

**Unclassified Publications
of Lincoln Laboratory
1 January — 31 December 1995**

Volume 21

31 December 1995

Lincoln Laboratory

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

LEXINGTON, MASSACHUSETTS



Prepared under Air Force Contract F19628-95-C-0002.

DTIC QUALITY INSPECTED 9

19961009 118

Approved for public release; distribution is unlimited.

UNCLASSIFIED PUBLICATIONS
OF
LINCOLN LABORATORY
1 JANUARY — 31 DECEMBER 1995

VOLUME 21

Compiled by
JOANNE MASTRULLO
PATRICIA A. MEANS
ROBERT C. SEIDEL

31 DECEMBER 1995

ISSUED 26 SEPTEMBER 1996

Requests for information should be directed to:
Lincoln Laboratory
Massachusetts Institute of Technology
244 Wood Street
Lexington, Massachusetts 02173-9108
ATTENTION: Report Distribution Office, L-345

Approved for public release; distribution is unlimited.

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

LEXINGTON

MASSACHUSETTS

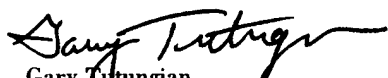
This report is based on studies performed at Lincoln Laboratory, a center for research operated by Massachusetts Institute of Technology. The work was sponsored by the Department of the Air Force under Contract F19628-95-C-0002; in some cases, the work was supported under other contracts.

This report may be reproduced to satisfy needs of U.S. Government agencies.

The ESC Public Affairs Office has reviewed this report, and it is releasable to the National Technical Information Service, where it will be available to the general public, including foreign nationals.

This technical report has been reviewed and is approved for publication.

FOR THE COMMANDER


Gary Tutungian
Administrative Contracting Officer
Contracted Support Management

FOREWORD

Volume 21 of Unclassified Publications of Lincoln Laboratory lists reports published from 1 January to 31 December 1995, as well as updated information on earlier publications.

Documents listed herein are generally no longer available from Lincoln Laboratory. Qualified Defense Technical Information Center (DTIC) users may purchase copies through normal DTIC channels. Others may purchase photocopies or microfiche from the U.S. Department of Commerce, National Technical Information Service, Springfield, Virginia 22161. When ordering, the six-digit AD number should be cited.

ACKNOWLEDGMENTS

The Library and Information Services Group and the Publications Group made this publication possible. The contributions from others who worked on this publication are greatly appreciated.

TABLE OF CONTENTS

Foreword	iii
Acknowledgments	v
Lincoln Laboratory Journal	1
Quarterly Technical Reports	1
Miscellaneous Progress Reports	3
Technical Reports	5
Journal Articles	7
Meeting Speeches	19
Author Index	37
Subject Index	43

LINCOLN LABORATORY JOURNAL

Fall 1994

Vol. 7, No. 2

Spring/Fall 1995

Vol. 8, No. 1

QUARTERLY TECHNICAL REPORTS

SOLID STATE RESEARCH

	DTIC No.
1994:3	ADA293083
1994:4	ADA295123
1995:1	ADA298813
1995:2	ADA302336

MISCELLANEOUS PROGRESS REPORTS

UNCLASSIFIED PUBLICATIONS OF LINCOLN LABORATORY (Previous Volumes)

	DTIC No.
15 September 1966	AD803845
15 September 1969	AD863031
15 September 1971	AD734038
15 December 1973	AD778085
15 December 1975	ADA028523
15 December 1977	ADA062413
15 December 1979	ADA101092
15 December 1981	ADA129036
15 December 1983	ADA144354
31 December 1984	ADA161752
31 December 1985	ADA167987
31 December 1986	ADA187252
31 December 1987	ADA204729
31 December 1988	ADA212589
31 December 1989	ADA228219
31 December 1990	ADA236798
31 December 1991	ADA252852
31 December 1992	ADA265156
31 December 1993	ADA280530
31 December 1994	ADA306272

TECHNICAL REPORTS

TR No.				DTIC No.
1006	Progress Report on the Development of the Automatic Target Recognition System for the UGV/RSTA LADAR	Verly, J.G. Dudgeon, D.E. Lacoss, R.T.	21 Mar. 1995	ADA294090
1008	Physical Optics Polarization Scattering Matrix for a Right-Angle Dihedral	Verly, J.G.	7 Feb. 1995	ADA293036
1009	Graphical Analysis of Hidden Markov Model Speech Recognition Experiments	Seward, D.C. IV Zissman, M.A.	25 Oct. 1995	ADA300991
1010	Language Identification Through Parallel Phone Recognition	Chou, C.S. Zissman, M.A.	19 May 1995	ADA295381
1017	Machine Learning for a Toolkit for Image Mining	Delanoy, R.L. Sasiela, R.J.	6 Mar. 1995	ADA293137
1018	Infrared Detections of Satellites with IRAS	Gaposchkin, E.M. Bergemann, R.J.	26 Sep. 1995	
1019	Bragg Resonance in Measured L-Band Radar Clutter Doppler Spectra from Inland Water	Billingsley, J.B. Larrabee, J.F.	1 Aug. 1995	ADA297680
1020	A Satellite Anomaly Detection System that Uses Signatures from the Space-Surveillance Network of Sensors	Raup, R.C. Stuart, J.S. Curtis, J.W.	7 Sep. 1995	ADA298814
1021	A Strategy for Higher Temperature Superconductivity in the Layered Cuprates	Dionne, G.F.	10 July 1995	ADA296885

Technical Reports

TR No.				DTIC No.
1022	A Metric Analysis of IRAS Resident Space Object Detections	Lane, M.T. Baldassini, J.F. Gaposchkin, E.M.	1 Nov. 1995	ADA302289
1023	A Combat Identification Model for Netted Theater Air Defense Systems	Weiner, S.D. Cebula, D.P.	27 Nov. 1995	ADA301812
1024	Temperature Dependence of Large Polaron Superconductivity	Dionne, G.F.	18 July 1995	ADA296885

JOURNAL ARTICLES

JA No.

- | | | | |
|------|--|--|---|
| 6800 | Adaptive Array CFAR Detection | Kalson, S.Z. | IEEE Trans. Aerosp. Electron. Syst., Vol. 31, No. 2, April 1995, pp. 534-542 |
| 6853 | Laser Physics | Kelley, P.L.
Zayhowski, J.J. | Chapter in <i>Encyclopedia of Applied Physics</i> , Vol. 8, 1994, pp. 299-320 |
| 6920 | Spatial-Temporal Detection of Electro-Optic Moving Targets | Pohlig, S.C. | IEEE Trans. Aerosp. Electron. Syst., Vol. 31, No. 2, April 1995, pp. 608-616 |
| 6926 | LTPSK: Simple, Bandwidth Efficient Modulation for Multi-Rate Satellite Channels | McGuffin, B.F.
Rhodes, R.R. | IEEE Trans. Commun., Vol. 43, No. 2/3/4, February/March/April 1995, pp. 386-395 |
| 6964 | Integrated AlGaAs Waveguide Components for Optical Phase Difference Measurement and Correction | Lau, S.D.
Donnelly, J.P.
Wang, C.A.
Rediker, R.H. | IEEE J. Quantum Electron., Vol. 30, No. 6, June 1994, pp. 1417-1426 |
| 6987 | Robust Text-Independent Speaker Identification Using Gaussian Mixture Speaker Models | Reynolds, D.A.
Rose, R.C. | IEEE Trans. Speech Audio Process., Vol. 3, No. 1, January 1995, pp. 72-83 |
| 7031 | Atmospheric-Compensation Experiments in Strong-Scintillation Conditions | Primmerman, C.A.
Price, T.R.
Humphreys, R.A.
Zollars, B.G.
Barclay, H.T.
Herrmann, J. | Appl. Opt., Vol. 34, No. 12, 20 April 1995, pp. 2081-2088 |

Journal Articles

JA No.

- | | | | |
|-------|--|--|---|
| 7033 | Measurement and Model for Correlating Phase and Baseband $1/f$ Noise in an FET | Martinez, R.D.
Oates, D.E.
Compton, R.C. | IEEE Trans. Microw. Theory Tech., Vol. 42, No. 11, November 1994, pp. 2051–2055 |
| 7036A | Efficient Computation of the Circular Error Probability (CEP) Integral | Shnidman, D.A. | IEEE Trans. Autom. Control, Vol. 40, No. 8, August 1995, pp. 1472–1474 |
| 7048 | Q -Switched Operation of Quasi-Three-Level Lasers | Nabors, C.D. | IEEE J. Quantum Electron., Vol. 30, No. 12, December 1994, pp. 2896–2901 |
| 7050 | Mosaic Diamond Substrates Approaching Single-Crystal Quality Using Cube-Shaped Diamond Seeds | Geis, M.W.
Efremow, N., Jr.
Susalka, R.
Twichell, J.C.
Snail, K.A.
Spiro, C.
Sweeting, B.
Holly, S. | Diamond Related Mater., Vol. 4, No. 1, December 1994, pp. 76–82 |
| 7063 | A New Face-Centered-Cubic Photonic Crystal for Microwave and Millimeter-Wave Applications | Brown, E.R.
Agi, K.N.
Dill, C. III
Parker, C.D.
Malloy, K.J. | Microw. Opt. Technol. Lett., Vol. 7, No. 17, 5 December 1994, pp. 777–779 |
| 7066 | High-Density Laser Linking of Metal Interconnect | Bernstein, J.B.
Ventura, T.M.
Radomski, A.T. | IEEE Trans. Compon. Packag. Manuf. Technol. A, Vol. 17, No. 4, December 1994, pp. 590–593 |
| 7074 | A Single Barrier Varactor Quintupler at 170 GHz | Räisänen, A.V.
Tolmunen, T.J.
Natzic, M.
Frerking, M.A.
Brown, E.R.
Grönqvist, H.
Nilsen, S.M. | IEEE Trans. Microw. Theory Tech., Vol. 43, No. 3, March 1995, pp. 685–688 |

Journal Articles

JA No.

- | | | | |
|------|--|---|---|
| 7085 | Experimental Investigations of Crack Trapping in Brittle Heterogeneous Solids | Mower, T.M.
Argon, A.S. | Mech. Mater., Vol. 19,
1995, pp. 343-364
ADA294720 |
| 7089 | A Self-Organizational Approach for Resolving Air Traffic Conflicts | Eby, M.S. | Linc. Lab. J., Vol. 7,
No. 2, Fall 1994,
pp. 239-254 |
| 7090 | 100-GHz Soliton Pulse Train Generation Using Soliton Compression of Two Phase Side Bands from a Single DFB Laser | Swanson, E.A.
Chinn, S.R.
Hall, K.L.
Rauschenbach, K.A.
Bondurant, R.S.
Miller, J.W. | IEEE Photonics Technol. Lett., Vol. 6,
No. 10, October 1994,
pp. 1194-1196 |
| 7093 | An Orthogonal-Transfer CCD Imager | Burke, B.E.
Reich, R.K.
Savoye, E.D.
Tonry, J.L. | IEEE Trans. Electron Devices, Vol. 41,
No. 12, December 1994,
pp. 2482-2484 |
| 7094 | Large Population Speaker Identification Using Clean and Telephone Speech | Reynolds, D.A. | IEEE Signal Process. Lett., Vol. 2, No. 3,
March 1995, pp. 46-48 |
| 7101 | Machine Intelligence for ATC Equipment Maintenance | Heggestad, H.M. | Linc. Lab. J., Vol. 7,
No. 2, Fall 1994,
pp. 255-270 |
| 7104 | Linearized Modulator for Suboctave-Bandpass Optical Analog Links | Betts, G.E. | IEEE Trans. Microw. Theory Tech., Vol. 42,
No. 12, December 1994,
pp. 2642-2649 |
| 7107 | Characteristics of the Quasi-Optical Reflection Circulator | Harris, N.W.
Dionne, G.F.
Weiss, J.A.
Lax, B. | IEEE Trans. Magn., Vol. 30, No. 6,
November 1994,
pp. 4521-4523 |

Journal Articles

JA No.

- | | | | |
|-------|---|---|--|
| 7110 | Tm:YVO ₄ Microchip Laser | Zayhowski, J.J.
Harrison, J.
Dill, C. III
Ochoa, J.R. | Appl. Opt., Vol. 34,
No. 3, 20 January 1995,
pp. 435-437 |
| 7112 | GPS-Squitter: System
Concept, Performance, and
Development Program | Orlando, V.A.
Knittel, G.H.
Boisvert, R.E. | Linc. Lab. J., Vol. 7,
No. 2, Fall 1994,
pp. 271-294 |
| 7115 | Laser Vibration Sensing | Kachelmyer, A.L.
Schultz, K.I. | Linc. Lab. J.,
Vol. 8, No. 1,
Spring/Summer 1995,
pp. 3-28 |
| 7116 | Optical Coherence
Tomography of the Human
Retina | Hee, M.R.
Izatt, J.A.
Swanson, E.A.
Huang, D.
Schuman, J.S.
Lin, C.P.
Puliafito, C.A.
Fujimoto, J.G. | Arch. Ophthalmol.,
Vol. 113, March 1995,
pp. 325-332 |
| 7118 | Optical Heterodyne
Detection and Microwave
Rectification up to 26 GHz
Using Quantum Well
Infrared Photodetectors | Liu, H.C.
Jenkins, G.E.
Brown, E.R.
McIntosh, K.A.
Nichols, K.B.
Manfra, M.J. | IEEE Electron Device
Lett., Vol. 16, No. 6,
June 1995,
pp. 253-255 |
| 7124 | Uniform Linear Arrays of
Strained-Layer
InGaAs-AlGaAs Quantum-Well
Ridge-Waveguide Diode
Lasers Fabricated by
ECR-IBAE | Woodhouse, J.D.
Wang, C.A.
Donnelly, J.P.
Tsang, D.Z.
Bailey, R.J.
Mull, D.E.
Rauschenbach, K.A.
Popov, O.A. | IEEE J. Quantum
Electron., Vol. 31,
No. 8, August 1995,
pp. 1357-1363 |
| 7127A | Stability and Timing
Maintenance in Soliton
Transmission and Storage
Rings | Moore, J.D.
Wong, W.S.
Haus, H.A. | Opt. Commun., Vol. 113,
Nos. 1-3,
15 December 1994,
pp. 153-175 |

Journal Articles

JA No.

