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ESD-TR-79-318

LEVEL III

(12)

Prepared under Electronic Systems Division
Contract F19628-80-C-0002 by

Lincoln Laboratory

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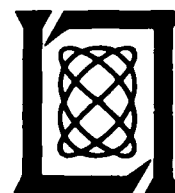
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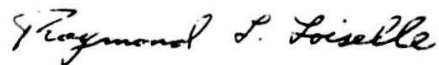
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FOR THE COMMANDER

A handwritten signature in cursive script that reads "Raymond L. Loiselle".

Raymond L. Loiselle, Lt. Col., USAF
Chief, ESD Lincoln Laboratory Project Office

FOREWORD

Volume 7 of Unclassified Publications of Lincoln Laboratory lists reports published from 15 December 1977 to 15 December 1979, as well as updated information on earlier publications.

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15 September 1966	AD-803845	15 December 1973	AD-778085/1
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526	Modal analysis of SAW Convolver	K.L. Wang	13 Jan. 1978	AD-A056809/7
527	A Quasi-Two-Dimensional Aerodynamic Force Model for Star-Shaped Bodies at Hypersonic Velocities	J.R. Baron J.E. Libby	10 Mar. 1978	AD-A059086/9
528	Millstone Hill Thomson Scatter Results for 1971	J.V. Evans B.A. Emery J.M. Holt	24 Mar. 1978	
530	Millstone Hill Thomson Scatter Results for 1972	J.V. Evans J.M. Holt	18 Sept. 1978	
531	Incoherent Scatter Measurements of E- and F-Region Density, Temperatures, and Collision Frequency at Millstone Hill	W.L. Oliver J.E. Salah R.H. Wand J.V. Evans	23 Feb. 1979	
532	Local Site Distortion Model of Magnetostriction	G.F. Dionne	29 Nov. 1978	AD-A066250/2
533	Orientation of Crystalline Overlayers on Amorphous Substrates by Artificially Produced Surface Relief Structures	D.C. Flanders	5 Dec. 1978	AD-A071168/9
534	Magnetic Moment Versus Temperature Curves of Rare-Earth Iron Garnets	G.F. Dionne	11 July 1979	AD-A077356/4
535	Digital Encoding of Speech and Audio Signals Based on the Perceptual Requirements of the Auditory System	M.A. Krasner	18 June 1979	AD-A077355/6
536, Part I	Optimal Firing Policy for the Defense. Part I: Confirmation Option	A.A. Grometstein	6 July 1979	AD-A077274/9
537	Millstone Hill Thomson Scatter Results for 1973	J.V. Evans R.R. Babcock, Jr. J.M. Holt	22 Oct. 1979	
538	Alignment of Liquid Crystals by Surface Gratings	D.C. Shaver	31 Oct. 1979	AD-A086816

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1978-2, Vol. 1	On-Board Satellite Signal Processing	L.S. Metzger	31 Jan. 1978	AD-A052768/9
1978-4	Flywheel Components for Satellite Applications	A.R. Millner	16 May 1978	AD-A060586/5
1978-5	Configuration Tradeoffs for Satellite Nulling Arrays	M.L. Burrows J.T. Mayhan	21 Nov. 1978	AD-A065287
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1978-29	The Monopulse Performance of an Optical Heterodyne Detector with Varying LO Distributions	R.J. Sasiela	21 Dec. 1978	AD-A066253/6

