naiman C. E. Woodward	10 June 1971	AD-727768
1971-19	An Airborne Traffic Situation Display System	R. W. Bush H. Blatt F. X. Brady	23 June 1971	AD-727769
1971-20	Stability of Two-Dimensional Recursive Filters	T. S. Huang	2 June 1971	AD-728213
1971-21	A Theory of Multiple Antenna AMTI Radar	E. M. Hofstetter C. J. Weinstein C. E. Muehe	8 Apr. 1971	AD-724076
1971-22	General Purpose Digital Signal Processing Architectures for Radar	B. Gold	16 Apr. 1971	AD-724685
1971-25	Performance of a 110-Wavelength EHF Waveguide Lens	A. R. Dion	23 Apr. 1971	AD-724686
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1971-31	Error Rates for Square-Law Combining Receivers	S. L. Bernstein	14 May 1971	AD-725040
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1971-34	Clutter Returns from Vegetated Areas	S. Rosenbaum L. W. Bowles	10 Sept. 1971	
1971-35	Combinatorial Ordering and the Geometric Embedding of Graphs	L. F. Mondsheim	5 Aug. 1971	AD-730602
1971-39	Response of Structural Systems to Nonstationary Random Excitation	D. C. Hyland	7 Sept. 1971	AD-731159

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<u>JA No.</u>			
171	Simulation of Self-Organizing Systems by Digital Computer	B. G. Farley W. A. Clark	Trans. IRE, PGIT <u>IT-4</u> , 76 (1954)
2114	Radar	J. Freedman	Chap. 14 in <u>System Engineering Handbook</u> , R. E. Machal, editor (McGraw-Hill, New York, 1965)
2196	A Conservation Law for a Wide Class of Queueing Disciplines	L. Kleinrock	Naval Res. Log. Quart. <u>12</u> , 181 (1965), DDC AD-631082
2263	Quantum Oscillations of the Ultrasonic Absorption in Lead Telluride	Y. Shapira B. Lax	Physics Letters <u>7</u> , 133 (1963)
2289	Transition Correlations for Hypersonic Wakes	S. L. Zeiberg	AIAA J. <u>2</u> , 564 (1964)
2340-1	Radar Measurements of Target Scattering Properties	P. E. Green, Jr.	Chap. 1 in <u>Radar Astronomy</u> (McGraw-Hill, New York, 1968)
2340-2	Radio Wave Propagation through the Earth's Neutral Atmosphere and Ionosphere	T. F. Rogers J. V. Evans	Chap. 2 in <u>Radar Astronomy</u> (McGraw-Hill, New York, 1968)
2340-3	Spin and Orbital Motions of Planets	I. I. Shapiro	Chap. 3 in <u>Radar Astronomy</u> (McGraw-Hill, New York, 1968)
2340-4	Relations Between Rough Surfaces and Their Scattering Properties as Applied to Radar Astronomy	T. Hagfors	Chap. 4 in <u>Radar Astronomy</u> (McGraw-Hill, New York, 1968)
2340-5	Radar Studies of the Moon	T. Hagfors J. V. Evans	Chap. 5 in <u>Radar Astronomy</u> (McGraw-Hill, New York, 1968)
2340-6	Radar Studies of the Planets	G. H. Pettengill	Chap. 6 in <u>Radar Astronomy</u> (McGraw-Hill, New York, 1968)
2340-7	Radar Astronomy Systems: Equipment	J. V. Evans J. Ruze H. G. Weiss R. H. Kingston C. Blake	Chap. 8 in <u>Radar Astronomy</u> (McGraw-Hill, New York, 1968)
2340-8	Modulation, Demodulation, and Data Processing Applied to Radar Astronomy	J. V. Evans	Chap. 9 in <u>Radar Astronomy</u> (McGraw-Hill, New York, 1968)
2425	On the Schwartz Inequality	M. J. Levin	Proc. IEEE (Correspondence) <u>53</u> , 107 (1965), DDC AD-615350

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2482	X-Band Modulation of GaAs Lasers	B. S. Goldstein R. M. Weigand	Proc. IEEE (Correspondence) <u>53</u> , 195 (1965), DDC AD-614870