- | | | | |
|-------|---|--|---|
| 7128 | Radar Detection Probabilities and Their Calculation | Shnidman, D.A. | IEEE Trans. Aerosp. Electron. Syst., Vol. 31, No. 3, July 1995, pp. 928-950 |
| 7131 | A Fiber Frequency Shifter with Broad Bandwidth, High Conversion Efficiency, Pump and Pump ASE Cancellation, and Rapid Tunability for WDM Optical Networks | Swanson, E.A.
Moores, J.D. | IEEE Photonics Technol. Lett., Vol. 6, No. 11, November 1994, pp. 1341-1343 |
| 7133 | Energy Onset Times for Speaker Identification | Quatieri, T.F.
Jankowski, C.R., Jr.
Reynolds, D.A. | IEEE Signal Process. Lett., Vol. 1, No. 11, November 1994, pp. 160-162 |
| 7139 | Mode S Data-Link Applications for General Aviation | Bussolari, S.R. | Linc. Lab. J., Vol. 7, No. 2, Fall 1994, pp. 313-328 |
| 7145A | Effects of Polarization and Resolution on the Performance of a SAR Automatic Target Recognition System | Novak, L.M.
Halversen, S.D.
Owirka, G.J.
Hiatt, M. | Linc. Lab. J., Vol. 8, No. 1, Spring/Summer 1995, pp. 49-68 |
| 7146 | Strained-Layer InGaAsP Diode Lasers with Tapered Gain Region for Operation at $\lambda = 1.3 \mu\text{m}$ | Groves, S.H.
Donnelly, J.P.
Walpole, J.N.
Woodhouse, J.D.
Missaggia, L.J.
Bailey, R.J.
Napoleone, A. | IEEE Photonics Technol. Lett., Vol. 6, No. 11, November 1994, pp. 1286-1288 |
| 7151 | A New Three-Terminal Switching Device | Cohen, S.S.
Raffel, J.I.
Knecht, J.M. | IEEE Electron Device Lett., Vol. 16, No. 3, March 1995, pp. 115-117 |

Journal Articles

JA No.

- | | | | |
|------|--|---|--|
| 7152 | The Three-Terminal Fuse: A New Switching Device | Cohen, S.S. | IEEE Trans. Electron Devices, Vol. 42, No. 7, July 1995, pp. 1352–1355 |
| 7154 | Photomixing up to 3.8 THz in Low-Temperature-Grown GaAs | Brown, E.R.
McIntosh, K.A.
Nichols, K.B.
Dennis, C.L. | Appl. Phys. Lett., Vol. 66, No. 3, 16 January 1995, pp. 285–287 |
| 7155 | CH ₃ I Vapor Etching of Masked and Patterned GaAs | Krueger, C.W.
Wang, C.A.
Hsieh, D.
Flytzani-Stephanopoulos, M. | J. Cryst. Growth, Vol. 153, Nos. 3/4, 11 August 1995, pp. 81–89 |
| 7157 | A Comparison of Signal Processing Front Ends for Automatic Word Recognition | Jankowski, C.R., Jr.
Vo, H-D.H.
Lippmann, R.P. | IEEE Trans. Speech Audio Process., Vol. 3, No. 4, July 1995, pp. 286–293 |
| 7159 | 40-GHz Pulse Train Generation Using Soliton Compression of a Mach-Zehnder Modulator Output | Swanson, E.A.
Chinn, S.R. | IEEE Photonics Technol. Lett., Vol. 7, No. 1, January 1995, pp. 114–116 |
| 7160 | The Integrated Terminal Weather System Terminal Winds Product | Cole, R.E.
Wilson, F.W. | Linc. Lab. J., Vol. 7, No. 2, Fall 1994, pp. 475–502 |
| 7165 | Electron Field Emission from Diamond and Other Carbon Materials after H ₂ , O ₂ , and Cs Treatment | Geis, M.W.
Twichell, J.C.
Macaulay, J.
Okano, K. | Appl. Phys. Lett., Vol. 67, No. 9, 28 August 1995, pp. 1328–1330 |
| 7167 | High-Power, High-Temperature Operation of GaInAsSb-AlGaAsSb Ridge-Waveguide Lasers Emitting at 1.9 μ m | Choi, H-K.
Turner, G.W.
Connors, M.K.
Fox, S.
Dauga, C.
Dagenais, M. | IEEE Photonics Technol. Lett., Vol. 7, No. 3, March 1995, pp. 281–283 |

Journal Articles

JA No.

- | | | | |
|------|---|---|--|
| 7168 | Design of Ultrawideband Photonic Crystals for Broadband Antenna Applications | Agi, K.N.
Brown, E.R.
McMahon, O.B.
Dill, C. III
Malloy, K.J. | Electron. Lett.,
Vol. 30, No. 25,
8 December 1994,
pp. 2166-2167 |
| 7169 | Basic Module for an Integrated Optical Phase Difference Measurement and Correction System | Golubovic, B.
Donnelly, J.P.
Wang, C.A.
Goodhue, W.D.
Rediker, R.H. | IEEE Photonics Technol. Lett., Vol. 7,
No. 6, June 1995,
pp. 649-651 |
| 7170 | Toward Standard Figures-of-Merit for Spatial and Quasi-Optical Power-Combined Arrays | Gouker, M. | IEEE Trans. Microw. Theory Tech., Vol. 43,
No. 7, July 1995,
pp. 1614-1617 |
| 7171 | Equivalence of Adaptive Array Diagonal Loading and Omnidirectional Jamming | Carlson, B.D. | IEEE Trans. Antennas Propag., Vol. 43,
No. 5, May 1995,
pp. 540-541 |
| 7174 | Self-Aligned GaAs MISFET's with a Low-Temperature-Grown GaAs Gate Insulator | Chen, C-L.
Mahoney, L.J.
Nichols, K.B.
Manfra, M.J.
Gramstorff, B.F.
Molvar, K.M.
Murphy, R.A.
Brown, E.R. | IEEE Electron Device Lett., Vol. 16, No. 5,
May 1995,
pp. 199-201 |
| 7175 | Microwave Hysteretic Losses in $\text{YBa}_2\text{Cu}_3\text{O}_{7-x}$ and NbN Thin Films | Nguyen, P.P.
Oates, D.E.
Dresselhaus, G.
Dresselhaus, M.S.
Anderson, A.C. | Phys. Rev. B, Condens. Matter,
Vol. 51, No. 10,
1 March 1995,
pp. 6686-6695 |

Journal Articles

JA No.

- | | | | |
|------|---|---|--|
| 7180 | Direct Detection of Nucleic Acid Hybridization on the Surface of a Charge Coupled Device | Lamture, J.B.
Beattie, K.L.
Burke, B.E.
Eggers, M.D.
Ehrlich, D.J.
Fowler, R.
Hollis, M.A.
Kosicki, B.B.
Reich, R.K.
Smith, S.R.
Varma, R.S.
Hogan, M.E. | Nucleic Acids Res.,
Vol. 22, No. 11,
1994, pp. 2121–2125 |
| 7183 | High-Performance 770-nm AlGaAs-GaAsP Tensile-Strained Quantum-Well Laser Diodes | Agahi, F.
Lau, K.M.
Choi, H-K.
Baliga, A.
Anderson, N.G. | IEEE Photonics Technol. Lett., Vol. 7,
No. 2, February 1995,
pp. 140–143 |
| 7188 | InAsSb/InAlAs Strained Quantum-Well Lasers Emitting at 4.5 μm | Choi, H-K.
Turner, G.W.
Le, H.Q. | Appl. Phys. Lett.,
Vol. 66, No. 26,
26 June 1995,
pp. 3543–3545 |
| 7189 | A One-Watt, 10-Gbps High-Sensitivity Optical Communication System | Livas, J.C.
Swanson, E.A.
Chinn, S.R.
Kintzer, E.S.
Bondurant, R.S.
DiGiovanni, D.J. | IEEE Photonics Technol. Lett., Vol. 7,
No. 5, May 1995,
pp. 579–581 |
| 7190 | Coupled-Cavity Electro-Optically Q-Switched Nd:YVO ₄ Microchip Lasers | Zayhowski, J.J.
Dill, C. III | Opt. Lett., Vol. 20,
No. 7, 1 April 1995,
pp. 716–718 |
| 7194 | Suppressed Gate Current in a a Superlattice-Insulated-Gate Field-Effect Transistor on InP | Brown, E.R.
Chen, C-L.
Mahoney, L.J.
Maki, P.A.
Nichols, K.B. | Appl. Phys. Lett.,
Vol. 66, No. 18,
1 May 1995,
pp. 2352–2354 |

Journal Articles

JA No.

- | | | | |
|------|---|--|--|
| 7195 | TCAS: Maneuvering Aircraft
in the Horizontal Plane | Burgess, D.W.
Altman, S.I.
Wood, M.L. | Linc. Lab. J., Vol. 7,
No. 2, Fall 1994,
pp. 295-312 |
| 7196 | Supporting the Deployment
of the Terminal Doppler
Weather Radar (TDWR) | Evans, J.E.
Bernella, D.M. | Linc. Lab. J., Vol. 7,
No. 2, Fall 1994,
pp. 379-398 |
| 7198 | Automated Storm Tracking
for Terminal Air Traffic
Control | Chornoboy, E.S.
Matlin, A.M.
Morgan, J.P. | Linc. Lab. J., Vol. 7,
No. 2, Fall 1994,
pp. 427-448 |
| 7199 | Automated Microburst
Wind-Shear Prediction | Wolfson, M.M.
Delanoy, R.L.
Forman, B.E.
Hallowell, R.G.
Pawlak, M.L.
Smith, P.D. | Linc. Lab. J., Vol. 7,
No. 2, Fall 1994,
pp. 399-426 |
| 7201 | Laser-Formed Metallic
Connections Employing a
Lateral Link Structure | Bernstein, J.B.
Colella, B.D. | IEEE Trans. Compon.
Packag. Manuf.
Technol. A, Vol. 18,
No. 3, September 1995,
pp. 690-692 |
| 7202 | 193-nm Lithography at MIT
Lincoln Lab | Hibbs, M.S.
Kunz, R.R.
Rothschild, M. | Solid State Technol.,
Vol. 38, No. 7,
July 1995, pp. 69-78 |
| 7203 | The Integrated Terminal
Weather System (ITWS) | Evans, J.E.
Ducot, E.R. | Linc. Lab. J., Vol. 7,
No. 2, Fall 1994,
pp. 449-474 |
| 7204 | Spectral Linewidth of a
Free-Running Continuous
Wave Single-Frequency
External-Cavity
Quantum-Well InGaAs/AlGaAs
Diode Laser | Hsu, L.
Mooradian, A.
Aggarwal, R.L. | Opt. Lett., Vol. 20,
No. 17, 1 September 1995,
pp. 1788-1790 |

Journal Articles

JA No.

- | | | | |
|------|---|---|--|
| 7206 | Ho:YAG Laser Pumped by
1.9- μ m Diode Lasers | Nabors, C.D.
Ochoa, J.R.
Fan, T.Y.
Sanchez, A.
Choi, H-K.
Turner, G.W. | IEEE J. Quantum
Electron., Vol. 31,
No. 9, September 1995,
pp. 1603-1605 |
| 7208 | Picosecond-Accuracy
All-Optical Bit Phase
Sensing Using a Nonlinear
Optical Loop Mirror | Hall, K.L.
Rauschenbach, K.A.
Swanson, E.A.
Chinn, S.R.
Raybon, G. | IEEE Photonics
Technol. Lett., Vol. 7,
No. 8, August 1995,
pp. 935-937 |
| 7209 | Error-Rate Performance of
Optical Amplifiers with
Fabry-Perot Filters | Chinn, S.R. | Electron. Lett.,
Vol. 31, No. 9,
27 April 1995,
pp. 756-757 |
| 7210 | InAsSb/InAlAsSb Strained
Quantum-Well Diode Lasers
Emitting at 3.9 μ m | Choi, H-K.
Turner, G.W. | Appl. Phys. Lett.,
Vol. 67, No. 3,
17 July 1995,
pp. 332-334 |
| 7211 | 20-GHz Optical Storage
Loop/Laser Using Amplitude
Modulation, Filtering, and
Artificial Fast Saturable
Absorption | Moores, J.D.
Hall, K.L.
LePage, S.M.
Rauschenbach, K.A.
Wong, W.S.
Haus, H.A.
Ippen, E.P. | IEEE Photonics
Technol. Lett., Vol. 7,
No. 9, September 1995,
pp. 1096-1098 |
| 7222 | Tritertiarybutylaluminum
as an Organometallic
Source for Epitaxial
Growth of AlGaSb | Wang, C.A.
Finn, M.C.
Salim, S.
Jensen, K.F.
Jones, A.C. | Appl. Phys. Lett.,
Vol. 67, No. 10,
4 September 1995,
pp. 1384-1386 |
| 7230 | A Lightweight Fast Hopping
Synthesizer for EHF
Satellite Applications | Materna, D.M. | IEEE MILCOM '95,
Vol. 2, 6-8 November 1995,
pp. 752-759 |

Journal Articles

JA No.

- | | | | |
|------|--|--|--|
| 7231 | All-Optical Storage of a
1.25 kb Packet at 10 Gb/s | Hall, K.L.
Moore, J.D.
Rauschenbach, K.A.
Wong, W.S.
Ippen, E.P.
Haus, H.A. | IEEE Photonics
Technol. Lett., Vol. 7,
No. 9, September 1995,
pp. 1093-1095 |
| 7234 | Tunable Single-Frequency
Yb:YAG Laser with 1-W
Output Power Using
Twisted-Mode Technique | Fan, T.Y.
Ochoa, J.R. | IEEE Photonics
Technol. Lett., Vol. 7,
No. 10, October 1995,
pp. 1137-1138 |
| 7237 | An 800-MHz Monolithic GaAs
HBT Serrodyne Modulator | Kushner, L.J.
Van Andrews, G.
White, W.A.
Delaney, J.B.
Vernon, M.A.
Harris, M.P.
Whitmire, D.A. | IEEE J. Solid-State
Circuits, Vol. 30,
No. 10, October 1995,
pp. 1041-1050 |
| 7238 | Precision Runway Monitor | Shank, E.M.
Hollister, K.M. | Linc. Lab. J., Vol. 7,
No. 2, Fall 1994,
pp. 329-354 |
| 7240 | Observation of a
Nanocrystalline-to-Amorphous
Phase Transition in
Luminescent Porous Silicon | Kunz, R.R.
Nitishin, P.M.
Clark, H.R.
Rothschild, M.
Ahern, B. | Appl. Phys. Lett.,
Vol. 67, No. 12,
18 September 1995,
pp. 1766-1768 |
| 7245 | The ASR-9 Processor
Augmentation Card (9-PAC) | Pieronek, J.V. | Linc. Lab. J., Vol. 7,
No. 2, Fall 1994,
pp. 355-378 |
| 7277 | Evaluation of
Runway-Assignment and
Aircraft-Sequencing
Algorithms in Terminal
Area Automation | Vandevenne, H.F.
Lippert, M.A. | Linc. Lab. J., Vol. 7,
No. 2, Fall 1994,
pp. 215-238 |
| 7278 | Demonstration of Runway
Status Lights at Logan
Airport | Eggert, J.R. | Linc. Lab. J., Vol. 7,
No. 2, Fall 1994,
pp. 169-186 |

Journal Articles

JA No.

