

Appendices

Appendix A RLE Publications and Papers Presented

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RLE

*Celebrating
50 Years*

1946-1996

OF IMPACT & INNOVATION

Appendix A. RLE Publications and Papers Presented

The first section of this bibliography includes papers and talks presented by RLE faculty, staff and students during 1995 and is in alphabetical order by conference name. Reprints of these papers may be obtained by contacting the authors directly.

Section 2 includes an alphabetical listing by author of journal articles that were published and accepted or submitted for publication. Book chapters by RLE authors are listed in section 3. Section 4 of this bibliography lists RLE general publications and technical reports, and section 5 is a list of RLE theses submitted during 1994. Theses and technical reports may be ordered from Document Services, MIT Libraries, Room 14-0551, 77 Massachusetts Avenue, Cambridge, Massachusetts 02139-4307; telephone (617) 253-5668; email: docs@mit.edu; fax: (617) 253-1690.

A.1 Meeting Papers

A.1.1 Papers Presented

Acoustical Society of America Meeting, St. Louis, Missouri, November 27-December 1, 1995.

Krause, J., and L.D. Braida. "The Effects of Speaking Rate and Speaking Mode on Intelligibility."

Acoustical Society of America Meeting, 129th, Washington, DC, May 30-June 3, 1995.

Dilley, L., and S. Shattuck-Hufnagel. "Individual Differences in the Glottalization of Vowel-Initial Syllables."

Perkell, J., M. Matthies, M. Svirsky, and R. Wilhelms-Tricarico. "Clarity Versus Effort in Speech Production: Initial Results of a Pilot Study." (poster presentation)

Rabinowitz, W.M., D.K. Eddington, J. Tierney, and L.A. Delhorne. "Preliminary Evaluations of Cochlear Implantees Using a Wearable CIS Processor."

Shinn-Cunningham, B. "A Dynamic, Psycho-physical Model of Adaptation in Localization Experiments."

Wozniak, J., H. Lane, J. Manzella, J. Perkell, M. Matthies, M. Svirsky, M. O'Connell, and C. Mitchell. "Intersyllable Regulation of FO and SPL With and Without Auditory Feedback." (poster presentation)

American Astronomical Society Meeting, 185th, Tucson, Arizona, January 7-12, 1995.

Fletcher, A.B., S.R. Conner, and B.F. Burke. "First Results from 8.4 GHz VLA Imaging of 1800 Southern Sky Parkes-Mit-NRAO (PMN) Radio Sources."

Katz, C.A., J.N. Hewitt, C.B. Moore, and J.D. Ellithorpe. "The STARE Project: A Survey for Transient Astronomical Radio Emission." (poster session)

American Physical Society Meeting, San Jose, California, March 20-24, 1995.

Capaz, R.B., H. Lim, and J.D. Joannopoulos. "Ab initio Studies of the Initial Stages of GaN Growth on SiC."

Villeneuve, P.R. "Novel Applications of Photonic Band Gap Materials."

Wyss, R.A., F. Rana, Q. Hu, M.J. Rooks, and A. Furster. "Frequency Dependent Behavior of Photon-assisted Transport through a Planar Resonant Tunneling Transistor."

American Physical Society, Division of Plasma Physics Meeting, 37th Annual, Louisville, Kentucky, November 4-10, 1995.

Airoldi, A., G. Cennachi, and B. Coppi. "Enhanced Confinement Conditions and the Ignitor Experiment."

Bers, A., S.D. Schultz, and A.K. Ram. "Mode Conversion to Ion-Bernstein Waves of Fast Alfvén Waves with Finite Poloidal Wavenumber in Tokamak Geometries." (poster presentation)

Bombarda, F., B. Coppi, C. Fiore, S. Golovato, et al. "Transport Regimes in High Density Plasmas Produced by Alcator C-Mod."

Bonoli, P.T., M. Porkolab, L.E. Sugiyama, and C. Kessel. "Simulations of MHD Stable Operating Scenarios in the Tokamak Physics Experiment (TPX)."