2548B	Concluding Remarks on Ionospheric F-Region Temperatures	J. V. Evans	<u>Electron Density Profiles in Ionosphere and Exosphere</u> (North-Holland, Amsterdam, 1966), DDC AD-640996
2548C	Ionospheric Backscatter Observations at Millstone Hill	J. V. Evans	<u>Electron Density Profiles in Ionosphere and Exosphere</u> (North-Holland, Amsterdam, 1966), DDC AD-640997
2591	Properties of InAs Lasers	I. Melngailis R. H. Rediker	J. Appl. Phys. <u>37</u> , 899 (1966), DDC AD-642173
2736	The Augmented Plane Wave Method and the Electronic Properties of Rare-Earth Metals	A. J. Freeman J. O. Dimmock R. E. Watson	<u>Quantum Theory of Atoms, Molecules, and the Solid State</u> (Academic Press, New York, 1966)
2872	First-Order Localized Electron \leftrightarrow Collective-Electron Transition in LaCoO ₃	P. M. Raccach J. B. Goodenough	Phys. Rev. <u>155</u> , 932 (1967), DDC AD-658906
2908A	Lincoln Experimental Satellite Program (LES-1, -2, -3, -4)	H. Sherman D. C. MacLellan R. M. Lerner P. Waldron	J. Spacecraft <u>4</u> , 1448 (1967), DDC AD-663685
2916	Heat Flow in High-Temperature Crystal Growth	T. B. Reed	<u>Crystal Growth</u> (Pergamon, New York, 1967)
2922A	A Theoretical Analysis and Experimental Confirmation of the Optimally Loaded and Overdriven RF Power Amplifier	D. M. Snider	IEEE Trans. Electron Devices <u>ED-14</u> , 851 (1967), DDC AD-670765
2937	Sulfur Donor Level Associated with (100) Conduction Band of GaSb	B. B. Kosicki W. Paul A. J. Strauss G. W. Iseler	Phys. Rev. Letters <u>17</u> , 1175 (1966)
2941	Retrograde Solubility of Lead in n-Type PbS	A. J. Strauss	Trans. Met. Soc. AIME <u>239</u> , 794 (1967), DDC AD-661148
2949	The Overdriven Varactor Upper Sideband Upconverter	A. I. Grayzel	IEEE Trans. Microwave Theory Tech. <u>MTT-15</u> , 561 (1967)
2965	Identification of the Fundamental Vibrational Modes of Trigonal, α -Monoclinic and Amorphous Selenium	G. Lucovsky A. Mooradian W. Taylor G. B. Wright R. C. Keezer	Solid State Commun. <u>5</u> , 113 (1967), DDC AD-698574

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2977	Interband Magnetoreflexion and Band Structure of HgTe	S. H. Groves R. N. Brown C. R. Pidgeon	Phys. Rev. <u>161</u> , 779 (1967), DDC AD-663308
2989	A Thermodynamic Investigation of the Compounds In_3SbTe_2 , InSb, and InTe	A. K. Jena M. B. Bever M. D. Banus	Trans. Met. Soc. AIME <u>239</u> , 1232 (1967), DDC AD-701240
3000	Phasers and Time Delay Elements	W. J. Ince D. H. Temme	<u>Advances in Microwaves</u> , Vol. 4, L. Young, editor (Academic Press, New York, 1969)
3002	Redistribution of Electrons in Secondary Emission Devices	A. A. Braga-Illa	Alta Frequenza <u>36</u> , 464 (1967), DDC AD-698575
3010	What is the Fast Fourier Transform?	C. M. Rader, <u>et al.</u>	IEEE Trans. Audio Electroacoust. <u>AU-15</u> , 45 (1967); Proc. IEEE <u>55</u> , 1664 (1967)
3012	A General Model of a Single-Channel Queue: Discrete and Continuous Time Cases	J. U. Beusch	Operations Res. <u>15</u> , 1131 (1967)
3013	Iterative Sequential Decoding	I. G. Stiglitz	IEEE Trans. Inform. Theory <u>IT-15</u> , 715 (1969), DDC AD-703488
3076	Spark-Source Mass Spectrometry	E. B. Owens	<u>McGraw-Hill Yearbook of Science and Technology</u> (1968)