7279	Preventing Runway Conflicts: The Role of Airport Surveillance, Tower-Cab Alerts, and Runway-Status Lights	Wilhelmsen, H.	Linc. Lab. J., Vol. 7, No. 2, Fall 1994, pp. 149–168
7280	Performance of the Runway-Status Light System at Logan Airport	Wilhelmsen, H. Kastner, M.P. Morin, T.J. Sturdy, J.L.	Linc. Lab. J., Vol. 7, No. 2, Fall 1994, pp. 187–214
7285	Air Traffic Control Development at Lincoln Laboratory	Fielding, J.C.	Linc. Lab. J., Vol. 7, No. 2, Fall 1994, pp. 147–148
7293	Fourier-Space Image Restoration	Parenti, R.R.	Linc. Lab. J., Vol. 8, No. 1, Spring/Summer 1995, pp. 29–48

MEETING SPEECHES

MS No.

- | | | | |
|--------|---|---|--|
| 10151A | Time-Scale Modification
with Temporal Envelope
Invariance | Quatieri, T.F.
Dunn, R.B.
Hanna, T.E. | Proc. IEEE Workshop
on Applications of
Signal Processing to
Audio and Acoustics,
17-20 October 1993,
pp. 127-130 |
| 10159 | The Application of Subband
Coding to Improve Quality
and Robustness of the
Sinusoidal Transform Coder | McAulay, R.J.
Quatieri, T.F. | ICASSP'93, Proc.
IEEE Int. Conf. on
Acoustics, Speech
and Signal
Processing, Vol. 2,
Speech Processing,
27-30 April 1993,
pp. 439-442 |
| 10411 | The Calibration and
Characterization of IRAS
Metric Resident Space
Object Detections | Lane, M.T.
Baldassini, J.F.
Gaposchkin, E.M. | AAS/AIAA
Astrodynamics
Specialist Conf.,
14-17 August 1995,
14 pages |
| 10438 | Synthetic Beacons for
Atmospheric Compensation | Greenwood, D.P.
Parenti, R.R. | Chapter in <i>Adaptive
Optics for Astronomy</i> ,
Kluwer Academic
Publishers, 1994,
pp. 185-204 |
| 10445A | Minimally Invasive
Monopole Phased Arrays for
Hyperthermia Treatment of
Breast Carcinomas: Design
and Phantom Tests | Fenn, A.J.
Bornstein, B.A.
Svensson, G.K.
Bowman, H.F. | Int. Symp. on
Electromagnetic
Compatability,
16-20 May 1994,
pp. 556-559 |
| 10477B | Applications of Lasers in
Microelectronics and
Micromechanics | Ehrlich, D.J. | Chapter in <i>Excimer
Lasers</i> , Kluwer
Academic Publishers,
1994, pp. 307-317
ADA291590 |

Meeting Speeches

MS No.

10485	193 nm — Moderately EUV	Rothschild, M.	Optical Society of America, Proc. on Extreme Ultraviolet Lithography, Vol. 23, 1994, pp. 10–12
10498	Demonstrations and Applications of Spoken Language Technology: Highlights and Perspectives from the 1993 ARPA Spoken Language Technology and Applications Day	Weinstein, C.J.	ICASSP'94, Proc. IEEE Int. Conf. on Acoustics, Speech and Signal Processing, Vol. 1, Speech Processing, 19–22 April 1994, pp. 337–340
10501A	Time-Domain Frequency Stability Measurements of Ultra-Stable CO ₂ Lasers	Freed, C. Eng, R.S. Summers, C.L.	Proc. Int. Conf. on Lasers '93, 6–10 December 1993, pp. 100–112
10504	Evaluation of Spectrogram Processing of Laser Vibration Signals via Computer Simulation	Kachelmyer, A.L.	Proc. Int. Conf. on Lasers '93, 6–10 December 1993, pp. 84–93
10506	Automatic Language Identification of Telephone Speech Messages Using Phoneme Recognition and N-Gram Modeling	Zissman, M.A. Singer, E.	ICASSP'94, Proc. IEEE Int. Conf. on Acoustics, Speech and Signal Processing, Vol. 1, Speech Processing, 19–22 April 1994, pp. 305–308
10510	Wordspotter Training Using Figure-of-Merit Back Propagation	Lippmann, R.P. Chang, E.I. Jankowski, C.R., Jr.	ICASSP'94, Proc. IEEE Int. Conf. on Acoustics, Speech and Signal Processing, Vol. 1, Speech Processing, 19–22 April 1994, pp. 389–392

Meeting Speeches

MS No.

- | | | | |
|--------|--|---|--|
| 10518 | Speaker Identification and Verification Using Gaussian Mixture Speaker Models | Reynolds, D.A. | Speech Commun., Vol. 17, 1995, pp. 91-108 |
| 10524 | Applying Electro-Optical Space Surveillance Technology to the Detection of Near Earth Asteroids | Tennyson, P.D.
Rork, E.W.
Kostishack, D.F. | SPIE, Vol. 2198, Instrumentation in Astronomy VIII, 13-14 March 1994, pp. 1286-1297 |
| 10570 | Magnetically Tunable Single Sideband Electro-Optic Modulator | Eng, R.S.
Harris, N.W.
Lax, B.
Sobolewski, J.
Summers, C.L. | Proc. Int. Conf. on Lasers '94, 12-16 December 1994, pp. 655-667 |
| 10596A | Space-Based Space Surveillance with MSX | Gaposchkin, E.M. | Spaceflight Mechanics 1995, Advances in the Astronautical Sciences, Vol. 89, 1995, pp. 1681-1690 |
| 10614 | Frequency and Power Control in Two-Section DBR Lasers by Dual Active- and Bragg-Section Tuning | Hemenway, B.R.
Shankaranarayanan, N.K.
Koren, U. | Optical Society of America, Conf. on Optical Fiber Communication, Vol. 4, 1994 Technical Digest Series, 20-25 February 1994, pp. 41-42 |
| 10615 | High-Sensitivity Optically Preamplified and Optically Demodulated DPSK Receiver with Active Delay-Line Stabilization | Swanson, E.A.
Livas, J.C.
Bondurant, R.S. | Optical Society of America, Conf. on Optical Fiber Communication, Vol. 4, 1994 Technical Digest Series, 20-25 February 1994, pp. 236-237 |

Meeting Speeches

MS No.

- | | | | |
|--------|--|--|--|
| 10629 | Rapidly Tuned FDM Laser Transmission with Multichannel Heterodyne Detection | Hemenway, B.R.
Stevens, M.L.
Alexander, S.B. | Optical Society of America, Conf. on Optical Fiber Communication, Vol. 4, 1994 Technical Digest Series, 20-25 February 1994, pp. 35-36 |
| 10690 | Radar Images of Logan Airport and Application in Automated Aircraft Tracking | Harman, W.H. III
Schultz, H.B.
Wyschogrod, D.
Eggert, J.R.
Sasiela, R.J.
Bush, R.W. | SPIE, Vol. 2220, Sensing, Imaging, and Vision for Control and Guidance of Aerospace Vehicles, 4-5 April 1994, pp. 316-327 |
| 10698A | Ferrite-Superconductor Microwave Phase Shifters | Dionne, G.F.
Oates, D.E.
Temme, D.H. | IEEE Trans. Magn., Vol. 30, No. 6, November 1994, pp. 4518-4520 |
| 10730 | NDVI Sensitivity to Atmospheric Water Vapor as a Function of Spectral Bandwidth | Kerekes, J.P. | IGARSS'94, Int. Geoscience and Remote Sensing Symp., Surface and Atmospheric Remote Sensing: Technologies, Data Analysis and Interpretation, Vol. III, 8-12 August 1995, pp. 1506-1508 |
| 10778 | Mission Planning for Space-Based Satellite Surveillance Experiments with the MSX | Sridharan, R.
Fishman, T.
Robinson, E.
Viggh, H.
Wiseman, A. | Third Int. Symp. on Space Mission Operations and Ground Data Systems, Space OPS'94, Pt. 1, 15-18 November 1994, pp. 295-303 |

Meeting Speeches

MS No.

- | | | | |
|--------|---|--|---|
| 10779 | Three-Dimensional Laser Direct Writing: Applications to Multichip Modules | Nassuphis, N.
Mathews, R.H.
Palmacci, S.T.
Ehrlich, D.J. | J. Vac. Sci. Technol. B, Vol. 12, No. 6, November/December 1994, pp. 3294-3299 |
| 10790 | Joint Operations Planning for Space Surveillance Missions on the MSX Satellite | Stokes, G.H.
Good, A. | Third Int. Symp. on Space Mission Operations and Ground Data Systems, Space OPS'94, Pt. 1, 15-18 November 1994, pp. 319-326 |
| 10927 | Growth of InAsSb Quantum Wells for Long-Wavelength (~4 μm) Lasers | Turner, G.W.
Choi, H-K.
Le, H.Q. | J. Vac. Sci. Technol. B, Vol. 13, No. 2, March/April 1995, pp. 699-701 |
| 10931 | Overview of 1994 Memphis Wake Vortex Testing Program | Campbell, S.D.
Dasey, T.J.
Heinrichs, R.M.
Matthews, M.P. | Sixth Conf. on Aviation Weather Systems, 15-20 January 1995, pp. 515-520 |
| 10943 | An Advanced Weather Surveillance Processor for Airport Surveillance Radars | Weber, M.E.
Kays, T.A. | Sixth Conf. on Aviation Weather Systems, 15-20 January 1995, pp. 396-401 |
| 10944C | High-Density 300-Gbps/cm ² Parallel Free-Space Optical Interconnection Design Considerations | Tsang, D.Z. | Optical Society of America, Optical Computing, 1995 Technical Digest Series, Vol. 10, 13-16 March 1995, pp. 277-279 |
| 10946 | Machine Intelligent Gust Front Detection for the Integrated Terminal Weather System (ITWS) | Troxel, S.W.
Delanoy, R.L. | Sixth Conf. on Aviation Weather Systems, 15-20 January 1995, pp. 378-383 |

Meeting Speeches

MS No.

10947	The ITWS Runway Wind Nowcast Product	Rasmussen, R.G. Robasky, F.M.	Sixth Conf. on Aviation Weather Systems, 15–20 January 1995, pp. 390–395
10948	ITWS Gridded Winds Product	Cole, R.E. Wilson, F.W.	Sixth Conf. on Aviation Weather Systems, 15–20 January 1995, pp. 384–389
10949	Applications of Column Models for Terminal Weather Nowcasts	Keller, J.L. Smith, C.B. Wilson, F.W.	Sixth Conf. on Aviation Weather Systems, 15–20 January 1995, pp. 66–71
10952	Characterizing the Causes of Low Ceiling and Visibility at U.S. Airports	Clark, D.A.	Sixth Conf. on Aviation Weather Systems, 15–20 January 1995, pp. 325–330
10953	The Integrated Terminal Weather System (ITWS) Storm Cell Information Algorithm	Dasey, T.J. Denneno, A.P. Boldi, R.A.	Sixth Conf. on Aviation Weather Systems, 15–20 January 1995, pp. 372–377
10956	An Algorithm to Remove Anomalous Propagation Clutter Returns from ASR-9 Weather Channel Data Using Pencil Beam Radar Data	Klinge-Wilson, D.L. Mann, E.B. Boldi, R.A.	Sixth Conf. on Aviation Weather Systems, 15–20 January 1995, pp. 366–371
10957	VLSI Bit-Level Systolic Array for Radar Front-End Signal Processing	Song, W.S.	Twenty-Eighth Asilomar Conf. on Signals, Systems and Computers, Vol. 2, 31 October – 2 November 1994, pp. 1407–1411

Meeting Speeches

MS No.

- | | | | |
|--------|---|--|---|
| 10964 | A Class of Polynomial Rooting Algorithms for Joint Azimuth/Elevation Estimation Using Multidimensional Arrays | Hatke, G.F.
Forsythe, K.W. | Twenty-Eighth Asilomar Conf. on Signals, Systems and Computers, Vol. 1, 31 October – 2 November 1994, pp. 694–699 |
| 10978 | The 193-nm Full-Field Step-and-Scan Prototype at MIT Lincoln Laboratory | Hibbs, M.S.
Kunz, R.R. | SPIE, Vol. 2440, Optical/Laser Microlithography VIII, 22–24 February 1995, pp. 40–48 |
| 10988 | High-Power Diode-Pumped Mid-Infrared Semiconductor Lasers | Le, H.Q.
Turner, G.W.
Choi, H-K.
Ochoa, J.R.
Sanchez, A.
Arias, J.M.
Zandian, M.
Zucca, R.R.
Liu, Y-Z. | SPIE, Vol. 2382, Laser Diodes and Applications, 8–10 February 1995, pp. 262–270 |
| 10994A | Projecting RASSP Benefits | Anderson, J.C. | Proc. 2nd Annual RASSP Conf., 24–27 July 1995, pp. 65–72 |
| 10999 | GaSb-Based Mid-Infrared Quantum-Well Diode Lasers | Choi, H-K.
Turner, G.W. | SPIE, Vol. 2382, Laser Diodes and Applications, 8–10 February 1995, pp. 236–243 |

Meeting Speeches

MS No.