- Carpignano, F., B. Coppi, M. Nassi, and the Ignitor Project Group. "Prototypes Construction in the Ignitor Program."
- Cennachi, G., B. Coppi, F. Ferro, M. Gasparotto, C. Rita, M. Roccella, and L. Lanzavecchia. "Plasma Evolution Scenarios in the Ignitor-Ult Experiment."
- Coppi, A.C., and B. Coppi. "'Explosive' Periodic Bursts and Generalized Bursting Equation."
- Coppi, B., and L.E. Sugiyama. "Collisionless Magnetic Reconnection."
- Coppi, B., P. Detragiache, and S. Migliuolo. "The Issue of Internal Modes in Ignition Experiments."
- Daughton, W., and B. Coppi. "Anomalous Transport of Angular Momentum and Microscopic Dissipative Processes."
- Detragiache, P., F. Bombarda, and B. Coppi. "Recent Results on Confinement: Physics Basis of Ignitor."
- Ernst, D.R., B. Coppi, S.D. Scott, and the TFTR Group. "Transport Analysis of Rotating TFTR Plasmas and Modes Driven by Velocity Gradients."
- Lanzavecchia, L., B. Coppi, R. Andreani et al. "Poloidal Field Coils Design for the Ignitor-Ult Experiment."
- Migliuolo, S. "Nonlinear and Nonlocal Dynamics of the Equatorial Spread-F."
- Park, W., G.Y. Fu, H.R. Strauss, and L.E. Sugiyama. "Multi-Level Numerical Simulation of Tokamak Plasmas."
- Penn, G., C. Riconda, and B. Coppi. "The Distribution of Fusion Products in a Tokamak Reactor, and Related Effects."
- Porkolab, M., P.T. Bonoli, S. Golovato, J. Ramos et al. "Advanced Tokamak Physics Scenarios in Alcator C-Mod."
- Pravia, M., B. Coppi, W. Daughton, L.E. Sugiyama, et al. "Transport Simulations of Alcator C-Mod ICRF Plasmas."
- Qu, Y.L., J.E. Rice, E.S. Marmor, and F. Bombarda. "X-ray Observations of Toroidal Rotation in Alcator C-Mod Plasmas."
- Ram, A., A. Bers, P. Bonoli, S.D. Schultz, V. Fuchs, A. Becoulet, and B. Saoutic. "Mode Converted Ion-Bernstein Waves for Heating and Current Drive." (talk)
- Ram, A., A. Bers, S.D. Schultz, and V. Fuchs. "Mode Conversion of Fast Alfvén Waves at the Ion-Ion Hybrid Resonance."
- Rice, J.E., J.L. Terry, E.S. Marmor, and F. Bombarda. "X-ray Observations of Up-Down Impurity Density Asymmetries in Alcator C-Mod Plasmas."
- Riconda, C., G. Penn, and B. Coppi. "The Interaction of High Energy Particles with Modes Near Harmonics of the Cyclotron Frequency."
- Schultz, S.D., A. Bers, and A.K. Ram. "RF Wave Effects on the Neoclassical Electron Distribution Function in Tokamaks." (poster presentation)
- Sugiyama, L.E., and W. Park. "Two Fluid Studies of Low m,n Instabilities."
- Vacca, L., A. Bers, and A.K. Ram. "RF-Induced Transport of Resonant Minority Species in ICRF-Heated Tokamaks." (poster presentation)
- Wang, Y., J.E. Rice, F. Bombarda, G. McCracken et al. "Impurity Screening Study of Various Alcator C-Mod Plasmas."
- American Society of Cell Biology Meeting, Washington, DC, December 9-13, 1995.*
- Boppart, S.A., M.E. Brezinski, B. Bouma, G.J. Tearney, E.A. Swanson, and J.G. Fujimoto. "In vivo Imaging of Developing Morphology Using Optical Coherence Tomography."
- American Statistical Associations Winter Conference, Raleigh, North Carolina, January 5-8, 1995.*
- Koita, R., and D.H. Staelin. "One-at-a-time Design Strategy for Two-level Factorial Experiments."
- Annual Meeting of the Division of Atomic, Molecular, and Optical Physics, Toronto, Ontario, Canada, May 16-19, 1995.*
- Ketterle, W. "Evaporative Cooling of Magnetically Trapped Sodium."
- Pritchard, D.E., M.S. Chapman, C.R. Ekstrom, T.D. Hammond, J. Schmiedmayer, A. Lenef, R. Rubenstein, and S. Wehinger. "Interferometry with Atoms and Molecules."
- Association for Research in Otolaryngology Meeting, 18th Mid-Winter, St. Petersburg, Florida, February 5-9, 1995.*
- Davis, C.Q., and D.M. Freeman. "Direct Observations of Sound-Induced Motions of the

- Reticular Lamina, Tectorial Membrane, Hair Bundles, and Individual Stereocilia."
- Delgutte, B. "Neural Correlates of Basic Psychophysical Functions."
- Freeman, D.M., and T.F. Weiss. "Species Dependence of Osmotic Responses of the Tectorial Membrane: Implications of Structure and Biochemical Composition."
- McKinney, M.F., and B. Delgutte. "Physiological Correlates of the Stretched Octave in Interspike Intervals of Auditory-Nerve Fibers."
- Rosowski, J.J., W.T. Peake, G.T. Huang, and D.T. Flandermeyer. "Middle-ear Structure and Function in Felidae."
- Shah, D.M., D.M. Freeman, and T.F. Weiss. "The Osmotic Responses of the Isolated, Unfixed Mouse Tectorial Membrane: Effect of Na⁺, K⁺, and Ca₂₊ Concentration."
- ARPA Rapid Prototyping of Application Specific Signal Processing*, Annual P.I. Meeting, Atlanta, Georgia, January 9-13, 1995.
- Oppenheim, A.V., G.W. Wornell, A. Chandrakasan. "Progress in Algorithms: Signal Processing with Chaos and Fractals."
- ARPA RASSP Conference*, Second, Washington, DC, July 1995
- Winograd, J., J. Ludwig, S.H. Nawab, A. Chandrakasan, and A.V. Oppenheim. "Approximate Processing and Incremental Refinement Concepts."
- ARPA Semi-Annual Microsystems Workshop*, Arizona, April 23-25, 1995.
- Devadas, S. "Code Optimization for Embedded DSP Processors."
- ASME International Mechanical Engineering Conference and Exposition*, San Francisco, California, November 12-17, 1995.
- Beauregard, G.L., M.A. Srinivasan, and N.I. Durlach. "The Manual Resolution of Viscosity and Mass."
- Karason, S., and M.A. Srinivasan. "Passive Human Grasp Control of an Active Instrumented Object."
- Colloquium on Quantum Electronics*, 25th Winter, Snowbird, Utah, January 3-5, 1995.
- Pritchard, D.E. "Atom Optics and Atom Interferometers."
- Conference on Advance Research in VLSI*, 16th, Chapel Hill, North Carolina, March 27-29, 1995.
- Cai, X., K. Nabors, J. White. "Efficient Galerkin Techniques for Multipole-Accelerated Capacitance Extraction of 3-D Structures with Multiple Dielectrics."
- Conference on Coherence and Quantum Optics*, Seventh, Rochester, New York, June 7-10, 1995.
- Lee, D., and N.C. Wong. "Quantum Phase Diffusion Noise Measurements in a cw Optical Parametric Oscillator."
- Pritchard, D.E. "Atom Interferometers and Atomic Coherence."
- Conference on Implantable Auditory Prostheses*, Asilomar, California, August 19-24, 1995.
- Rabinowitz, W.M., D.K. Eddington, J. Tierney, L.A. Delhorne, and M.E. Whearty. "Performance with Wearable CIS Processors."
- Conference on Ultrafast Transmission Systems in Optical Fibres*, Trieste, Italy, February 1995.
- Haus, H.A., F.I. Khatri, and W.S. Wong. "Soliton Interaction with Continuum."
- CLEO/QELS Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science Meeting*, Annual, San Francisco, California, November 1, 1995.
- Little, B.E., S.T. Chu, and H.A. Haus. "Micro-Ring Resonator Channel Dropping Filters."
- CLEO/QELS Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science*, Baltimore, Maryland, May 21-26, 1995.
- Boppart, S.A., M.R. Hee, J.G. Fujimoto, R. Birngruber, C.A. Toth, E.A. Swanson, C.P. Cain, G.D. Noojin, C.D. DiCarlo, W.P. Roach. "Dynamic Evolution and *in vivo* Tomographic Imaging of Laser-Induced Retinal Lesions Using Optical Coherence Tomography."
- Bouma, B., and J.G. Fujimoto. "Compact Gigahertz Repetition Rate Kerr-Lens Mode Locked Ti:Al₂O₃ Lasers Using Positive Dispersion."
- Darwish, A.M., G. Lenz, E. Ippen, G.Q. Le, J.P. Donnelly, S. Groves, and E. Swanson. "Frequency Conversion in Passive InGaAsP/InP Waveguides."
- Haus, H.A. "Squeezing in a Sagnac Fiber Loop."