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1978-30	The Plate Overlap Technique	L.G. Taff	31 July 1978	AD-A059895/3
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1978-33	Computer Simulation Model for a Digital Communications Network Utilizing an Embedded Speech Encoding Technique	S. Seneff	20 Oct. 1978	AD-A065102/8
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1978-37	Rotating Bodies and Their Lightcurves	L.G. Taff	3 Nov. 1978	AD-A063502/9
1978-38	A Method for Identifying Differences Between Two Classes	N.E. Lindgren	29 Nov. 1978	AD-A064724/8
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1978-41	Data Traffic Performance of an Integrated Circuit- and Packet-Switched Multiplex Structure	C.J. Weinstein M.L. Malpass M.J. Fischer	26 Oct. 1978	AD-A065449/1
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1979-8	A UHF Test Simulator for an Antenna Nulling System	W.C. Cummings T.P. Robbio W.C. Provencher J.E. Drover M. Singhal	7 June 1979	AD-A082853/3
1979-11	Transconductance Multipliers for Weight Circuits in an Adaptive Nulling System	J.N. Wright	1 June 1979	AD-A081796/5
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1979-14	Factors Affecting the Performance of Adaptive Antenna Systems and Some Evaluation Techniques	J.T. Mayhan F.W. Floyd	9 Aug. 1979	AD-A081711/4
1979-15	Some Effects of Hard Limiting in Adaptive Antenna Systems	F.W. Floyd, Jr. J.T. Mayhan	1 Oct. 1979	AD-A080531/7
1979-17	Image Restoration by Short Space Spectral Subtraction	J.S. Lim	20 Feb. 1979	AD-A070382/7
1979-21	Experimental Measurements of Ground Reflection Elevation Multipath Characteristics and Its Effects on a Small Aperture Elevation Tracking Radar	D.F. Sun	5 Mar. 1979	AD-A077915/7
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1979-23	Characterization of Transconductance Multiplier Weight Circuits for an Adaptive Antenna System	B.C. Levens	22 June 1979	AD-A080491/4
1979-24	Correlation Techniques for Deep Space "Uncorrelated Targets"	R. Sridharan W.P. Seniw A. Freed	13 Mar. 1979	AD-A071014/5
1979-25	An Intermediate-Averaged Theory for High Altitude Orbits	R. Sridharan W.P. Seniw	27 June 1979	AD-A073094/5

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1979-26	PIN Diode Weight Circuits	B.M. Potts	28 Dec. 1979	AD-A083992/8
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1979-36	A Reflection Coefficient Transforming Circuit for Phase Shifters	H.A. Atwater	22 Oct. 1979	AD-A080490/6
1979-38	Differential Orbit Correction for Near-Stationary Artificial Satellites	L.G. Taff J.M. Sorvari	17 July 1979	AD-A074231/2
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1979-43	Accuracy of Parameter Estimates for Closely Spaced Optical Targets	K-P. Dunn	13 June 1979	AD-A073093/7
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1979-48	Detectability of Cold Rocket Plumes	G.F. Dionne M.M. Litvak J.A. Weiss W.D. Fitzgerald	11 Oct. 1979	AD-A081858/3
1979-49	On Gauss's Method of Orbit Determination	L.G. Taff	21 June 1979	AD-A073776/7
1979-50	A Physicist's Guide to J_2	L.G. Taff	3 Aug. 1979	AD-A080492/2
1979-51	Enhancement and Bandwidth Compression of Noisy Speech	J.S. Lim A.V. Oppenheim	26 June 1979	AD-A073139/8
1979-52	Restoration of Speckle Images	J.S. Lim H. Nawab	3 July 1979	AD-A074626/3
1979-55	Geometry, Artificial Satellites, and Orbit Determination	L.G. Taff	4 Sept. 1979	AD-A077049/5
1979-56	Millstone Hill Exospheric Temperature Models	W.L. Oliver	30 July 1979	
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1979-61	Photometry of Artificial Satellites Application to the Ground Electro-Optical Deep Space Surveillance (GEODSS) Program	J.M. Sorvari	9 Oct. 1979	AD-A078675/6
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1979-75	Prediction and Buffering of Digital Speech Streams for Improved TASI Performance on a Demand-Assigned Satellite Channel	W. Kantrowitz C.J. Weinstein E.M. Hofstetter	15 Nov. 1979	AD-A081593/6
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1979-84	A Distributed Processor Architecture for BMD Signal and Data Processing Applications	R.L. South R.J. Purdy	21 Dec. 1979	AD-A082725/3