3083	Changes in the Work Function of Aluminum During and Following Low Pressure Oxidation at Room Temperature	E. E. Huber, Jr. C. T. Kirk, Jr.	Surface Sci. <u>8</u> , 458 (1967), DDC AD-698576
3094	Beam Steering Increments for a Phased Array	J. Frank J. Ruze	IEEE Trans. Antennas Propag. <u>AP-15</u> , 820 (1967)
3101	The Combined Use of Digital Computers and Coherent Optics in Image Processing	T. S. Huang H. L. Kasnitz	Proc. Computerized Imaging Techniques Seminar, Washington, D. C., June 1967
3154	Magnetic Ordering and the Electronic Properties of the Heavy Rare-Earth Metals	R. E. Watson A. J. Freeman J. O. Dimmock	Phys. Rev. <u>167</u> , 497 (1968), DDC AD-697226
3157	Mutual Coupling in Infinite Planar Arrays of Rectangular Waveguide Horns	G. F. Farrell D. H. Kuhn	IEEE Trans. Antennas Propag. <u>AP-16</u> , 405 (1968)
3158	Automatic Satellite Station-Keeping	A. A. Braga-Illa	J. Spacecraft <u>6</u> , 430 (1969), DDC AD-696238
3171	Adaptive Equalizer for Pulse Transmission	C. W. Niessen D. K. Willim	IEEE Trans. Commun. Tech. <u>COM-18</u> , 377 (1970), DDC AD-714737

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|-------|---|---|---|
| 3173A | Statistical Thermodynamics of Nonstoichiometry in Non-metallic Binary Compounds | R. F. Brebrick | J. Solid State Chem. <u>1</u> , 88 (1969), DDC AD-694904 |
| 3174 | Quartz Laser Operates Via Stimulated Raman Scattering | P. E. Tannenwald
F. H. Perry | Laser Focus <u>3</u> , 23 (1967) |
| 3182 | Microseisms: Mode Structure and Sources | M. N. Toksöz
R. T. Lacoss | Science <u>159</u> , 872 (1968), DDC AD-698577 |
| 3183 | Radar Astronomy | G. H. Pettengill | Chap. 33 in <u>Radar Handbook</u> (McGraw-Hill, New York, 1970) |
| 3193 | Long-Period Signal Processing Results for the Large Aperture Seismic Array | J. Capon
R. J. Greenfield
R. T. Lacoss | Geophysics <u>34</u> , 305 (1969), DDC AD-694326 |
| 3194 | Ferromagnetic Properties of Films | M. S. Cohen | Chap. 17 in <u>Handbook of Thin Film Technology</u> (McGraw-Hill, New York, 1970) |
| 3204 | Radar Studies of the Moon | J. V. Evans
T. Hagfors | <u>Advances in Astronomy and Astrophysics</u> , Vol. 8 (Academic Press, New York, 1971), pp. 29-105 |
| 3205 | Orbit Determination from the Satellite | A. A. Braga-Illa | J. Spacecraft <u>6</u> , 232 (1969), DDC AD-699266 |
| 3228 | Isotope Shift and Hyperfine Structure of the Neutron-Deficient Thallium Isotopes | D. Goorvitch
S. P. Davis
H. Kleiman | Phys. Rev. <u>188</u> , 1897 (1969), DDC AD-707570 |
| 3233 | The Feasibility of Locating Waveguide Arcs by Sound Ranging | A. Browne | IEEE Trans. Microwave Theory Tech. <u>MTT-16</u> , 894 (1968), DDC AD-698578 |
| 3238 | Magnetic Devices | J. I. Raffel | Chap. 21 in <u>Handbook of Thin Film Technology</u> (McGraw-Hill, New York, 1970) |
| 3242 | Nonlinear Filtering of Multiplied and Convolved Signals | A. V. Oppenheim
R. W. Schafer
T. G. Stockham, Jr. | Proc. IEEE <u>56</u> , 1264 (1968), DDC AD-680159 |
| 3252 | A Gradient Method for Systems with Time Delays and Its Application to Waveform Design | R. J. McAulay | IEEE Trans. Automatic Control <u>AC-14</u> , 230 (1969), DDC AD-696873 |