- Haus, H.A., E.P. Ippen, W.S. Wong, F.I. Khatri, and K.R. Tamura. "Pulse Self-Ordering in Soliton Fiber Lasers."
- Lenef, A., M.S. Chapman, T.D. Hammond, J. Schmiedmayer, R. Rubenstein, E.T. Smith, and D.E. Pritchard. "Photon Scattering in an Atom Interferometer: Coherence Loss and Recovery."
- Lenz, G., E.T. Gellerman, E.P. Ippen, and K. Tamura. "Stretched-Pulse Mode-Locked Erbium-Fiber Laser Amplified by KCl:TI Color-Center Crystals."
- Lenz, G., E.T. Ippen, J.M. Wiesenfeld, M.A. Newkirk, V. Koreu, and R.M. Jopson. "Anisotropy in the Ultrafast Nonlinear Response of Semiconductor Optical Amplifiers With Polarization-Intensive Gain."
- Nelson, L., K. Tamura, E.P. Ippen, and H.A. Haus. "Additive Pulse Mode-Rocked Thulium-Doped Fiber Ring Laser."
- Tearney, G.J., M.E. Brezinski, M.R. Hee, B. Bouma, J.A. Izatt, E.A. Swanson, J.F. Southern, and J.G. Fujimoto. "Optical Biopsy in Human Tissue Using Optical Coherence Tomography and Microscopy."
- Villeneuve, P.R., S. Fan, I. Kurland, J.C. Chen, and J.D. Joannopoulos. "Photonic Band Gap Structures and Devices."
- Design Automation Conference*, San Francisco, California, June 11-17, 1995.
- Chou, M., T. Korsmeyer, and J. White. "Transient Simulations of Three-dimensional Integrated Circuit Interconnect Using a mixed Surface-Volume Approach."
- Devadas, S., and S. Malik. "A Survey of Optimization Techniques Targeting Low Power VLSI Circuits."
- Liao, S., S. Devadas, K. Keutzer, S. Tjiang, and A. Wang. "Code Optimization Techniques for Embedded DSP Microprocessors."
- Silveira, L.M., M. Kamon, and J. White. "Efficient Reduced-Order Modeling of Frequency-Dependent Coupling Inductances Associated with 3-D Interconnect Structures."
- European Conference on Integrated Optics*, Delft, The Netherlands, 1995.
- Chen, J.C., H.A. Haus, S. Fan, and J.D. Joannopoulos. "Optical Filters from Photonic Band Gap Air Bridges."
- European Physical Society Conference on Controlled Fusion and Plasma Physics*, 22nd, Bournemouth, England, July 3-7, 1995.
- Ram, A.K., A. Bers, S.D. Schultz, V. Fuchs, A. Becoulet, and B. Saoutic. "Mode-Converted Ion-Bernstein Waves in Tokamaks."
- European Research Conferences on Bose-Einstein Condensation*, Mont Ste. Odile, France, June 16-21, 1995.
- Davis, K.B., M-O. Mewes, M.A. Joffe, M.R. Andrews, and W. Ketterle. "Evaporative Cooling of Sodium Atoms."
- Frontiers in Electronic Low-Dimensional Systems Workshop on High Frequency Experiments on Low-Dimensional Systems*, First, Weizmann Inst. Sci., Israel, November 1995.
- Hu, Q. "FIR Studies of Mesoscopic Devices."
- Geosynchronous Microwave Souder Working Group Meeting*, Second, Washington, DC, December 6, 1995.
- Blackwell, W.J., and D.H. Staelin. "Temperature Retrieval Accuracy Stratified by Cloud Type and Atmospheric Moisture Content: Performance Analysis Using 50-425 GHz Bands."
- Gordon Research Conference on Atomic Physics*, Wolfboro, New Hampshire, July 2-7, 1995.
- Davis, K.B., M-O. Mewes, M.R. Andrews, and W. Ketterle. "Recent Progress in Evaporative Cooling of Sodium in a Modified Magnetic Trap." (poster session)
- Ketterle, W. "Evaporative Cooling of Sodium Atoms."
- Lenef, A., T.D. Hammond, M.S. Chapman, E. Smith, R.A. Rubenstein, J. Schmiedmayer, and D.E. Pritchard. "Applications of Atom Interferometry: Inertial Measurements, Molecules, and Index of Refraction of Gases."
- Pritchard, D.E. "Atom Interferometers."
- Gordon Research Conference on Lasers and Non-linear Optics*, Tilton, New Hampshire, July 30-August 4, 1995.
- Boivin, L., and H.A. Haus. "Quantum Cross-Phase Modulation."
- Bouma, B., and J.G. Fujimoto. "Compact Kerr Lens Modelocked Lasers." (poster session)
- Haus, H.A., W.S. Wong, and F.I. Khatri. "Continuum Generation by Perturbation of Soliton."