- | | | | |
|-------|--|---|--|
| 11001 | Language Identification
Using Phoneme Recognition
and Phonotactic Language
Modeling | Zissman, M.A. | ICASSP'95, Proc. IEEE
Int. Conf. on Acoustics,
Speech and Signal
Processing, Vol. 5,
Special Sessions, Audio
and Electroacoustics,
Underwater Acoustic
Signal Processing, Very
Large Scale Integration for
Signal Processing, Neural
Networks for Signal
Processing, Joint Sessions,
9–12 May 1995,
pp. 3503–3506 |
| 11016 | New Developments in the
Lincoln Stack-Decoder
Based Large-Vocabulary CSR
System | Paul, D.B. | ICASSP'95, Proc.
IEEE Int. Conf. on
Acoustics, Speech
and Signal
Processing, Vol. 1,
Speech, 9–12 May 1995,
pp. 45–48 |
| 11017 | The Effects of Telephone
Transmission Degradations
on Speaker Recognition
Performance | Reynolds, D.A.
Zissman, M.A.
Quatieri, T.F.
O'Leary, G.C.
Carlson, B.A. | ICASSP'95, Proc.
IEEE Int. Conf. on
Acoustics, Speech
and Signal
Processing, Vol. 1,
Speech, 9–12 May 1995,
pp. 329–332 |
| 11018 | An Overview of the
ARPA/NAVY Mountaintop
Program | Titi, G.W. | Adaptive Antenna
Systems Symp.,
7–8 November 1994,
pp. 2–9 |
| 11020 | Measuring Fine Structure
in Speech: Application to
Speaker Identification | Jankowski, C.R., Jr.
Quatieri, T.F.
Reynolds, D.A. | ICASSP'95, Proc.
IEEE Int. Conf. on
Acoustics, Speech
and Signal
Processing, Vol. 1,
Speech, 9–12 May 1995,
pp. 325–328 |

Meeting Speeches

MS No.

- | | | | |
|-------|--|--|---|
| 11021 | Hyperbolic Updating of LDU Decompositions | Baranoski, E.J. | 1994 Sixth IEEE Digital Signal Processing Workshop, 2-5 October 1994, pp. 281-284 |
| 11031 | Mass-Transport Fabrication of Large-Numerical-Aperture Microoptics | Liau, Z-L. | SPIE, Vol. 2383, Micro-Optics/Micromechanics and Laser Scanning and Shaping, 7-9 February 1995, pp. 310-317 |
| 11032 | The Midcourse Space Experiment (MSX) Autonomous Command and Control Simulator | Powell, G.E., Jr.
Oh, M.M.
Lane, M.T.
Gaposchkin, E.M. | AAS/AIAA Astrodynamics Specialist Conf., 14-17 August 1995, 14 pages |
| 11037 | The Terminal Weather Information for Pilots (TWIP) Program | Campbell, S.D.
Matthews, M.P.
Rooney, M. | Sixth Conf. on Aviation Weather Systems, 15-20 January 1995, pp. 107-112 |
| 11041 | Optimization of a 193-nm Silylation Process for Sub-0.25- μ m Lithography | Palmateer, S.C.
Kunz, R.R.
Horn, M.W.
Forte, A.R.
Rothschild, M. | SPIE, Vol. 2438, Advances in Resist Technology and Processing XII, 20-22 February 1995, pp. 455-464 |
| 11042 | SAR Imaging of Minelike Targets Over Ultra-Wide Bandwidths | Blejer, D.J.
Frost, C.E.
Scarborough, S.M.
Kappra, K.
Sturgess, K. | SPIE, Vol. 2496, Detection Technologies for Mines and Minelike Targets, 17-21 April 1995, pp. 54-69 |
| 11043 | Ultra-Wideband SAR Signature Investigations Based on Electromagnetic Models and Measurements | Lee, C.F.
Binder, B.T. | SPIE, Vol. 2487, Algorithms for Synthetic Aperture Radar Imagery II, 19-21 April 1995, pp. 56-70 |

Meeting Speeches

MS No.

- | | | | |
|-------|--|--|---|
| 11056 | Wavelet Based SAR Speckle Reduction and Image Compression | Odegard, J.E.
Guo, H.
Lang, M.
Burrus, C.S.
Wells, R.O., Jr.
Novak, L.M.
Hiatt, M. | SPIE, Vol. 2487,
Algorithms for Synthetic Aperture Radar Imagery II, 19–21 April 1995, pp. 259–271 |
| 11060 | Network Management for All-Optical Networks | Marquis, D.V.
Finn, S.G.
Parikh, S.A. | Optical Society of America, Conf. on Optical Fiber Communication, Vol. 8, 1995 Technical Digest Series, 26 February–3 March 1995, pp. 166–167 |
| 11062 | Demonstration of SONET Transport over a Time-Slotted FDM All-Optical Network | Castagnozzi, D.M.
Hemenway, B.R.
Stevens, M.L.
Ozveren, C.M.
Grella, E.G. | Optical Society of America, Conf. on Optical Fiber Communication, Vol. 8, 1995 Technical Digest Series, 26 February – 3 March 1995, pp. 58–60 |
| 11063 | Fast Subspace Tracking Using Coarse Grain and Fine Grain Parallelism | Rabideau, D.
Steinhardt, A.O. | ICASSP'95, Proc. IEEE Int. Conf. on Acoustics, Speech and Signal Processing, Vol. 5, Special Sessions, Audio and Electroacoustics, Underwater Acoustic Signal Processing, Very Large Scale Integration for Signal Processing, Neural Networks for Signal Processing, Joint Sessions, 9–12 May 1995, pp. 3211–3214 |

Meeting Speeches

MS No.

- | | | | |
|-------|--|---|--|
| 11074 | Assessing and Improving
Current Practice in the
Design of Application-Specific
Signal Processors | Shaw, G.A.
Anderson, J.C.
Madiseti, V.K. | ICASSP'95, Proc. IEEE
Int. Conf. on Acoustics,
Speech and Signal
Processing; Vol. 4, Image
and Multi-Dimensional
Signal Processing; Signal
Processing Applications
Development, 9-12 May 1995,
pp. 2707-2710 |
| 11075 | Automatic Dependent
Surveillance Broadcast via
GPS-Squitter: A Major
Upgrade to the National
Airspace System | Jones, R.
Knittel, G.H.
Orlando, V.A. | SPIE, Vol. 2464, Air
Traffic Control
Technologies,
18-19 April 1995,
pp. 2-13 |
| 11103 | A Low-Loss, Fiber-Based
Wavelength-Division
Multiplexer | Swanson, E.A.
Livas, J.C.
Bondurant, R.S. | SPIE, Vol. 2381,
Free-Space Laser
Communication
Technologies VII,
7-8 February 1995,
pp. 242-253
ADA294719 |
| 11104 | High Data Rate Systems for
Space Applications | Livas, J.C.
Swanson, E.A.
Chinn, S.R.
Kintzer, E.S. | SPIE, Vol. 2381,
Free-Space Laser
Communication
Technologies VII,
7-8 February 1995,
pp. 38-47 |
| 11114 | Performance Capabilities
of the Ring Network
Circulator for Integrated
Circuits | Weiss, J.A.
Dionne, G.F. | 1995 IEEE MTT-S Int.
Microwave Symp.
Digest, Vol. 2,
16-20 May 1995,
pp. 725-728 |
| 11122 | High-Performance
0.15- μ m-Gate-Length pHEMTs
Enhanced with a
Low-Temperature-Grown GaAs
Buffer | Actis, R.
Nichols, K.B.
Kopp, W.F.
Rogers, T.J.
Smith, F.W. | 1995 IEEE MTT-S Int.
Microwave Symp.
Digest, Vol. 2,
16-20 May 1995,
pp. 445-448 |

Meeting Speeches

MS No.

- | | | | |
|-------|--|--|--|
| 11129 | Gigahertz Clock Synchronization Using a Nonlinear Optical Loop Mirror as an All-Optical Phase Comparator | Hall, K.L.
Rauschenbach, K.A.
Swanson, E.A.
Chinn, S.R.
Raybon, G. | Optical Society of America, Photonics in Switching, 1995 Technical Digest Series, Vol. 12, 15-17 March 1995, pp. 61-63 |
| 11130 | Multistage Processing for Automatic Minefield Detection Using Low-Frequency SAR | Crocker, S.C.
Ayasli, S.
Grosch, T. | SPIE, Vol. 2496, Detection Technologies for Mines and Minelike Targets, 17-21 April 1995, pp. 823-833 |
| 11133 | DCS-1900 System Configuration | McGuffin, B.F. | 1995 IEEE 45th Vehicular Technology Conf., 25-28 July 1995, pp. 112-117 |
| 11137 | Phased Array Calibrations Using Measured Element Patterns | Aumann, H.M.
Willwerth, F.G. | 1995 IEEE Int. Symp. Digest, Antennas and Propagation, Vol. 2, 18-23 June 1995, pp. 918-921 |
| 11152 | Dielectric Fracture Leading to Metallic Connections by Laser Heating | Bernstein, J.B. | Materials Research Society Symp. Proc., Vol. 356, 1995, pp. 833-837 |
| 11159 | High-Resolution Adaptive Nulling Performance for a Lightweight Agile EHF Multiple Beam Antenna | Fenn, A.J. | 1995 IEEE MTT-S Int. Microwave Symp. Digest, Vol. 3, 16-20 May 1995, pp. 1217-1220 |
| 11161 | Optimal Structural Design of the Airborne Infrared Imager | Doyle, K.B.
Cerrati, V.J.
Forman, S.E.
Sultana, J.A. | SPIE, Vol. 2542, Optomechanical and Precision Instrument Design, 10-11 July 1995, pp. 11-22 |

Meeting Speeches

MS No.

- | | | | |
|-------|--|--------------------------------|---|
| 11177 | Performance Limits of
High-Rate Space-to-Ground
Optical Communications
Through the Turbulent
Atmospheric Channel | Kaufmann, J.E. | SPIE, Vol. 2381,
Free-Space Laser
Communication
Technologies VII,
7-8 February 1995,
pp. 171-182 |
| 11193 | Space-Time Adaptive
Processing for Airborne
Radar | Ward, J. | ICASSP'95, Proc. IEEE
Int. Conf. on Acoustics,
Speech and Signal
Processing, Vol. 5,
Special Sessions, Audio
and Electroacoustics
Underwater Acoustic
Signal Processing, Very
Large Scale Integration for
Signal Processing, Neural
Networks for Signal
Processing, Joint Sessions,
9-12 May 1995,
pp. 2809-2812 |
| 11202 | Full Space-Time Clutter
Covariance Estimation | Robey, F.C.
Baranoski, E.J. | ICASSP'95, Proc. IEEE
Int. Conf. on Acoustics,
Speech and Signal
Processing, Vol. 3,
Statistical Signal
and Array Processing,
9-12 May 1995,
pp. 1896-1899 |
| 11203 | Sparse Network Array
Processing Employing Prior
Covariance Knowledge | Baranoski, E.J. | ICASSP'95, Proc. IEEE
Int. Conf. on Acoustics,
Speech and Signal
Processing, Vol. 3,
Statistical Signal
and Array Processing,
9-12 May 1995,
pp. 2040-2043 |

Meeting Speeches

MS No.

- | | | | |
|-------|---|--|--|
| 11221 | Technologies for
Ultra-High-Bit-Rate
Time-Division-Multiplexed
Networks | Rauschenbach, K.A.
Hall, K.L.
Moore, J.D.
Finn, S.G.
Barry, R.A.
Wong, W.S.
Haus, H.A.
Ippen, E.P.
Haner, M. | Optical Society of
America, Photonics
in Switching, 1995
Technical Digest
Series, Vol. 12,
15-17 March 1995,
pp. 45-46 |
| 11226 | Overview of the Lasercom
Program at Lincoln
Laboratory | Bondurant, R.S.
Boroson, D.M. | SPIE, Vol. 2381,
Free-Space Laser
Communication
Technologies VII,
7-8 February 1995,
pp. 2-3 |
| 11228 | GPS-Squitter Low-Altitude
Air Surveillance in the
Gulf of Mexico | Boisvert, R.E.
Bussolari, S.R.
Knittel, G.H.
Owen, M.C.R.
Saunders, K.W. | 14th AIAA/IEEE
Digital Avionics
Systems Conf.,
5-9 November 1995,
pp. 39-44 |
| 11229 | An Automatic Ship
Classification System for
ISAR Imagery | Menon, M.M. | SPIE, Vol. 2492, Pt. I,
Applications and Science
of Artificial Neural
Networks,
17-21 April 1995,
pp. 373-388 |
| 11237 | Measurement of the
Electrical Bandwidth of
Quantum-Well Infrared
Photodetectors in the
Frequency Domain | Brown, E.R.
McIntosh, K.A.
Nichols, K.B.
Liu, H.C.
Jenkins, G.E. | Electrochemical
Society, Proc., 1995,
pp. 124-138 |
| 11245 | On the Development of
Highly Efficient
Terminations for
Synthetic-Fiber Tensile
Members | Mower, T.M. | Proc. 14th Int. Conf. on
Offshore Technology
Mechanics and Arctic
Engineering (OMAE
1995), Vol. I, Pt. B,
Offshore Technology,
18-22 June 1995,
pp. 423-433 |

Meeting Speeches

MS No.

- | | | | |
|-------|--|---|---|
| 11248 | All-Dry Resist Processes
for 193-nm Lithography | Horn, M.W.
Maxwell, B.E.
Kunz, R.R.
Hibbs, M.S.
Eriksen, L.M.
Palmateer, S.C.
Forte, A.R. | SPIE, Vol. 2438,
Advances in Resist
Technology and
Processing XII,
20-22 February 1995,
pp. 760-761 |
| 11254 | Propagation Measurements
for 1.9 GHz High-Gain
Antenna Design | Keller, C.M.
Brown, M.C. | 1995 IEEE 45th
Vehicular Technology
Conf., 25-28 July 1995,
pp. 59-63 |
| 11274 | Learning to Distinguish
Similar Objects | Seibert, M.
Waxman, A.M.
Gove, A.N. | SPIE, Vol. 2492, Pt. I,
Applications and
Science of Artificial
Neural Networks,
17-21 April 1995,
pp. 600-611 |
| 11277 | Optical Link for
Cellular-Telephone
Microcells | Betts, G.E. | Optical Society of
America, Conf. on
Optical Fiber
Communication, Vol. 8,
1995 Technical
Digest Series
26 February-3 March 1995,
pp. 243-244 |
| 11294 | Using Neural Networks to
Predict the Risk of
Cardiac Bypass Operations | Lippmann, R.P.
Kukolich, L. | SPIE, Vol. 2492, Pt. II,
Applications and
Science of Artificial
Neural Networks,
17-21 April 1995,
pp. 651-660 |
| 11313 | Target Prescreening Based
on 2D Gamma Kernels | Principe, J.
Radisavljevic, A.
Kim, M.
Fisher, J. III
Hiatt, M.
Novak, L.M. | SPIE, Vol. 2487,
Algorithms for
Synthetic Aperture
Radar Imagery II,
19-21 April 1995,
pp. 251-258 |

Meeting Speeches

MS No.