| 3258 | An Electromagnetic Attitude Control System for a Synchronous Satellite | W. L. Black
B. Howland
E. A. Vrablik | J. Spacecraft <u>6</u> , 795 (1969), DDC AD-696878 |
| 3269 | Diagnosis of Single-Gate Failures in Combinational Circuits | G. D. Hornbuckle
R. N. Spann | IEEE Trans. Computers <u>C-18</u> , 216 (1969), DDC AD-694895 |

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1386	500-Mc Micrologic Circuits and an Experimental Digital System	Y. Cho J. B. Connolly E. P. Edelson J. Liu E. Tammaru N. S. Zembel	Proc. IFIP Cong., New York, May 1965
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1678	The Lincoln Reckoner: An Operation-Oriented, On-Line Facility with Distributed Control	A. N. Stowe R. A. Wiesen D. B. Yntema J. W. Forgie	Proc. Fall Joint Computer Conf., San Francisco, Nov. 1966
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1802A	Maser Dewar for System Operation	A. M. Rich W. A. Peterson	<u>Advances in Cryogenic Engineering</u> , Vol. 13 (Plenum, New York, 1968)
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2013	Inversion Asymmetry Splittings from Oscillatory Magnetoresistance in HgSe	S. H. Groves L. M. Roth P. W. Wyatt	<u>II-VI Semiconducting Compounds</u> , D. G. Thomas, Ed. (W. A. Benjamin, New York, 1967)
2014	Low-Temperature Reflection and Electrorreflection Study of Interband Magneto-Optical Transitions in HgTe	C. R. Pidgeon S. H. Groves	<u>II-VI Semiconducting Compounds</u> , D. G. Thomas, Ed. (W. A. Benjamin, New York, 1967)
2024	The Raman Spectrum of Trigonal, α -Monoclinic and Amorphous Selenium	A. Mooradian G. B. Wright	<u>The Physics of Selenium and Tellurium</u> (Pergamon, New York, 1969), DDC AD-694135
2038	Resonance Phenomena in Waveguide Arrays	B. L. Diamond	IEEE Int'l. Antennas Propag. Symp. Digest, Ann Arbor, Oct. 1967
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2047	Coherent Programming in the Lincoln Reckoner	R. A. Wiesen D. B. Yntema J. W. Forgie A. N. Stowe	<u>Interactive Systems for Experimental Applied Mathematics</u> (Academic Press, New York, 1968)
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2062	Transhorizon Propagation Effects on Siting Satellite Stations	R. K. Crane	NEREM Record (1967), DDC AD-698570
2071	An Autotracking CO ₂ Laser Radar	H. A. Bostick A. H. M. Ross	NEREM Record (1967), DDC AD-697224
2075	Band and Transport Parameters of Hg-Chalcogenides	T. C. Harman	<u>II-VI Semiconducting Compounds</u> , D. G. Thomas, Ed. (W. A. Benjamin, New York, 1967)
2076	Metal Space Frame Radome Design	R. D'Amato	<u>Structures Technology for Large Radio and Radar Telescope Systems</u> , J. W. Mar and H. Liebowitz, Eds. (M.I.T. Press, Cambridge, 1969)

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2135	The Status of On-Line Circuit Design	H. B. Lee	NEREM Record (1967)
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2160	Theory of Non-Thermal Emission from Interstellar OH	A. E. E. Rogers	<u>Interstellar Ionized Hydrogen</u> , Y. Terzian, Ed. (W. A. Benjamin, New York, 1968)
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2331	Raman Scattering from Spin-Density Fluctuations in n-GaAs	D. C. Hamilton A. L. McWhorter	<u>Light Scattering Spectra of Solids, Proc. Int'l. Conf. Light Scattering Spectra of Solids</u> (Springer-Verlag, New York, 1969), DDC AD-695754