- Jones, D.J., H.A. Haus, E.P. Ippen, and C.R. Doerr. "Theory and Characterization of Asynchronous Modelocking."
- Lenz, G. "Femtosecond Studies of the Anisotropic in the Nonlinear Response of Semiconductor Optical Amplifiers with Isotropic Linear Gain."
- Haskins Laboratories*, New Haven, Connecticut, June 22, 1995.
- Perkell, J. "Acoustic Goals and Auditory Feedback in Speech Motor Control."
- Hearing Aid Research and Development Meeting*, Bethesda, Maryland, September 11-13, 1995.
- Desloge, J.G., D.P. Welker, W.M. Rabinowitz, and P.M. Zurek. "Microphone Array Hearing Aids with Binaural Output."
- Greenberg, J.E., and P.M. Zurek. "Evaluation of Adaptive Algorithm for Microphone-array Hearing Aids."
- Lum, D.S., and L.D. Braida. "A Psychoacoustic Comparison of Simulations of Sensorineural Hearing Loss Based on Dynamic Expansion and Additive Noise."
- Rabinowitz, W.M. "Noise Reduction." (invited introduction to session)
- Institute of Physics Annual Conference*, Telford, England, March 27-30, 1995.
- Fujimoto, J.G., M.R. Hee, G.J. Tearney, B.E. Bouma, M.E. Brezinski, E.A. Swanson, J. Schuman, and C.A. Puliafito. "Biomedical Imaging and Optical Biopsy Using Optical Coherence Tomography."
- International Astronomical Union Meeting 173: Conference On Astrophysical Applications of Gravitational Lenses*, Melbourne, Australia, July 9-14, 1995.
- Fletcher, A., B. Burke, S. Conner, L. Herold-Jacobson, D. Haarsma, F. Crawford, J. Cartwright, A. Cooray. "Preliminary VLA Snapshots of Southern Radio Sources from the Parkes-MIT-NRAO (PMN) Survey."
- Haarsma, D.B., J.N. Hewitt, B.F. Burke, and J. Lehar. "The VLA Light Curves of 0957+561, 1979-1994."
- Moore, C.B. and J.N. Hewitt. "Prospects for the Detection of Microlensing Time Delays."
- International Conference on Computer-Aided Design*, San Jose, California, November 6-9, 1995.
- Chou, M., and J. White. "Efficient Reduced-Order Modeling for the Transient Simulation of Three-Dimensional Interconnect."
- Liao, S., S. Devadas, and K. Keutzer. "Instruction Selection Using Binate Covering for Code Size Optimization."
- International Conference on Digital Signal Processing*, Limasol, Cyprus, June 1995.
- Hadjicostis, C.N. "Fault-Tolerant Computation in Semigroups and Semirings."
- International Conference on Electron, Ion, and Photon Beam Technology and Nanofabrication*, Phoenix, Arizona, May 30-June 2, 1995.
- Ferrera, J., M.L. Schattenburg, and H.I. Smith. "Analysis of Distortion in Interferometric Lithography."
- Moon, E.E., P.N. Everett, and H.I. Smith. "Simultaneous Measurement of Gap and Superposition in a Precision Aligner for X-ray Nanolithography."
- Savas, T.A., M.L. Schattenburg, J.M. Carter, and H.I. Smith. "Large-Area Achromatic Interferometric Lithography for 100 nm-Period Gratings and Grids With Novel Applications."
- Savas, T.A., S.N. Shah, M.L. Schattenburg, J.M. Carter, and H.I. Smith. "Achromatic Interferometric Lithography for 100-nm-period Gratings and Grids."
- Smith, H.I. "Maskless X-ray Projection Pattern Generator."
- Yang, I.Y., D.A. Antoniadis, and H.I. Smith. "Fabrication of Back-gated CMOS Devices Using Mixed and Matched Optical and X-ray Lithographies."
- International Conference on Intersubband Transitions in Quantum Wells: Physics and Applications*, Kibbutz Ginosar, Israel, October 1995.
- Hu, Q., J. Smet, B. Xu, and I. Lyubomirsky. "Far-infrared (THz) Lasers and Parametric Oscillators Using Coupled Double Quantum-well Structures."
- International Conference on Superlattices Microstructures and Microdevices*, Eighth, Cincinnati, Ohio, August 20-25, 1995.
- Sanders, G.D., C.J. Stanton, C.-K. Sun, B. Golubovic, and J.G. Fujimoto. "Theory of Carriers Gain Dynamics in InGaAs/GaAs Strained-layer Single-quantum-well Lasers."