- | | | | |
|-------|---|---|--|
| 11315 | A Multiresolution Approach to Discriminating Targets from Clutter in SAR Imagery | Irving, W.W., Jr.
Willsky, A.S.
Novak, L.M. | SPIE, Vol. 2487, Algorithms for Synthetic Aperture Radar Imagery II, 19-21 April 1995, pp. 272-299 |
| 11318 | Extensions of High Definition Imaging | DeLong, D.F.
Benitz, G.R. | SPIE, Vol. 2487, Algorithms for Synthetic Aperture Radar Imagery II, 19-21 April 1995, pp. 165-180 |
| 11329 | An Algorithm for the Recognition and Tracking of Aircraft Wake Vortices with a Continuous Wave Coherent Laser Radar | Dasey, T.J.
Heinrichs, R.M. | Coherent Laser Radar, 1995 Technical Digest Series, Vol. 19, 23-27 July 1995, pp. 193-196 |
| 11332 | An All Fiber Optical Demultiplexer and XOR Gate | Patel, N.S.
Hall, K.L.
Rauschenbach, K.A. | SPIE, Vol. 2613, Emerging Components and Technologies for All-Optical Networks, 24 October 1995, pp. 126-137 |
| 11345 | Color Night Vision: Fusion of Intensified Visible and Thermal IR Imagery | Waxman, A.M.
Fay, D.A.
Gove, A.N.
Seibert, M.
Racamato, J.P.
Carrick, J.E.
Savoye, E.D. | SPIE, Vol. 2463, Synthetic Vision for Vehicle Guidance and Control, 17-18 April 1995, pp. 58-68 |
| 11346 | Neural Processing of SAR Imagery for Enhanced Target Detection | Waxman, A.M.
Lazott, C.H.
Fay, D.A.
Gove, A.N.
Steele, W.R. | SPIE, Vol. 2487, Algorithms for Synthetic Aperture Radar Imagery II, 19-21 April 1995, pp. 201-210 |

Meeting Speeches

MS No.

11347 Polarimetric Subspace
Target Detector for SAR
Data Based on the Huynen
Dihedral Model

Larson, V.
Novak, L.M.

SPIE, Vol. 2487,
Algorithms for
Synthetic Aperture
Radar Imagery II,
19–21 April 1995,
pp. 235–250

11401 Theoretical Analysis of
Gain in Compressive
Strained Quantum Well
InAlAsSb/GaSb Structures
for 3–4 μm Lasers

Nabiev, R.F.
Chang-Hasnain, C.J.
Choi, H-K.

Optical Society of
America, Semiconductor
Lasers, Advanced Devices
Devices and Applications,
Topical Mtg., 1995
Technical Digest, Vol. 20,
21–23 August 1995,
pp. 31–33

AUTHOR INDEX

- Actis, R., MS-11122
 Agahi, F., JA-7183
 Aggarwal, R.L., JA-7204
 Agi, K.N., JA-7063, JA-7168
 Ahern, B., JA-7240
 Alexander, S.B., MS-10629
 Altman, S.I., JA-7195
 Anderson, A.C., JA-7175
 Anderson, J.C., MS-10994A, MS-11074
 Anderson, N.G., JA-7183
 Argon, A.S., JA-7085
 Arias, J.M., MS-10988
 Aumann, H.M., MS-11137
 Ayasli, S., MS-11130
 Bailey, R.J., JA-7124, JA-7146
 Baldassini, J.F., TR-1022, MS-10411
 Baliga, A., JA-7183
 Baranoski, E.J., MS-11021, MS-11202,
 MS-11203
 Barclay, H.T., JA-7031
 Barry, R.A., MS-11221
 Beattie, K.L., JA-7180
 Benitz, G.R., MS-11318
 Bergemann, R.J., TR-1018
 Bernella, D.M., JA-7196
 Bernstein, J.B., JA-7066, JA-7201,
 MS-11152
 Betts, G.E., JA-7104, MS-11277
 Billingsley, J.B., TR-1019
 Binder, B.T., MS-11043
 Blejer, D.J., MS-11042
 Boisvert, R.E., JA-7112, MS-11228
 Boldi, R.A., MS-10953, MS-10956
 Bondurant, R.S., JA-7090, JA-7189,
 MS-10615, MS-11103, MS-11226
 Bornstein, B.A., MS-10445A
 Boroson, D.M., MS-11226
 Bowman, H.F., MS-10445A
 Brown, E.R., JA-7063, JA-7074, JA-7118
 JA-7154, JA-7168, JA-7174, JA-7194,
 MS-11237
 Brown, M.C., MS-11254
 Burgess, D.W., JA-7195
 Burke, B.E., JA-7093, JA-7180
 Burrus, C.S., MS-11056
 Bush, R.W., MS-10690
 Bussolari, S.R., JA-7139, MS-11228
 Campbell, S.D., MS-10931, MS-11037
 Carlson, B.A., MS-11017
 Carlson, B.D., JA-7171
 Carrick, J.E., MS-11345
 Castagnozzi, D.M., MS-11062
 Cebula, D.P., TR-1023
 Cerrati, V.J., MS-11161
 Chang, E.I., MS-10510
 Chang-Hasnain, C.J., MS-11401
 Chen, C-L., JA-7174, JA-7194
 Chinn, S.R., JA-7090, JA-7159, JA-7189,
 JA-7208, JA-7209, MS-11104, MS-11129
 Choi, H-K., JA-7167, JA-7183, JA-7188,
 JA-7206, JA-7210, MS-10927, MS-10988,
 MS-10999, MS-11401
 Chornoboy, E.S., JA-7198
 Chou, C.S., TR-1010
 Clark, D.A., MS-10952
 Clark, H.R., JA-7240
 Cohen, S.S., JA-7151, JA-7152
 Cole, R.E., JA-7160, MS-10948
 Colella, B.D., JA-7201
 Compton, R.C., JA-7033
 Connors, M.K., JA-7167
 Crocker, S.C., MS-11130
 Curtis, J.W., TR-1020
 Dagenais, M., JA-7167
 Dasey, T.J., MS-10931, MS-10953,
 MS-11329
 Dauga, C., JA-7167
 Delaney, J.B., JA-7237
 Delanoy, R.L., TR-1017, JA-7199, MS-10946
 DeLong, D.F., MS-11318
 Denneno, A.P., MS-10953
 Dennis, C.L., JA-7154

Author Index

- DiGiovanni, D.J., JA-7189
Dill, C. III, JA-7063, JA-7110, JA-7168,
JA-7190
Dionne, G.F., TR-1021, TR-1024, JA-7107,
MS-10698A, MS-11114
Donnelly, J.P., JA-6964, JA-7124, JA-7146,
JA-7169
Doyle, K.B., MS-11161
Dresselhaus, G., JA-7175
Dresselhaus, M.S., JA-7175
Ducot, E.R., JA-7203
Dudgeon, D.E., TR-1006
Dunn, R.B., MS-10151A
Eby, M.S., JA-7089
Efremow, N., Jr., JA-7050
Eggers, M.D., JA-7180
Eggert, J.R., JA-7278, MS-10690
Ehrlich, D.J., JA-7180, MS-10477B, MS-10779
Eng, R.S., MS-10501A, MS-10570
Eriksen, L.M., MS-11248
Evans, J.E., JA-7196, JA-7203
Fan, T.Y., JA-7206, JA-7234
Fay, D.A., MS-11345, MS-11346
Fenn, A.J., MS-10445A, MS-11159
Fielding, J.C., JA-7285
Finn, M.C., JA-7222
Finn, S.G., MS-11060, MS-11221
Fisher, J. III, MS-11313
Fishman, T., MS-10778
Flytzani-Stephanopoulos, M., JA-7155
Forman, B.E., JA-7199
Forman, S.E., MS-11161
Forsythe, K.W., MS-10964
Forte, A.R., MS-11041, MS-11248
Fowler, R., JA-7180
Fox, S., JA-7167
Freed, C., MS-10501A
Frerking, M.A., JA-7074
Frost, C.E., MS-11042
Fujimoto, J.G., JA-7116
Gaposchkin, E.M., TR-1018, TR-1022,
MS-10411, MS-10596A, MS-11032
Geis, M.W., JA-7050, JA-7165
Golubovic, B., JA-7169
Good, A., MS-10790
Goodhue, W.D., JA-7169
Gouker, M., JA-7170
Gove, A.N., MS-11274, MS-11345, MS-11346
Gramstorff, B.F., JA-7174
Greenwood, D.P., MS-10438
Grella, E.G., MS-11062
Gronqvist, H., JA-7074
Grosch, T., MS-11130
Groves, S.H., JA-7146
Guo, H., MS-11056
Hall, K.L., JA-7090, JA-7208, JA-7211,
JA-7231, MS-11129, MS-11221, MS-11332
Hallowell, R.G., JA-7199
Halversen, S.D., JA-7145A
Haner, M., MS-11221
Hanna, T.E., MS-10151A
Harman, W.H. III, MS-10690
Harris, M.P., JA-7237
Harris, N.W., JA-7107, MS-10570
Harrison, J., JA-7110
Hatke, G.F., MS-10964
Haus, H.A., JA-7127A, JA-7211, JA-7231,
MS-11221
Hee, M.R., JA-7116
Heggstad, H.M., JA-7101
Heinrichs, R.M., MS-10931, MS-11329
Hemenway, B.R., MS-10614, MS-10629,
MS-11062
Herrmann, J., JA-7031
Hibbs, M.S., JA-7202, MS-10978, MS-11248
Hiett, M., JA-7145A, MS-11056, MS-11313
Hogan, M.E., JA-7180
Hollis, M.A., JA-7180
Hollister, K.M., JA-7238
Holly, S., JA-7050
Horn, M.W., MS-11041, MS-11248
Hsieh, D., JA-7155
Hsu, L., JA-7204
Huang, D., JA-7116

- Humphreys, R.A., JA-7031
 Ippen, E.P., JA-7211, JA-7231, MS-11221
 Irving, W.W., Jr., MS-11315
 Izatt, J.A., JA-7116
 Jankowski, C.R., Jr., JA-7133, JA-7157,
 MS-10510, MS-11020
 Jenkins, G.E., JA-7118, MS-11237
 Jensen, K.F., JA-7222
 Jones, A.C., JA-7222
 Jones, R., MS-11075
 Kachelmyer, A.L., JA-7115, MS-10504
 Kalson, S.Z., JA-6800
 Kappra, K., MS-11042
 Kastner, M.P., JA-7280
 Kaufmann, J.E., MS-11177
 Kays, T.A., MS-10943
 Keller, C.M., MS-11254
 Keller, J.L., MS-10949
 Kelley, P.L., JA-6853
 Kerekes, J.P., MS-10730
 Kim, M., MS-11313
 Kintzer, E.S., JA-7189, MS-11104
 Klinge-Wilson, D.L., MS-10956
 Knecht, J.M., JA-7151
 Knittel, G.H., JA-7112, MS-11075,
 MS-11228
 Kopp, W.F., MS-11122
 Koren, U., MS-10614
 Kosicki, B.B., JA-7180
 Kostishack, D.F., MS-10524
 Krueger, C.W., JA-7155
 Kukulich, L., MS-11294
 Kunz, R.R., JA-7202, JA-7240, MS-10978,
 MS-11041, MS-11248
 Kushner, L.J., JA-7237
 Lacoss, R.T., TR-1006
 Lamture, J.B., JA-7180
 Lane, M.T., TR-1022, MS-10411
 MS-11032
 Lang, M., MS-11056
 Larrabee, J.F., TR-1019
 Larson, V., MS-11347
 Lau, K.M., JA-7183
 Lau, S.D., JA-6964
 Lax, B., JA-7107, MS-10570
 Lazott, C.H., MS-11346
 Le, H.Q., JA-7188, MS-10927, MS-10988
 Lee, C.F., MS-11043
 LePage, S.M., JA-7211
 Liao, Z-L., MS-11031
 Lin, C.P., JA-7116
 Lippert, M.A., JA-7277
 Lippmann, R.P., JA-7157, MS-10510,
 MS-11294
 Liu, H.C., JA-7118, MS-11237
 Liu, Y-Z., MS-10988
 Livas, J.C., JA-7189, MS-10615, MS-11103,
 MS-11104
 Macaulay, J., JA-7165
 Madisetti, V.K., MS-11074
 Mahoney, L.J., JA-7174, JA-7194
 Maki, P.A., JA-7194
 Malloy, K.J., JA-7063, JA-7168
 Manfra, M.J., JA-7118, JA-7174
 Mann, E.B., MS-10956
 Marquis, D.V., MS-11060
 Martinez, R.D., JA-7033
 Materna, D.M., JA-7230
 Mathews, R.H., MS-10779
 Matlin, A.M., JA-7198
 Matthews, M.P., MS-10931, MS-11037
 Maxwell, B.E., MS-11248
 McAulay, R.J., MS-10159
 McGuffin, B.F., JA-6926, MS-11133
 McIntosh, K.A., JA-7118, JA-7154,
 MS-11237
 McMahon, O.B., JA-7168
 Menon, M.M., MS-11229
 Miller, J.W., JA-7090
 Missaggia, L.J., JA-7146
 Molvar, K.M., JA-7174
 Mooradian, A., JA-7204
 Moores, J.D., JA-7127A, JA-7131, JA-7211,
 JA-7231, MS-11221