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2334	Landau Level Raman Scattering	G. B. Wright P. L. Kelley S. H. Groves	<u>Light Scattering Spectra of Solids, Proc. Int'l. Conf. Light Scattering Spectra of Solids</u> (Springer-Verlag, New York, 1969), DDC AD-695751

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2340	Tin Doping of Epitaxial Gallium Arsenide	C. M. Wolfe G. E. Stillman W. T. Lindley	Proc. Symp. on GaAs, Dallas, Oct. 1968, DDC AD-694909
2346	The Radiation Pattern of a Biconical Antenna with a Finite Source Region	D. Parker	IEEE Int'l. Antennas Propag. Symp. Digest, Boston, Sept. 1968
2350	Experiments with a CO ₂ Laser Radar System	H. A. Bostick	Proc. 13th Annual Technical Symp. Soc. Photo-Optical Instrumentation Engineers, Washington, Aug. 1968, DDC AD-707810
2351	A 48-Inch Telescope/Spectrograph for Reentry Measurements	R. R. Billups	Proc. 13th Annual Technical Symp. Soc. Photo-Optical Instrumentation Engineers, Washington, Aug. 1968, DDC AD-707811
2352	Optical Measurements and Information on the PRESS KC-135 Aircraft	H. O. Curtis	Proc. 13th Annual Technical Symp. Soc. Photo-Optical Instrumentation Engineers, Washington, Aug. 1968, DDC AD-707812
2353	The Use of Image Intensifiers in Radiometric Measurements	J. Rotstein F. W. Cramer	Proc. 13th Annual Technical Symp. Soc. Photo-Optical Instrumentation Engineers, Washington, Aug. 1968, DDC AD-708596
2357	A New Fabrication Technique Using Beam Leaded Substrates	R. E. McMahon R. Cohen	NEREM Record (1968), DDC AD-698574
2358	IM and Switching Noise of a Pin Diode Switch in the UHF Band	R. N. Assaly R. L. Sicotte	NEREM Record (1968), DDC AD-698572
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2376	Radar Meteorological Applications of Automatic Film Reading	R. K. Crane A. R. Whitney	Proc. 13th Annual Technical Symp. Soc. Photo-Optical Instrumentation Engineers, Washington, Aug. 1968; SPIE J. <u>9</u> , 46 (1971), DDC AD-708593

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2434	Effect of External Stress on Remanence Ratios and Anisotropy Fields of Magnetic Materials	G. F. Dionne	IEEE Trans. Magnetics <u>MAG-5</u> , 596 (1969), DDC AD-703524
2435	Lithium Ferrite for Microwave Latching Ferrite Devices	D. H. Temme	IEEE Trans. Magnetics <u>MAG-5</u> , 632 (1969)
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2457	The Fabrication of Microsound Components	H. I. Smith	IEEE Int'l. Conv. Digest (1969), DDC AD-707816
2459	A Low-Cost Latching Ferrite Phaser Fabrication Technique	D. H. Temme R. L. Huntt R. G. West A. C. Blankenship	IEEE Int'l. Microwave Symp. Digest, Dallas, May 1969, DDC AD-707864
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2474A	High-Resolution Wavenumber Analysis for Seismic Data	J. Capon	NEREM Record (1969)
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2506	Structural, Electrical and Magnetic Properties of Vacancy Stabilized Cubic 'TiO' and 'VO'	M. D. Banus T. B. Reed	<u>The Chemistry of Extended Defects in Non-Metallic Solids</u> (North-Holland, Amsterdam, 1970), DDC AD-707565