International Congress of Phonetic Sciences, 13th, Stockholm, Sweden, August 13-19, 1995.

Dilley, L.C., and S. Shattuck-Hufnagel. "Variability in Glottalization of Word Onset Vowels in American English."

Hanson, H.M., and K.N. Stevens. "Sub-glottal Resonances in Female Speakers and Their Effect on Vowel Spectra."

Perkell, J., J. Manzella, J. Wozniak, M. Matthies, H. Lane, M. Svirsky, P. Guiod, L. Delhorne, P. Short, M. MacCollin, and C. Mitchell. "Changes in Speech Production Following Hearing Loss Due to Bilateral Acoustic Neuromas."

Wilhelms-Tricarico, R., and J.S. Perkell. "Towards a Physiological Model of Speech Production."

International Congress on Cochlear Implant, Third, Paris, France, April 27-29, 1995.

Svirsky, M.A. "Vowel Perception by Users of the Compressed Analog Stimulation Strategy: A Mathematical Model Including Temporal and Place-of-Stimulation Cues."

International Geoscience and Remote Sensing Symposium, Florence, Italy, July 10-14, 1995.

Schwartz, M.J., J.W. Barrett, P.W. Fieguth, P.W. Rosenkranz, M.S. Spina, and D.H. Staelin. "Observations of Thermal and Precipitation Structure in a Tropical Cyclone by Means of Passive Microwave Imagery near 118 GHz."

International HCIS Conference, Chicago, Illinois, August 1995.

Sanders, G.D., C.-K. Sun, B. Golubovic, J.G. Fujimoto, and C.J. Stanton. "Hot Carrier Effects in Femtosecond Gain Dynamics of InGaAs/AlGaAs Quantum Well Lasers."

International Semiconductor Device Research Symposium, Charlottesville, Virginia, December 5-8, 1995.

Rahman, A., G. de Lange, and Q. Hu. "Micro-machined Room-Temperature Microbolometers for Millimeter-Wave Detection."

International Sherwood Fusion Theory Conference, Incline Village, Nevada, April 3-5, 1995.

Bombarda, F., B. Coppi, W. Daughton, L. Sugiyama, M. Greenwald, A. Hubbard, J. Irby, C. Fiore, J. Rice, S. Wolfe, and B. LaBombard. "The Ignitor Experiment and Rel-

evance of the Alcator C-Mod Confinement Results."

Coppi, B., and L.E. Sugiyama. "Collisionless Magnetic Reconnection in Well-Confined Plasmas."

Coppi, B., P. Detragiache, and S. Niglinolo. "The Issue of Internal Modes in Ignition Experiments."

Daughton, W., B. Coppi, L.E. M. Greenwald, F. Bombarda, and Y. Takase. "Transport Simulations of the Alcator C-Mod Plasmas."

Gatto, R., D. Hua, and S. Migliuolo. "Analytical and Numerical Solutions of the Tearing Modes Linear Stability Equation."

Migliuolo, S., J.P. Friedberg, J. Kesner, and J.J. Ramos. "Ideal MMD Analysis of TFTR Discharges."

Penn, G., B. Coppi, and W. Daughton. "Transport Barrier in Very High Temperature Plasmas."

Ram, A.K., A. Bers, S.D. Schultz, and V. Fuchs. "Interaction of Mode-Converted Ion-Bernstein Waves with Electrons in Tokamaks."

Riconda, C., B. Coppi, and G. Penn. "Emission Above the Ion Cyclotron Frequency in a Non-homogeneous Magnetic Field."

Schultz, S.D., A. Bers, and A.K. Ram. "RF Wave Effects on the Neoclassical Electron Distribution Function in Tokamaks."

Sugiyama, L.E., and W. Park. "The Two Fluid Model and Stabilization of the $m=1$, $n=1$ Mode in a Tokamak."

Tajima, T., and B. Coppi. "Considerations on Plasma Transport Barriers."

International Symposium on Low Power Design, Dana Point, California, April 24-26, 1995.

Monteiro, J., and Devadas, S. "Techniques for the Power Estimation of Sequential Logic Circuits under User-Specified Input Sequences and Programs."

International Symposium on Retrieval of Bio- and Geophysical Parameters from SAR Data for Land Applications, Toulouse, France, October 10-13, 1995.

van Zyl, J., C. Dobson, J. Dozier, P. Dubois, D. Evans, J.A. Kong, T. Le Toan, J. Melack, E. Rignot, S. Saatchi, J.C. Shi, and F.T. Ulaby. "Preliminary Science Results from the SIR-C/X-SAR Mission."