Author Index

- Morgan, J.P., JA-7198
Morin, T.J., JA-7280
Mower, T.M., JA-7085, MS-11245
Mull, D.E., JA-7124
Murphy, R.A., JA-7174
Nabiev, R.F., MS-11401
Nabors, C.D., JA-7048, JA-7206
Napoleone, A., JA-7146
Nassuphis, N., MS-10779
Natzic, M., JA-7074
Nguyen, P.P., JA-7175
Nichols, K.B., JA-7118, JA-7154, JA-7174,
JA-7194, MS-11122, MS-11237
Nilsen, S.M., JA-7074
Nitishin, P.M., JA-7240
Novak, L.M., JA-7145A, MS-11056,
MS-11313, MS-11315, MS-11347
Oates, D.E., JA-7033, JA-7175, MS-10698A
Ochoa, J.R., JA-7110, JA-7206, JA-7234,
MS-10988
Odegard, J.E., MS-11056
Oh, M.M., MS-11032
Okano, K., JA-7165
O'Leary, G.C., MS-11017
Orlando, V.A., JA-7112, MS-11075
Owen, M.C.R., MS-11228
Owirka, G.J., JA-7145A
Ozveren, C.M., MS-11062
Palmacci, S.T., MS-10779
Palmateer, S.C., MS-11041, MS-11248
Parenti, R.R., JA-7293, MS-10438
Parikh, S.A., MS-11060
Parker, C.D., JA-7063
Patel, N.S., MS-11332
Paul, D.B., MS-11016
Pawlak, M.L., JA-7199
Pieronek, J.V., JA-7245
Pohlig, S.C., JA-6920
Popov, O.A., JA-7124
Powell, G.E., Jr., MS-11032
Price, T.R., JA-7031
Primmerman, C.A., JA-7031
Principe, J., MS-11313
Puliafito, C.A., JA-7116
Quatieri, T.F., JA-7133, MS-10151A,
MS-10159, MS-11017, MS-11020
Rabideau, D., MS-11063
Racamato, J.P., MS-11345
Radisavljevic, A., MS-11313
Radomski, A.T., JA-7066
Raffel, J.I., JA-7151
Raisanen, A.V., JA-7074
Rasmussen, R.G., MS-10947
Raup, R.C., TR-1020
Rauschenbach, K.A., JA-7090, JA-7124,
JA-7208, JA-7211, JA-7231, MS-11129,
MS-11221, MS-11332
Raybon, G., JA-7208, MS-11129
Rediker, R.H., JA-6964, JA-7169
Reich, R.K., JA-7093, JA-7180
Reynolds, D.A., JA-6987, JA-7094, JA-7133,
MS-10518, MS-11017, MS-11020
Rhodes, R.R., JA-6926
Robasky, F.M., MS-10947
Robey, F.C., MS-11202
Robinson, E., MS-10778
Rogers, T.J., MS-11122
Rooney, M., MS-11037
Rork, E.W., MS-10524
Rose, R.C., JA-6987
Rothschild, M., JA-7202, JA-7240,
MS-10485, MS-11041
Salim, S., JA-7222
Sanchez, A., JA-7206, MS-10988
Sasiela, R.J., TR-1017, MS-10690
Saunders, K.W., MS-11228
Savoye, E.D., JA-7093, MS-11345
Scarborough, S.M., MS-11042
Schultz, H.B., MS-10690
Schultz, K.I., JA-7115
Schuman, J.S., JA-7116
Seibert, M., MS-11274, MS-11345
Seward, D.C. IV, TR-1009
Shank, E.M., JA-7238

Author Index

- Shankaranarayanan, N.K., MS-10614
 Shaw, G.A., MS-11074
 Shnidman, D.A., JA-7036A, JA-7128
 Singer, E., MS-10506
 Smith, C.B., MS-10949
 Smith, F.W., MS-11122
 Smith, P.D., JA-7199
 Smith, S.R., JA-7180
 Snail, K.A., JA-7050
 Sobolewski, J., MS-10570
 Song, W.S., MS-10957
 Spiro, C., JA-7050
 Sridharan, R., MS-10778
 Steele, W.R., MS-11346
 Steinhardt, A.O., MS-11063
 Stevens, M.L., MS-10629, MS-11062
 Stokes, G.H., MS-10790
 Stuart, J.S., TR-1020
 Sturdy, J.L., JA-7280
 Sturgess, K., MS-11042
 Sultana, J.A., MS-11161
 Summers, C.L., MS-10501A, MS-10570
 Susalka, R., JA-7050
 Svensson, G.K., MS-10445A
 Swanson, E.A., JA-7090, JA-7116, JA-7131,
 JA-7159, JA-7189, JA-7208, MS-10615,
 MS-11103, MS-11104, MS-11129
 Sweeting, B., JA-7050
 Temme, D.H., MS-10698A
 Tennyson, P.D., MS-10524
 Titi, G.W., MS-11018
 Tolmunen, T.J., JA-7074
 Tonry, J.L., JA-7093
 Troxel, S.W., MS-10946
 Tsang, D.Z., JA-7124, MS-10944C
 Turner, G.W., JA-7167, JA-7188, JA-7206,
 JA-7210, MS-10927, MS-10988,
 MS-10999
 Twichell, J.C., JA-7050, JA-7165
 Van Andrews, G., JA-7237
 Vandevenne, H.F., JA-7277
 Varma, R.S., JA-7180
 Ventura, T.M., JA-7066
 Verly, J.G., TR-1006, TR-1008
 Vernon, M.A., JA-7237
 Viggh, H., MS-10778
 Vo, H-D.H., JA-7157
 Walpole, J.N., JA-7146
 Wang, C.A., JA-6964, JA-7124, JA-7155,
 JA-7169, JA-7222
 Ward, J., MS-11193
 Waxman, A.M., MS-11274, MS-11345,
 MS-11346
 Weber, M.E., MS-10943
 Weiner, S.D., TR-1023
 Weinstein, C.J., MS-10498
 Weiss, J.A., JA-7107, MS-11114
 Wells, R.O., Jr., MS-11056
 White, W.A., JA-7237
 Whitmire, D.A., JA-7237
 Wilhelmsen, H., JA-7279, JA-7280
 Willsky, A.S., MS-11315
 Willwerth, F.G., MS-11137
 Wilson, F.W., JA-7160, MS-10948,
 MS-10949
 Wiseman, A., MS-10778
 Wolfson, M.M., JA-7199
 Wong, W.S., JA-7127A, JA-7211, JA-7231,
 MS-11221
 Wood, M.L., JA-7195
 Woodhouse, J.D., JA-7124, JA-7146
 Wyschogrod, D., MS-10690
 Zandian, M., MS-10988
 Zayhowski, J.J., JA-6853, JA-7110, JA-7190
 Zissman, M.A., TR-1009, TR-1010,
 MS-10506, MS-11001, MS-11017
 Zollars, B.G., JA-7031
 Zucca, R.R., MS-1098

Subject Index

COMMUNICATION NETWORKS
JA-7131

COMPACT DIODE LASER SYSTEMS
MS-11031

COMPARATORS
MS-11129

COMPUTER SIMULATION
MS-10504

CONFLICT-AVOIDANCE ALGORITHM
JA-7089

CONSTANT FALSE ALARM RATE
JA-6800, JA-7128, MS-11313

CONTENTS-BASED IMAGE RETRIEVAL
TR-1017

CONTINUOUS SPEECH RECOGNITION
MS-11016

CONTINUOUS WAVE
MS-11329

CORONARY ARTERY BYPASS
MS-11294

COVARIANCE ESTIMATION
MS-11202

COVARIANCE MATRIX
MS-11021

CRACK TRAPPING
JA-7085

CRITICAL CURRENT
TR-1024

CRYSTAL FIELD STABILIZATION
TR-1024

CRYSTALLOGRAPHY
TR-1021

DATA PROCESSING
TR-1020

DEFORESTATION
MS-10730

DETECTION ALGORITHM
JA-6800

DEVICES
MS-11122

DIAGONAL LOADING
JA-7171

DIALECT IDENTIFICATION
MS-11001

DIAMOND CARBON
JA-7165

DIAMOND SUBSTRATES
JA-7050

DIELECTRIC FRACTURES
MS-11152

DIHEDRAL MODEL
MS-11347

DIODE LASERS
JA-7124, JA-7146, JA-7204, JA-7206, JA-7208,
JA-7210, MS-10999

DIODE-PUMPED LASERS
JA-7110, JA-7234

SUBJECT INDEX

ACOUSTIC LIKELIHOODS TR-1010	AIRBORNE RADAR ARRAYS MS-11202
ACOUSTIC SIGNALS MS-10151A	AIRBORNE SURVEILLANCE MS-11018
ACTIVE DELAY-LINE STABILIZATION MS-10615	AIRCRAFT JA-7245
ADAPTIVE ARRAYS JA-6800, JA-7171	AIRCRAFT MANEUVERS JA-7195
ADAPTIVE NULLING MS-11159, MS-11203	AIRCRAFT WAKE VORTICES MS-11254
ADAPTIVE OPTICS JA-7031, MS-10438, MS-11177	AIRPORT SURFACE CONTROL JA-7277, JA-7278, JA-7279
ADAPTIVE PROCESSING MS-11193	AIRPORT SURFACE DETECTION MS-10690
AIR DEFENSE SYSTEMS TR-1023	AIRPORT SURFACE TRAFFIC CONTROL JA-7280
AIR-GROUND COMMUNICATIONS SYSTEM JA-7139	AIRPORT SURVEILLANCE JA-7279
AIR TRAFFIC CONTROL JA-7089, JA-7104, JA-7160, JA-7198, JA-7203, JA-7238, JA-7245, JA-7278, JA-7280, JA-7285, MS-10931, MS-10947, MS-10948, MS-10952, MS-10953, MS-11037	AIRPORT SURVEILLANCE RADAR JA-7104, JA-7245, MS-10943, MS-10957
AIR TRAFFIC SURVEILLANCE JA-7089, JA-7238	ALGORITHMS JA-7189, JA-7199, JA-7277, MS-10964, MS-11254
AIRBORNE EARLY WARNING PLATFORMS MS-11018	ALL-DRY RESIST MS-11248
AIRBORNE INFRARED IMAGER MS-11161	ALL-OPTICAL NETWORK MS-11062
AIRBORNE RADAR MS-11193	ALUMINUM GALLIUM ANTIMONIDE JA-7222

Subject Index

ALUMINUM GALLIUM ARSENIDE
JA-6964, JA-7124

ALUMINUM GALLIUM ARSENIDE
ANTIMONIDE
JA-7167, MS-11001

ALUMINUM GALLIUM ARSENIDE/
GALLIUM ARSENIDE
JA-7169

ALUMINUM GALLIUM ARSENIDE/
GALLIUM ARSENIDE PHOSPHIDE
JA-7183

AMORPHOUS SILICON
JA-7240

AMPLITUDE
MS-11020

AMPLITUDE MODULATION
JA-7127A, JA-7211

ANTENNAS
MS-11137

ASE CANCELLATION
JA-7131

ASR-9
JA-7104, JA-7245, MS-10957

ASTEROIDS
MS-10524

ATMOSPHERIC COMPENSATION
MS-10438

ATMOSPHERIC TURBULENCE
COMPENSATION
JA-7031

AUGMENTATION CARD
JA-7245

AUTOMATED AIRCRAFT TRACKING
MS-10690

AUTOMATIC DEPENDENT SURVEILLANCE
JA-7112, MS-11228

AUTOMATIC LANGUAGE IDENTIFICATION
MS-10506

AUTOMATIC SHIP CLASSIFICATION
MS-11229

AUTOMATIC SPEECH RECOGNITION
JA-7157

AUTOMATIC TARGET RECOGNITION
TR-1008, JA-7145A, MS-11313, MS-11315

AUTONOMOUS NAVIGATION
MS-11032

AVIATION WEATHER DEVELOPMENT
PROGRAM
JA-7203

AZIMUTH
MS-10964

BACK PROPAGATION
MS-10510

BEACON SYSTEMS
JA-7112

BEAM STEERING
MS-11329

BEAMFORMING
MS-11202, MS-11329

Subject Index

BENCHMARKS
MS-10994A

BIT ERROR RATE
JA-7209

BRAGG RESONANCE
TR-1019

BRAGG SECTION TUNING
MS-10614

BRAGG SPIKES
TR-1019

BREAST CARCINOMAS
MS-10445A

BRITTLE SOLIDS
JA-7085

BROAD-STRIPE DEVICES
JA-7183

BROADBAND
JA-7131

BROADBAND ANTENNAS
JA-7168

BROADBAND PHENOMENOLOGY
MS-10790

BUFFERS
MS-11122

CANTILEVER BEAMS
JA-7085

CARABAS SENSOR
MS-11043

CARDIAC BYPASS
MS-11294

CCD
JA-7180, MS-11345

CCD IMAGER
JA-7093

CELLULAR TELEPHONES
MS-11133, MS-11277

CHARGE-COUPLED DEVICE (See CCD)

CHEMISTRY
TR-1021

CHIP-SETS
MS-10956

CIRCUIT DESIGN
MS-10477B

CIRCUIT POWER-COMBINING
JA-7170

CIRCULAR ERROR PROBABILITY
JA-7036A

CIRCULATORS
JA-7107

CLEAN SPEECH
TR-1010, JA-7094

CLOCK SYNCHRONIZATION
MS-11129

CLUTTER
TR-1019, JA-6920, MS-10957, MS-11202,
MS-11203, MS-11315

COARSE GRAIN PARALLELISM
MS-11063

COHERENT DETECTION
MS-11177

Subject Index

COLOR VISION
MS-11345

COMBAT IDENTIFICATION
TR-1023

COMMAND AND CONTROL SYSTEMS
MS-11032

COMMUNICATION NETWORKS
JA-7131

COMPACT DIODE LASER SYSTEMS
MS-11031

COMPARATORS
MS-11129

COMPUTER SIMULATION
MS-10504

CONFLICT-AVOIDANCE ALGORITHM
JA-7089

CONSTANT FALSE ALARM RATE
JA-6800, JA-7128, MS-11313

CONTENTS-BASED IMAGE RETRIEVAL
TR-1017

CONTINUOUS SPEECH RECOGNITION
MS-11016

CONTINUOUS WAVE
MS-11254

CORONARY ARTERY BYPASS
MS-11294

COVARIANCE ESTIMATION
MS-11202

COVARIANCE MATRIX
MS-11021

CRACK TRAPPING
JA-7085

CRITICAL CURRENT
TR-1024

CRYSTAL FIELD STABILIZATION
TR-1024

CRYSTALLOGRAPHY
TR-1021

DATA PROCESSING
TR-1020

DBR LASERS
MS-10614

DEFORESTATION
MS-10730

DEMODULATION
MS-10615

DETECTION ALGORITHM
JA-6800

DEVICES
MS-11122

DIAGONAL LOADING
JA-7171

DIALECT IDENTIFICATION
MS-10999

DIAMOND CARBON
JA-7165

DIAMOND SUBSTRATES
JA-7050

DIELECTRIC FRACTURES
MS-11152

Subject Index

DIFFERENTIAL PHASE SHIFT KEYING
RECEIVERS (See DPSK RECEIVERS)