2511	Preliminary Report on the Orbital Operation of the Automatic Stationkeeping System of LES-6	A. Braga-Illa	Proc. AIAA Guidance, Control, and Flight Mechanics Conf., Princeton, Aug. 1969, DDC AD-694299
2515	Evidence for a Continuous Sequence of Structures in the Bi-Te System	R. F. Brebrick	<u>The Chemistry of Extended Defects in Non-Metallic Solids</u> (North-Holland, Amsterdam, 1970), DDC AD-707580

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2546	A Review of the State-of-the-Art of Surface Acoustic Wave Technology	E. Stern	IEEE Int'l. Microwave Symp. Digest, Dallas, May 1969
2549	Photoresponse Properties of InSb MOS Devices	W. E. Krag R. J. Phelan, Jr. J. O. Dimmock	<u>Proc. Third Photoconductivity Conf.</u> , Stanford, Aug. 1969, E. M. Pell, Ed. (Pergamon, New York, 1971), DDC AD-729560
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2610	The Physics and Technology of Surface Elastic Waves	H. I. Smith	Int'l. J. Nondestructive Testing <u>2</u> , 31 (1970), DDC AD-714319
2612	A Flexible Automated Mask Generation System	N. B. Childs	NEREM Record (1969)
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2614	Signal Processing Hardware for General Purpose Computers	B. Gold	NEREM Record (1969), DDC AD-707829
2615	Magneto-Optics	J. G. Mavroides	Proc. Int'l. Conf. High Magnetic Fields and Their Applications, Nottingham, Sept. 1969
2616	Floating Point Roundoff Noise in Digital Filters and FFT	C. J. Weinstein	NEREM Record (1969)
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2623	Laser Beam Trapping and Non-linear Interactions in Semiconductors	A. Mooradian	NEREM Record (1969), DDC AD-704461
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2644	Linear Wave-Vector Dispersion of the Shear-Wave Phase Velocity in α -Quartz	A. S. Pine	J. Acoust. Soc. Am. <u>49</u> , Pt. 3, 1026 (1974), DDC AD-729588
2651	Three Axis Attitude Control of a Synchronous Communications Satellite	J. U. Beusch F. W. Floyd C. H. Much V. J. Sferrino N. P. Smith	Proc. AIAA 3rd Communications Satellite Systems Conf., Los Angeles, Apr. 1970, DDC AD-707472
2652	The Future of Self-Contained Control of Synchronous Orbits	A. A. Braga-Illa	Proc. AIAA 3rd Communications Satellite Systems Conf., Los Angeles, Apr. 1970, DDC AD-707489
2653	Variable-Coverage Communications Antenna for LES-7	A. R. Dion	Proc. AIAA 3rd Communications Satellite Systems Conf., Los Angeles, Apr. 1970, DDC AD-707477
2654	The TATS Master - A Net Controller for Tactical Satellite Communications	L. M. Goodman S. B. Russell	Proc. AIAA 3rd Communications Satellite Systems Conf., Los Angeles, Apr. 1970, DDC AD-707479
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2663	Multiplet Structure in the Reflectance Spectra of Europium Chalcogenides	J. O. Dimmock J. Hanus J. Feinleib	J. Appl. Phys. <u>41</u> , 1088 (1970), DDC AD-709753
2664	Eigenvalue Degeneracy as a Possible "Mathematical Mechanism" for Phase Transitions	H. E. Stanley M. Blume K. Matsuno S. Milošević	J. Appl. Phys. <u>41</u> , 1278 (1970)
2666	Magnetic and Optical Properties of the High- and Low-Pressure Forms of CsCoF_3	J. M. Longo J. A. Kafalas J. R. O'Connor J. B. Goodenough	J. Appl. Phys. <u>41</u> , 935 (1970), DDC AD-709745
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