- Hsu, C.C., L. Wang, J.A. Kong, J.C. Souyris, and T. Le Toan. "Theoretical Modeling for Microwave Remote Sensing of Forest."
- Le Toan, T., F. Ribbes, N. Floury, L. Wang, K.H. Ding, C.C. Hsu, and J.A. Kong. "On the Retrieval of Rice Crop Parameters from SAR Data."
- Souyris, J.C., T. Le Toan, C.C. Hsu, and J.A. Kong. "Inversion of Forest Biomass Using SIR-C/X-SAR Data."
- Wang, L., C.C. Hsu, J.A. Kong, J.C. Souyris, and T. Le Toan. "Inversion of Forest Biomass Using Neural Networks."
- International Symposium on Space THz Technology*, Sixth, California Institute of Technology, Pasadena, California, March 21-23, 1995.
- de Lange, G., B.R. Jacobson, A. Rahman, and Q. Hu. "Micromachines Millimeter Wave SIS-mixers."
- International Symposium: Auditory Physiology, Cochleopathies and Cochlear Implants*, Montevideo, Uruguay, May 2-5, 1995.
- Svirsky, M.A. "Signal Processing for Cochlear Implants."
- IEEE International Conference on Acoustics, Speech, and Signal Processing*, Detroit, Michigan, May 8-12, 1995.
- Cheung, S., and J.S. Lim. "Incorporation of Biorthogonality into Lapped Transforms for Audio Compression."
- Isabelle, S.H., and G.W. Wornell. "Statistical Properties of One-Dimensional Chaotic Signals."
- IEEE International Conference on Image Processing*, October 1995.
- Apostolopoulos, J.G., and J.S. Lim. "Representing Arbitrarily-shaped Regions—A Case Study in Overcomplete Representations."
- IEEE International Symposium on Computer Vision*, Coral Gables, Florida, November 21-23, 1995.
- Davis, C.Q., Z.Z. Karu, and D.M. Freeman. "Equivalence of Subpixel Motion Estimators Based on Optical Flow and Block Matching."
- IEEE International Symposium on Information Theory*, Whistler, British Columbia, Canada, September 18-22, 1995.
- Wornell, G.W. "Efficient Multiuser Communication in the Presence of Fading."
- IEEE Topical Meeting on Electrical Performance of Electronic Packaging*, Fourth, Portland, Oregon, October 2-4, 1995.
- Kamon, M., B. Krauter, J. Phillips, L.T. Pileggi, and J. White. "Two Optimizations to Accelerated Method-of-Moments Algorithms for Signal Integrity Analysis of Complicated 3-D Packages."
- IEEE Workshop on Information theory, Multiple Access and Queuing*, St. Louis, Missouri, April 19-21, 1995.
- Wornell, G. "A New Class of CDMA Systems for Fading Channels."
- IEEE Workshop on Nonlinear Signal and Image Processing*, Neos, Marmaras, Halkidiki, Greece, June 20-22, 1995.
- Lam, W.M., and G.W. Wornell. "Multiresolution Representations and Algorithms for Fractal Point Processes."
- Singer, A. "A New Circuit for Communication Using Solitons."
- IEEE/RSJ International Conference on Intelligent Robots and Systems*, Pittsburgh, Pennsylvania, August 5-9, 1995.
- Zilles, C.B., and J.K. Salisbury. "A Constraint-based God-object Method for Haptic Display."
- Joint Statistical Society Meeting*, Orlando, Florida, August 12-17, 1995.
- Koita, R., M. Rawizza, and D.H. Staelin. "Sequential Block Design Strategy for Two-Level Factorial Experiments."
- Mode Conversion and Current Drive Meeting*, Louisville, Kentucky, November 5, 1995.
- Ram, A.K., and A. Bers. "Propagation and Damping of Mode-Converted Ion-Bernstein Waves."
- Saoutic, B., A. Becoulet, A.K. Ram, and A. Bers. "Mode Conversion Heating—Tore Supra Experiments—Theory and Computations."
- Modeling Sensorineural Hearing Loss Meeting*, Boystown National Research Hospital, Omaha, Nebraska, June 10-11, 1995.
- Duchnowski, P., and P.M. Zurek. "Villchur Revisited: Another Look at Age Simulation of Recruiting Hearing Loss."

Appendix A. RLE Publications

MHD Workshop on the Beta Limit in Long Pulse Discharges, La Jolla, California, September 11-14, 1995.

Sugiyama, L.E. "Two Fluid Studies of Tokamak Plasmas."

MHD Workshop on the Effects of Reversed Shear on the Beta Limit, Princeton, New Jersey, December 14-15, 1995.

National Association of Broadcasters Convention, Las Vegas, Nevada, April 9-13, 1995.

Lim, J.S. "System Overview—Advanced TV Technology."

National Center for Integrated Photonics Workshop, Santa Monica, California, February 2-3, 1995.

Darwish, A.M., Lenz, G., Ippen, E.P. "Frequency Conversion in Passive InGaAsP/INP Waveguides."

Haus, H.A. "Channel Dropping Filters and Progress in Their Fabrication."

Neural Prosthesis Workshop, 26th, Bethesda, Maryland, October 18-20, 1995.

Eddington, D.K., and J. Tierney. "Compression Technique for Cochlear Implants."

NATO Advanced Research Workshop on Future Trends in Microelectronics, Ile de Bendor, France, July 1995.

Hu, Q. "High-frequency (f-THz) Studies of Quantum-effect Devices."

Optical Society of America Meeting, Annual, Portland, Oregon, September 9-13, 1995.

Ippen, E.P. "Ultrafast Science and Technology: How Fast? Which Way?"

Particle Accelerator Conference, Dallas, Texas, May 1-5, 1995.

Catravas, P., R. Stoner, J. Blastos, D. Sisson, I. Mastovsky, G. Bekefi, X.J. Wang, and A. Fisher. "MIT Microwiggler for Free Electron Laser Applications."

Volfbeyn, P., I. Mastovsky, G. Bekefi, I. Wilson, and W. Wuensch. "Experimental Studies of a CERN-CLIC 32.98 GHz High Gradient RF Accelerating Structure Driven by the MIT Free Electron Laser Amplifier."

Progress in Electromagnetics Research Symposium (PIERS), Seattle, Washington, July 24-28, 1995.