DIHEDRAL MODEL
MS-11347

DIODE LASERS
JA-7124, JA-7146, JA-7204, JA-7206,
JA-7208, JA-7210, MS-11001

DIODE-PUMPED LASERS
JA-7110, JA-7234

DIODES
JA-7074, JA-7231

DIRECT DETECTION
JA-7180, MS-11177

DIRECT DIGITAL SYNTHESIZER
JA-7230

DIRECT WRITING
MS-10779

DISCRIMINATING TARGETS
MS-11315

DISTRIBUTED BRAGG-REFLECTOR
LASERS
MS-10614

DISTRIBUTED FEEDBACK LASER
JA-7090

DOPPLER FREQUENCY SPECTRA
TR-1019

DOPPLER RADAR
JA-7199

DOPPLER SPECTRUM
TR-1019

DPSK RECEIVERS
MS-10615

DYE LASERS
JA-6853

EHF
MS-11159

EHF SATELLITES
JA-7230

ELECTRIC FIELD INTEGRAL EQUATION
MS-11043

ELECTRICAL BANDWIDTH
MS-11237

ELECTRON FIELD EMISSION
JA-7165

ELECTRON HOPPING
TR-1024

ELECTRONIC MICRODEVICE DESIGN
JA-7180

ELECTROOPTIC MODULATOR
MS-10524

ELECTROOPTICS
JA-6920, MS-10570

ELEMENT PATTERNS
MS-11137

ELEVATION ESTIMATION
MS-10964

EMBEDDED DIGITAL SIGNAL
PROCESSORS
MS-11074

EMISSIVITY MEASUREMENT
TR-1018

Subject Index

EPITAXIAL GROWTH
JA-7222

EXPECTATION-MAXIMIZATION
ALGORITHM
MS-11202

EXPERT SYSTEMS
JA-7104

EXTREME ULTRAVIOLET
MS-10485

EXTREMELY HIGH FREQUENCY (See EHF)

EYES
JA-7116

FABRY-PEROT FILTER
JA-7209

FAST HOPPING SYNTHESIZERS
JA-7230

FAST SUBSPACE TRACKING ALGORITHM
MS-11063

FERRITE PHASE SHIFTERS
MS-10698A

FERRITES
JA-7107

FIBER-DISTRIBUTED DATA INTERFACE
MS-11062

FIBER OPTICS
MS-11103

FIELD-EFFECT TRANSISTOR
JA-7033, JA-7194

FIELD EMITTERS
JA-7165

FIGURE-OF-MERIT
JA-7170, MS-10510

FILTERS
JA-7211

FINE GRAIN PARALLELISM
MS-11063

FOLIAGE
MS-11043

FOURIER DECONVOLUTION
JA-7293

FREE-SPACE
MS-10944C

FREE-SPACE OPTICAL COMMUNICATIONS
JA-7189, MS-11104

FREQUENCY
JA-7175, MS-10614, MS-11020

FREQUENCY DIVISION MULTIPLEXING
MS-10629, MS-11062

FREQUENCY DOMAIN
MS-11237

FREQUENCY HOPPING
MS-11133

FREQUENCY MULTIPLIERS
JA-7074

FREQUENCY SHIFTERS
JA-7131

FREQUENCY STABILITY
MS-10501A

FUNCTIONAL TEMPLATE CORRELATION
TR-1017

Subject Index

FUNCTIONAL TEMPLATES
TR-1006

FUSES
JA-7152

FUSIBLE CIRCUITS
JA-7151

GAIN CONTROL
MS-11401

GALLIUM ANTIMONIDE
MS-11001

GALLIUM ARSENIDE
JA-7154, JA-7155, JA-7174, JA-7237,
MS-11122

GALLIUM INDIUM ARSENIDE
ANTIMONIDE
JA-7167, MS-11001

GAS LASERS
JA-6853

GATE ARRAYS
JA-7066

GATE CURRENTS
JA-7194

GATE INSULATORS
JA-7174, JA-7194

GAUSSIAN MIXTURE MODELS
JA-6987

GAUSSIAN MODELS
MS-10518

GEOMETRIC OPTICS
TR-1008

GEOSTATIONARY SATELLITES
TR-1018

GHOST ARTIFACT
TR-1006

GIMBALS
MS-11161

GLOBAL POSITIONING SYSTEM (See GPS)

GLOBAL VEGETATION
MS-10730

GPS SATELLITE
TR-1018

GPS-SQUITTER
JA-7112, MS-11075, MS-11228

GROUND-BASED FIBER OPTIC NETWORKS
MS-11103

GROUND-BASED RADAR
MS-11075

GROUND-BASED SURVEILLANCE
SYSTEMS
MS-11032

GROUND-BASED TELECOMMUNICATIONS
MS-11104

GROUND CLUTTER
MS-11193

GUST FRONT DETECTION
MS-10946

HEAT SINKS
JA-7208

HETERODYNE DETECTION
JA-7118, MS-10629

Subject Index

HETEROEPITAXY
JA-7050

HIDDEN MARKOV MODEL
TR-1009

HIERARCHICAL LEARNING
MS-11274

HIGH DATA RATE COMMUNICATIONS
MS-11104

HIGH DEFINITION IMAGING
MS-11318

HIGH-EARTH-ORBIT SATELLITES
TR-1020

HIGH-EFFICIENCY TERMINATIONS
MS-11245

HIGH GAIN ANTENNAS
MS-11329

HIGH POWER DIODE ARRAYS
MS-10988

HIGH RESOLUTION ADAPTIVE ARRAYS
MS-11063

HIGH RESOLUTION MEASUREMENTS
MS-11020

HIGH-TEMPERATURE SUPERCONDUCTORS
TR-1024

HOLMIUM:YTTRIUM ALUMINUM GARNET
JA-7208

HORIZONTAL MANEUVERING
JA-7195

HOUGH TRANSFORM
TR-1006

HYPERBOLIC HOUSEHOLDER ALGORITHM
MS-11021

HYPERTHERMIA
MS-10445A

HYSTERESIS
JA-7175

IMAGE COMPRESSION
MS-11056

IMAGE MINING
TR-1017

IMAGE PROCESSING
JA-7199

IMAGE RESOLUTION
JA-7093

IMAGE RESTORATION
JA-7293

IMAGERY
MS-11315

IMAGING
JA-7116, JA-7202, MS-11042

INDIUM ALUMINUM ARSENIDE
JA-7074

INDIUM ALUMINUM ARSENIDE
ANTIMONIDE/GALLIUM ANTIMONIDE
MS-11401

INDIUM ARSENIDE ANTIMONIDE
MS-10927

INDIUM ARSENIDE ANTIMONIDE/INDIUM
ALUMINUM ARSENIDE ANTIMONIDE
JA-7210

Subject Index

INDIUM GALLIUM ARSENIDE
JA-7074, JA-7124

INDIUM GALLIUM ARSENIDE/ALUMINUM
GALLIUM ARSENIDE
JA-7204

INDIUM GALLIUM ARSENIDE PHOSPHIDE
JA-7146

INDIUM PHOSPHIDE
JA-7146, JA-7194

INFRARED ASTRONOMY SATELLITE
TR-1018, TR-1022, MS-10411

INFRARED METRIC DATA
TR-1022

INFRARED PHOTODETECTORS
JA-7118, MS-11237

INFRARED SENSOR
MS-11161

INLAND WATER
TR-1019

INTEGRALS
JA-7036A

INTEGRATED CIRCUITS
JA-7066, JA-7152, JA-7201, JA-7230,
JA-7237, MS-11114, MS-11152

INTEGRATED OPTICS PHASE
MODULATION
JA-7169

INTEGRATED TERMINAL WEATHER
SYSTEM
JA-7160, JA-7199, JA-7203, MS-10946,
MS-10947, MS-10948, MS-10949, MS-10953,
MS-10957, MS-11037

INTERCONNECTION PROCESSES
MS-10779

INTERFEROMETERS
JA-6964

INVERSE SYNTHETIC APERTURE RADAR
IMAGERY
MS-11229

JAMMING
JA-7171, MS-11193

JITTER
JA-7090

L-BAND CLUTTER EXPERIMENT
TR-1019

LADAR
TR-1006

LAKE BACKSCATTER
TR-1019

LANGUAGE IDENTIFICATION
TR-1010, MS-10999

LANGUAGE MODELING
TR-1010

LASER COMMUNICATIONS
MS-11226

LASER DIODES
JA-7183

LASER DIRECT WRITING
MS-10779

LASER DYNAMICS
JA-6853

Subject Index

LASER GUIDE STAR MS-10438	LINEAR-PREDICTIVE CODING JA-7157
LASER LINKING JA-7066	LINEAR-TRANSITION PHASE SHIFT KEYING JA-6926
LASER PHYSICS JA-6853	LINEARIZED MODULATORS JA-7101
LASER RADIATION JA-6853	LITHOGRAPHY MS-10477B
LASER TRANSMISSION MS-10629	LOGISTIC REGRESSION MS-11294
LASER VIBRATION SIGNALS MS-10504	LOW ALTITUDE AIR SURVEILLANCE MS-11228
LASERCOM MS-11226	LOW FREQUENCY SYNTHETIC APERTURE RADAR MS-11130
LASERS JA-7048, JA-7115, JA-7211, JA-7234, MS-10477B, MS-10501A, MS-10927, MS-11103, MS-11401	LOW-LEVEL WIND SHEAR ALERT SYSTEM JA-7196
LDU DECOMPOSITIONS MS-11021	LOW-POWER ATMOSPHERIC COMPENSATION EXPERIMENT JA-7115
LENSES JA-7202	LOW-TEMPERATURE-GROWN GALLIUM ARSENIDE JA-7154, JA-7174, MS-11122
LIFE CYCLE COSTS MS-10994A	LUMINESCENT POROUS SILICON JA-7240
LIGHTWAVE RECEIVERS JA-7209	MACH-ZEHNDER MODULATOR JA-7159
LIMITED-HEIGHT VERTICALITY TR-1006	MACHINE INTELLIGENCE JA-7104, JA-7199, MS-10946
LINEAR ARRAYS JA-7124	

Subject Index

MACHINE LEARNING
TR-1017

MAGNETIC TUNING
MS-10524

MASS-TRANSPORT FABRICATION
MS-11031

MAXIMUM LIKELIHOOD ALGORITHM
JA-6920

MEL FILTER BANK
JA-7157

MEMPHIS
MS-10931

METAL CONNECTIONS
JA-7066, MS-11152

METAL INSULATOR SEMICONDUCTOR
FIELD-EFFECT TRANSISTORS (See
MISFETs)

METAL INTERCONNECTS
JA-7066

METALLIC CONNECTIONS
JA-7201

MICROBURSTS
JA-7199

MICROCELLS
MS-11277

MICROCHIP LASERS
JA-7110, JA-7190

MICROCIRCUIT TECHNOLOGY
MS-11114

MICROELECTRONICS
MS-10477B

MICROLENSSES
MS-11031

MICROMECHANICS
MS-10477B

MICROOPTICS
MS-11031

MICROWAVE APPLICATIONS
JA-7063

MICROWAVE PHASE SHIFTERS
MS-10698A

MICROWAVE RADAR
TR-1020

MICROWAVE RECTIFICATION
JA-7118

MICROWAVES
TR-1019

MID-WAVE INFRARED
MS-10570

MIDCOURSE SPACE EXPERIMENT
TR-1022, MS-10411, MS-10596A,
MS-10778, MS-10790, MS-11032

MILLIMETER WAVE APPLICATIONS
JA-7063

MINE DETECTION
MS-11042

MINEFIELD DETECTION
MS-11130

MINELIKE TARGETS
MS-11042

MIRRORS
MS-11129

Subject Index

MISFETs JA-7174	MULTIDIMENSIONAL SCALING TR-1009
MOBILE TELEPHONE SYSTEMS MS-11133	MULTILAYER PERCEPTRON MS-11294
MODE S JA-7112, JA-7139, MS-11075	MULTIPLE BEAM ANTENNA MS-11159
MODE-LOCKING JA-7206	MULTIPLE BLOCKS TR-1021
MODULATION JA-6926	MULTIPLEXING MS-11221, MS-11332
MODULATORS JA-7101, JA-7159, JA-7237	MULTIRESOLUTION MS-11315
MOLECULAR BEAM EPITAXY JA-7188, MS-10927	N-GRAM MODELING MS-10506
MONOPOLE PHASED ARRAY MS-10445A	NATIONAL AIRSPACE SYSTEM MS-11075
MOUNTAINTOP PROGRAM MS-11018	NAVAL VESSELS MS-11229
MOVING TARGETS JA-6920	NEODYMIUM:YTTRIUM VANADIUM OXIDE JA-7190
MULTICHANNEL HETERODYNE DETECTION MS-10629	NETTING TR-1023
MULTICHIP MODULES MS-10779	NETWORK MANAGEMENT MS-11060
MULTIDIMENSIONAL ADAPTIVE ARRAY PROCESSING MS-11203	NEURAL NETWORKS MS-11229, MS-11274, MS-11294, MS-11346
MULTIDIMENSIONAL ARRAYS MS-10964	NIGHT VISION MS-11345
	NIOBIUM NITRIDE JA-7175