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| 4415 | On the Wigner Distribution Function for an Oscillator | R.W. Davies
K.T.R. Davies | Ann. Phys. 89, 261 (1975), DDC AD-A050670 |
| 4580 | Ionospheric Scintillation | R.K. Crane | Proc. IEEE 65, 180 (1977), DDC AD-A063208/3 |
| 4598 | Bandwidth Specification for Adaptive Optics Systems | D.P. Greenwood | J. Opt. Soc. Am. 67, 390 (1977), DDC AD-A063205/9 |
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| 4624 | ELF Communications Antennas | M.L. Burrows | Book - IEE Electromagnetic Waves Series, Vol. 5 (P. Peregrinus Ltd., Stevenage, England, 1978) |
| 4627 | Scattering by Multilayered Lossy Periodic Strips With Application to Artificial Dielectrics | L.L. Tsai
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| 4639 | Communication Satellite Antennas | L.J. Ricardi | Proc. IEEE 65, 356 (1977), DDC AD-A063415/4 |
| 4640 | Fabrication Techniques for Surface Wave Devices | H.I. Smith | Chapter 7 in <u>Topics in Applied Physics, Vol. 24, Acoustic Surface Waves</u> (Springer-Verlag, Berlin, 1978), pp. 305-322 |
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| 4659 | The Dynamics of Air Breakdown Initiated by a Particle in a Laser Beam | D.E. Lencioni
L.C. Pettingill | J. Appl. Phys. 48, 1848 (1977), DDC AD-A063420/4 |
| 4662 | Recovery of Undersampled Periodic Waveforms | C.M. Rader | IEEE Trans. Acoust., Speech, and Signal Processing ASSP-25, 242 (1977), DDC AD-A063207/5 |

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R.G. North | Bull. Seismol. Soc. Am. 68, 265 (1978), DDC AD-A060928/9 |
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W.T. Lindley | IEEE Trans. Microwave Theory Tech. MTT-25, 494 (1977), DDC AD-A063204/2 |
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| 4682 | A Sequential Approach to Target Discrimination | C.W. Therrien | IEEE Trans. Aerospace Electron. Systems AES-14, 433 (1978), DDC AD-A060927/1 |
| 4687 | Evidence for Anisotropic Scattering of Short-Period P Phases in the Upper Mantle | D.K. Chowdhury
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| 4688 | Incoherent Scatter Contributions to Studies of the Dynamics of the Lower Thermosphere | J.V. Evans | Revs. Geophys. Space Phys. 16, 195 (1978) |
| 4689 | A Modified Cramér-Rao Bound and its Applications | R.W. Miller
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4695	Digital Speech Networks	B. Gold	Proc. IEEE 65, 1636 (1977), DDC AD-A054568/1
4697	Advances in CO ₂ Laser Stabilization Using the 4.3 μ m Fluorescence Technique	C. Freed R.G. O'Donnell	Metrologia 13, 151 (1977)
4698	Some Geophysical Applications of Autoregressive Spectral Estimates	T.E. Landers R.T. Lacoss	IEEE Trans. Geosci. Electron. GE-15, 26 (1977), DDC AD-A063418/8
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G.L. Carayannopoulos
A.A. Grometstein
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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER ESD-TR-79-318	2. GOVT ACCESSION NO. AD A101 092	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Unclassified Publications of Lincoln Laboratory - Volume 7	5. TYPE OF REPORT & PERIOD COVERED Bibliography, 15 December 1977 to 15 December 1979	6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Publications Office	8. CONTRACT OR GRANT NUMBER(s) F19628-80-C-0002	
9. PERFORMING ORGANIZATION NAME AND ADDRESS Lincoln Laboratory, M.I.T. P.O. Box 73 Lexington, MA 02173	10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS None	
11. CONTROLLING OFFICE NAME AND ADDRESS Air Force Systems Command, USAF Andrews AFB Washington, DC 20331	12. REPORT DATE 15 December 1979	13. NUMBER OF PAGES 86
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office) Electronic Systems Division Hanscom AFB Bedford, MA 01731	15. SECURITY CLASS. (of this report) Unclassified	15a. DECLASSIFICATION DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for public release; distribution unlimited.		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES None		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Bibliography		
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