Chou, M., and J. White. "Transient Simulations of Three-dimensional Integrated Circuit Interconnect Using a Mixed Surface-Volume Approach."

Ding, K.H., S.E. Shih, Y.E. Yang, and J.A. Kong. "Scattering and Absorption of Electromagnetic Radiation by Bicontinuous Random Media."

Gung, T.J., Y.E. Yang, C.C. Hsu, J.A. Kong, C. Kohler, T. Nguyen, and H. Nguyen. "MMW Radar Range Profile Simulation of Isolated Trees with Radiative Transfer Theory."

Hsu, C.C., J.A. Kong, J.C. Souyris, and T. LeToan. "Application of Radiative Transfer Modeling to the Polarimetric Backscattering of Forest."

Johnson, J.T., J.A. Kong, R.T. Shin, and L. Tsang. "Monte Carlo Studies of Ocean Surface Scattering and Thermal Emission."

Li, K., J.T. Johnson, J.J. Akerson, R.T. Shin, and J.A. Kong. "Theoretical and Numerical Analysis of Berenger's PML."

Manolatou, C., J.T. Johnson, J.A. Kong, and R.T. Shin. "Mixing Laws for Helix Loaded Composite Media B."

Nghiem, S.V., R. Kwok, S.H. Yueh, J.A. Kong, C.C. Hsu, and K.H. Ding. "Variations in Polarimetric Backscattering of Saline Ice Grown Under Diurnal Thermal Cycling Condition."

Phillips, J.R., and J.K. White. "Precorrected-FFT Methods for Electromagnetic Analysis of Complex 3-D Interconnect and Packages."

Shih, S.E., K.H. Ding, A.K. Jordan, C.C. Hsu, R.T. Shin, and J.A. Kong. "Electromagnetic Scattering Inversion Using Bistatic Data."

Shih, S.E., K.H. Ding, S.V. Nghiem, C.C. Hsu, R.T. Shin, J.A. Kong, and A.K. Jordan. "Polarimetric Backscattering Signature of Laboratory Grown Saline Ice."

Shih, S.E., E. Yang, K.H. Ding, J.A. Kong, R.E. Davis, and K. O'Neill. "Discrete Scatter Modeling of Electromagnetic Scattering from Snow."

Silveira, L. M., M. Kamon, and J. White. "Direct Computation of Reduced-Order Models for Circuit Simulation of 3-D Interconnect Structures."

Souyris, J.C., T. Le Toan, Y. Zhang, C.C. Hsu, and J.A. Kong. "Inversion of Biomass with Polarimetric Data from SIR-C/X-SAR."

- Tankuranun, P., K.H. Ding, C.F. Lee, R.T. Shin, and J.A. Kong. "Monte Carlo Simulation of Electromagnetic Wave Scattering by Randomly Buried Particles."
- Wang, L., J.T. Johnson, C.C. Hsu, J.A. Kong, J.C. Souyris, and T. Le Toan. "Application of Neural Networks to the Inversion of Geophysical Parameters."
- Wang, L., K.H. Ding, C.C. Hsu, Y.E. Yang, and J.A. Kong. "Electromagnetic Scattering Model for Vegetation Based on L-Systems."
- Yan, J., Y.E. Yang, and J.A. Kong. "Monte Carlo Technique for Random Rough Surface Scattering at Low Grazing Incidence Angles."
- Yeang, C.P., Y.E. Yang, Y. Zhang, and J.A. Kong. "Analysis of Intermodulation Interference to Instrument Landing System."
- Zhang, Y., Y.E. Yang, C.P. Yeang, and J.A. Kong. "Simulation of RF Interference Effect on Aircraft Automatic Landing System."
- Psychoacoustics, Speech, and Hearing Aid Symposium*, Bad Zwischenahn, Germany, August 31-September 5, 1995.
- Zurek, P.M., J.E. Greenberg, and W.M. Rabinowitz. "Prospects and Limitations of Microphone-Array Hearing Aids."
- Semiconductor Research Conference at Stanford*, Palo Alto, California, February 7-9, 1995.
- Chou, M. "SRC Review."
- Seminar at Washington University*, St. Louis, Missouri, May 25, 1995.
- Shapiro, J. "Laser Radar System Theory."
- Seventh International Conference on II-VI Compounds and Devices*, Edinburgh, Scotland, August 13-18, 1995.
- Ho, E., G.S. Petrich, and L.A. Kolodziejski. "Comparison of Hydrogen Passivation of ZnSe:N Using Gas Source and Conventional Molecular Beam Epitaxy."
- Special Seminar at University of Southern California Department of Aerospace Engineering*, Los Angeles, California, June 15, 1995.
- Schattenburg, M.L. "X-ray and XUV Transmission Gratings."
- SPIE International Society for Optical Engineering Conference*, San Jose, California, February 5-10, 1995.
- Birngruber, R., M.R. Hee, S.A. Boppart, J.G. Fujimoto, E.A. Swanson, C.A. Toth, C.D. DiCarlo, C.P. Cain, G.D. Noojin, and W.P. Roach. "*In vivo* Imaging Development Linear and Nonlinear Retinal Laser Effects Using Optical Coherence Tomography Correlation with Histopathological Finding."
- Brothers, L.R., and N.C. Wong. "Optical Frequency Comb Generation for Terahertz Difference-frequency Measurements."
- CiCarlo, C.D., S.A. Boppart, M.R. Hee, J.G. Fujimoto, D.A. Gagliano, E.A. Swanson, A.B. Cox, R.E. Amnotte, and W.P. Roach. "New Noninvasive Technique for Cataract Evaluation in the Rhesus Monkey."
- Hee, M.R., J.A. Izatt, S.A. Boppart, J.G. Fujimoto, E.A. Swanson, C.P. Lin, J.S. Schuman, C. Wong, and C.A. Puliafito. "Examination of the Retina With Optical Coherence Tomography."
- Lee, D., and N.C. Wong. "Tuning Characteristics of a CW Dual-Cavity KTP Optical Parametric Oscillator."
- Tearney, G.J., M.R. Hee, J.A. Izatt, B.E. Bouma, J.G. Fujimoto, M.B. Brezinski, J.F. Southern, R.R. Anderson, and E.A. Swanson. "Optical Coherence Tomography in Multiply Scattering Tissue."
- Wong, N.C. "New Applications of Optical Parametric Devices."
- SPIE/Advanced Signal Processing Algorithms*, San Diego, California, July 10-12, 1995.
- Halberstadt, A.K. "Application of Frequency-domain Polyphase Filtering to Quadrature Sampling."
- Winograd, J.M., and S.H. Nawab. "Mixed-radix Approach to Incremental DFT Refinement."
- Symposium on Combined Optical-Microwave Earth and Atmospheric Sensing*, Atlanta, Georgia, April 2-4, 1995.
- Staelin, D.H., and Kerekes, John F. "Combined Microwave and Optical Remote Sensing Techniques: A Review."
- Symposium on Luteractive 3D Graphics*, Monterey, California, April 9-12, 1995.
- Drucker, S., and D. Zeltzer. "CAMROID: A System for Implementing Intelligent Camera Control."
- Technical Conference on Nonlinear Dynamics*, Mystic, Connecticut, July 1995.