Subject Index

- NOISE
JA-7033, MS-11017
- NONCRYSTALLINE SILICON
JA-7240
- NORMALIZED DIFFERENCE VEGETATION INDEX
MS-10730
- NUCLEIC ACID HYBRIDIZATION
JA-7180
- OBJECT IDENTIFICATION
TR-1022
- OBJECT RECOGNITION
MS-11274
- OBSTACLE SPACING
JA-7085
- OLIGONUCLEOTIDE CHEMISTRY
JA-7180
- OMNIDIRECTIONAL JAMMING
JA-7171
- ONSET TIMES
JA-7133
- OPTICAL ANALOG LINKS
JA-7101
- OPTICAL BIT PHASE SENSING
JA-7206
- OPTICAL CARRIERS
JA-7090
- OPTICAL COHERENCE TOMOGRAPHY
JA-7116
- OPTICAL COMMUNICATIONS
JA-7189, MS-10944C, MS-11177
- OPTICAL DEMULTIPLEXER
MS-11332
- OPTICAL FILTERS
JA-7209
- OPTICAL INTERCONNECTIONS
MS-10944C
- OPTICAL LINKS
MS-11277
- OPTICAL LITHOGRAPHY
JA-7202, MS-10978, MS-11041
- OPTICAL LOGIC
MS-11332
- OPTICAL LOOP MIRRORS
JA-7206
- OPTICAL LOOPS
MS-11129
- OPTICAL MODULATION
JA-7231
- OPTICAL NETWORKS
JA-7131, MS-10629, MS-11060, MS-11332
- OPTICAL PHASE COMPARATORS
MS-11129
- OPTICAL RADAR
MS-11254
- OPTICAL RECEIVERS
JA-7189
- OPTICAL STORAGE
JA-7211, JA-7231
- OPTICAL SWITCHING
MS-11332

Subject Index

ORTHOGONAL TRANSFER JA-7093	PHOTOMIXERS JA-7154
PARAMETER TEMPERATURE DEPENDENCE TR-1024	PHOTONIC CRYSTALS JA-7063, JA-7168
PASSIVE OPTICAL SENSORS TR-1020	PHOTORESIST MS-10978
PENCIL BEAM RADAR MS-10957	PHYSICAL OPTICS TR-1008
PENETRATION DEPTH TR-1024	PLASMA ENHANCED CHEMICAL VAPOR DEPOSITION MS-11248
PERSONAL COMMUNICATIONS SERVICES MS-11329	POLAR ORBITING SATELLITES MS-10730
PHANTOM JA-7245	POLARIMETRY MS-11347
PHASE MEASUREMENTS JA-6964	POLARIZATION JA-7145A
PHASE NOISE JA-7033	POLARIZATION SCATTERING MATRIX TR-1008
PHASE SHIFTERS MS-10698A	POLARONS TR-1024
PHASED ARRAY MS-11137	POLYNOMIALS MS-10964
PHONEME RECOGNITION TR-1010, MS-10506, MS-10999	POWER-COMBINED ARRAYS JA-7170
PHONON SCATTERING TR-1024	POWER CONTROL MS-10614
PHONOTACTIC LANGUAGE MODELING MS-10999	PRECISION RUNWAY MONITOR JA-7238
PHOTOLITHOGRAPHY JA-7202, MS-10485, MS-10978, MS-11248	PROGRAMMABLE GATE ARRAYS JA-7201, MS-11152

Subject Index

PROPAGATION MEASUREMENTS
MS-11329

PSUEDOMORPHIC HIGH ELECTRON
MOBILITY TRANSISTORS
MS-11122

PULSE MODULATION
JA-7231

PULSE STORAGE
JA-7211

PULSE TRAIN GENERATION
JA-7159

PULSED OPERATIONS
JA-6853

Q-SWITCHING
JA-7048, JA-7190

QUANTUM WELL DIODE LASERS
MS-11001

QUANTUM WELL LASERS
JA-7183, JA-7188, MS-10988

QUANTUM WELLS
JA-7118, JA-7124, JA-7204, JA-7210,
MS-10927, MS-11237, MS-11401

QUASI-OPTICAL CIRCULATORS
JA-7107

QUASI-OPTICAL POWER COMBINING
JA-7170

QUASI-THREE-LEVEL LASERS
JA-7048

QUINTUPLERS
JA-7074

RADAR BACKSCATTER
TR-1019

RADAR DETECTION
JA-7128

RADAR FRONT-END SIGNAL PROCESSING
MS-10956

RADAR IMAGES
TR-1008, MS-10690

RADAR TARGET DETECTION
JA-7128

RAIL SYNTHETIC APERTURE RADAR
MS-11042

RANGE-DOPPLER IMAGERY
MS-11229

RANGE IMAGERY
TR-1006

RAPID PROTOTYPING OF APPLICATION-
SPECIFIC SIGNAL PROCESSORS
MS-11074

RAPID TUNABILITY
JA-7131

RECOGNITION
MS-11254

REFLECTION CIRCULATORS
JA-7107

REMOTE SENSING
TR-1017

RESIDENT SPACE OBJECTS
TR-1022, MS-10411, MS-10596A

Subject Index

RESISTS
MS-11248

RETINA
JA-7116

RIDGE-WAVEGUIDE LASERS
JA-7167, JA-7183

RIDGE WAVEGUIDES
JA-7124

RING NETWORK CIRCULATOR
MS-11114

ROBUST ESTIMATION
JA-6987

ROOT-ALLAN VARIANCE MEASUREMENTS
MS-10501A

RUNWAY LIGHTS
JA-7278, JA-7279, JA-7280

RUNWAYS
JA-7277, JA-7279

SATELLITE CHANNELS
JA-6926

SATELLITES
JA-7115

SATURABLE ABSORPTION
JA-7211

SCATTERING
MS-11018

SCHOTTKY-BARRIER FOCAL PLANES
MS-10570

SCINTILLATION
JA-7031

SEMICONDUCTOR DEVICES
JA-7146

SEMICONDUCTOR LASERS
MS-10988

SEMICONDUCTORS
JA-7154, JA-7204, JA-7210, JA-7231,
MS-10956

SIGNAL PROCESSING
TR-1020, JA-7157, MS-10994A, MS-11074

SILYLATION
MS-11041

SINGLE-BARRIER VARACTORS
JA-7074

SINGLE BLOCKS
TR-1021

SINGLE CRYSTALS
JA-7050

SINGLE-FREQUENCY TUNING
JA-7234

SINGLE SIDEBAND
MS-10524

SINUSOIDAL TRANSFORM CODER
MS-10159

SOLAR CELLS
TR-1018

SOLID STATE LASERS
JA-6853, JA-7190

SOLID STATE OSCILLATORS
JA-7033

Subject Index

SOLITON COMPRESSION

JA-7159

SOLITON TRANSMISSION

JA-7127A

SOLITONS

JA-7090

SPACE-BASED SPACE SURVEILLANCE

MS-10596A, MS-10790, MS-11032

SPACE-BASED VISIBLE

MS-10778, MS-10790, MS-11032

SPACE DEBRIS

MS-10596A

SPACE LASER COMMUNICATION TECHNOLOGY

MS-11226

SPACE OBJECT DETECTION

MS-10411

SPACE SURVEILLANCE

TR-1018, TR-1022, MS-10524, MS-10790

SPACE SURVEILLANCE SENSORS

TR-1020

SPACE-TIME ADAPTIVE PROCESSING

MS-11018, MS-11193

SPACE-TIME TECHNIQUE

MS-11203

SPACE-TO-GROUND

MS-11177

SPATIAL ARRAYS

JA-7170

SPATIAL-TEMPORAL DETECTION

JA-6920

SPEAKER IDENTIFICATION

JA-6987, JA-7094, JA-7133, MS-10518,
MS-11017, MS-11020

SPEAKER MODELS

MS-10518

SPECKLE

MS-11315

SPECKLE REDUCTION

MS-11056, MS-11346

SPECTRAL BANDWIDTH

MS-10730

SPECTRAL ESTIMATION TECHNIQUES

MS-11318

SPECTRAL LINEWIDTH

JA-7204

SPECTROGRAMS

MS-10504

SPEECH CODING

MS-10159

SPEECH FORMANTS

MS-11020

SPEECH RECOGNITION

TR-1009, JA-7133, MS-10498, MS-10506,
MS-10510, MS-11016

SPIN-STABILIZED SATELLITE

TR-1018

SPOKEN LANGUAGE TECHNOLOGY

MS-10498

STABILITY MEASUREMENTS

MS-10501A

Subject Index

STACK-DECODER
MS-11016

STORAGE RINGS
JA-7127A

STORM CELLS
MS-10953

STORM TRACKING
JA-7198

STORMFEST
MS-10949

SUBSPACE TRACKING
MS-11063

SUBSTRATES
MS-10779

SUPERCONDUCTIVITY
TR-1021

SUPERCONDUCTOR CIRCUITS
MS-10698A

SUPERCONDUCTORS
MS-11114

SUPERLATTICES
JA-7194

SUPERRESOLUTION
MS-11318

SURFACE ADHESION
JA-7085

SURFACE MATRICES
JA-7180

SURFACE SURVEILLANCE
MS-10690

SURFACE TRAFFIC AUTOMATION
SYSTEM
JA-7278

SURVEILLANCE
JA-7139, MS-11075

SURVEILLANCE RADAR
MS-11018

SWITCHES
JA-7152

SWITCHING DEVICES
JA-7151

SYNCHRONOUS OPTICAL NETWORK
MS-11062

SYNTHETIC APERTURE RADAR
TR-1008, JA-7145A, MS-10994A, MS-11042,
MS-11043, MS-11056, MS-11130, MS-11315,
MS-11318, MS-11346, MS-11347

SYNTHETIC BEACONS
MS-10438

SYNTHETIC FIBERS
MS-11245

SYNTHETIC SPEECH
MS-10159

TARGET DETECTION
JA-6920, MS-11042, MS-11043, MS-11193,
MS-11346, MS-11347

TARGET PRESCREENING
MS-11313

TCAS
JA-7112

Subject Index

TCAS II JA-7195	TERMINAL WINDS MS-10948
TELECOMMUNICATIONS MS-11221	TEXT-INDEPENDENT SPEAKER IDENTIFICATION JA-7094, MS-11017
TELEPHONE SPEECH TR-1010, JA-7094, MS-10506	THEATER AIR DEFENSE SYSTEMS TR-1023
TELEPHONE TRANSMISSION MS-11017	THERMAL ACTIVATION ENERGY TR-1024
TEMPERATURE JA-7175	THERMAL INFRARED IMAGERY MS-11345
TEMPERATURE MEASUREMENT TR-1018	THERMAL STRESS JA-7085
TEMPORAL ENVELOPE MS-10151A	THIN FILMS JA-7175
TENSILE STRENGTH JA-7183, MS-11245	THREE-AXIS STABILIZED SATELLITE TR-1018
TERMINAL AIR TRAFFIC CONTROL JA-7198	THREE-TERMINAL FUSE JA-7151, JA-7152
TERMINAL AIR TRAFFIC CONTROL AUTOMATION JA-7277	THULIUM:YTTRIUM VANADIUM OXIDE JA-7110
TERMINAL AREA WEATHER SENSING MS-10952	TIME-SCALE MODIFICATION MS-10151A
TERMINAL DOPPLER WEATHER RADAR JA-7160, JA-7196, MS-10943, MS-10946, MS-11037	TIMING MAINTENANCE JA-7127A
TERMINAL WEATHER INFORMATION FOR PILOTS MS-11037	TOOLKIT TR-1017
TERMINAL WEATHER NOWCASTS MS-10949	TOWER-CAB ALERTS JA-7279

Subject Index

TRACKING
MS-11254

TRAFFIC ALERT AND COLLISION AVOID-
ANCE SYSTEM (See TCAS)

TRAFFIC INFORMATION SERVICE
JA-7139

TRANSISTORS
MS-11122

TREE CLUTTER
TR-1019

TRI-SERVICE LASER RADAR
TR-1006

TRITERTIARYBUTYLALUMINUM
JA-7222

TUNABLE LASER
JA-7234

TUNABLE MODULATORS
MS-10524

ULTRAWIDEBAND
JA-7168, MS-11042

VAPOR ETCHING
JA-7155

VERIFICATION SYSTEMS
MS-10518

VERTICAL REPROJECTION
TR-1006

VERY LARGE SCALE INTEGRATION
MS-10956

VIBRATION PROCESSING
MS-10504

VIRTUAL ARRAYS
MS-11137

VISIBILITY
MS-10952

VISIBLE CCD FOCAL PLANE
MS-10524

VISIBLE INFRARED IMAGERY
MS-11345

VITERBI ALIGNMENT
MS-10510

VOCODERS
MS-10159

WAKE VORTEX
MS-10931

WATER VAPOR
MS-10730

WAVEGUIDE COMPONENTS
JA-6964

WAVEGUIDES
JA-7169

WAVELENGTH-DIVISION MULTIPLEXER
MS-11103

WAVELETS
MS-11056

WEATHER
MS-10947, MS-10948

WEATHER DETECTION
JA-7196

WEATHER FORECASTING
MS-10949

Subject Index

WEATHER SURVEILLANCE PROCESSOR
MS-10943

WELL-ADHERING FIBERS
JA-7085

WIDEBAND
JA-7131

WIDEBAND SPEECH
JA-7094

WIND
JA-7160, MS-10948

WIND SHEAR
JA-7196, JA-7199, MS-10943

WORD-SPECIFIC PHONEME
TR-1010

WORD SPOTTING
TR-1009, JA-7157, MS-10510

Y-JUNCTIONS
JA-6964

YTTERBIUM:YTTRIUM ALUMINUM
GARNET
JA-7234

YTTRIUM BARIUM COPPER OXIDE
JA-7175

193-nm LITHOGRAPHY
JA-7202, MS-10485, MS-10978, MS-11041,
MS-11248

2D GAMMA KERNELS
MS-11313

REPORT DOCUMENTATION PAGE**Form Approved**
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE 31 December 1995		3. REPORT TYPE AND DATES COVERED Bibliography	
4. TITLE AND SUBTITLE Unclassified Publications of Lincoln Laboratory — Volume 21				5. FUNDING NUMBERS C — F19628-95-C-0002	
6. AUTHOR(S) Publications Office and Library & Information Services					
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Lincoln Laboratory, MIT 244 Wood Street Lexington, MA 02173-9108				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) HQ Air Force Materiel Command AFMC/STSC Wright-Patterson AFB, OH 45433-5001				10. SPONSORING/MONITORING AGENCY REPORT NUMBER ESC-TR-96-028	
11. SUPPLEMENTARY NOTES None					
12a. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.				12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) Volume 21 of Unclassified Publications of Lincoln Laboratory lists reports published from 1 January to 31 December 1995, as well as updated information on earlier publications. Documents listed herein are generally no longer available from Lincoln Laboratory. Qualified Defense Technical Information Center (DTIC) users may purchase copies through normal DTIC channels. Others may purchase photocopies or microfiche from the U.S. Department of Commerce, National Technical Information Service, Springfield, Virginia 22161. When ordering, the six-digit AD number should be cited.					
14. SUBJECT TERMS Bibliography				15. NUMBER OF PAGES 68	
				16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT Unclassified		