Oppenheim, A.V., K.M. Cuomo, R.J. Barron, and A.E. Freedman. "Channel Equalization for Communication with Chaotic Signals."

Topical Conference on Radio Frequency Power in Plasmas, Eleventh, Palm Springs, California, May 15-19, 1995.

Ram, A.K. "Heating and Current Drive by Mode-Converted Ion-Bernstein Waves."

Schultz, S.D., A.Bers, and A.K. Ram. "RF Wave Effects on the Neoclassical Electron Distribution Function in Tokamaks."

Trieste Conference on Ultrafast Processes in Spectroscopy, Trieste, Italy, October 30-November 3, 1995.

Fujimoto, J.G., G. Tearney, B. Bouma, S. Boppart, M. Hee, E.A. Swanson, C.A. Puliafito, and J. Schuman. "Biomedical Imaging and Optical Biopsy Using Optical Coherence Tomography."

TCAD Symposium. Hierarchical Technology CAD—Process, Device, and Circuits, Palo Alto, California, August 10, 1995.

McIlrath, M., and D. Boning. "Process Repository."

Tso, K., M. McIlrath, and D. Boning. "Fab Facilities Database."

Virtual Reality World Meeting, Stuttgart, Germany, February 20-26, 1995.

Zeltzer, D. "Officer of the Deck: A Virtual Environment Training Application."

Visual Communications and Image Processing Conference, Taipei, Taiwan, May 23-26, 1995.

Apostolopoulos, J.G., and J.S. Lim. "Coding of Arbitrarily-Shaped Regions."

A.1.2 Published Meeting Papers

Aggarwal, R.J., K.V. Shenoy, and C.G. Fonstad, Jr. "A Technology for Monolithic Integration of High-indium-fraction Resonant-tunneling Diodes with Commercial MESFET VLSI Electronics." *Proceedings of the Seventh International Conference on Indium Phosphide and Related Materials*, Sapporo, Japan, May 9-13, 1995.

Babzien, M., I. Ben-Zvi, P. Catravas, J. Fang, A. Fisher, W. Graves et al. "Optical Diagnostics for the ATF Microundulator FEL." *Proceedings of*

the 17th International Free Electron Laser Conference, New York, 1995.

Baggeroer, A.B., and H. Schmidt. "Cramer-Rao Bounds for Matched Field Tomography and Ocean Acoustic Tomography." *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Detroit, Michigan, May 8-12, 1995.

Beauregard, G.L., M.A. Srinivasan, and N.I. Durlach. "Manual Resolution of Viscosity and Mass." *Proceedings of the ASME Dynamic Systems and Control Division*.

Buck, J.R., J.C. Preisig, M. Johnson, and J. Catipovic. "Monochromatic Single-Mode Excitation in Shallow Water Using Feedback Control." *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Detroit, Michigan, May 8-12, 1995.

Cai, X., K. Nabors, and J. White. "Efficient Galerkin Techniques for Multipole-Accelerated Capacitance Extraction of 3-D Structures with Multiple Dielectrics." *Proceedings of the Chapel Hill Conference on Advanced Research in VLSI*, Chapel Hill, North Carolina, March 1995.

Catravas, P., R. Stoner, and G. Bekefi. "Characteristics of the MIT Microwiggler for Free Electron Laser Applications." *Proceedings of the 17th International Free Electron Laser Conference*, New York, 1995.

Chen, J., H. Haus, S. Fan, and J.D. Joannopoulos. "Optical Filters from PBG Air-Bridges." *Proceedings of the European Conference on International Optics*, Delft, The Netherlands, 1995.

Chen, J.C., H.A. Haus, S. Fan, and J.D. Joannopoulos. "Optical Filters from Photonic Band Gap Air Bridges." *Proceedings of the Photonics Society of the Chinese-Americans Annual Meeting*, Baltimore, Maryland.

Chou, M., M. Kamon, K. Nabors, J. Phillips, and J. White. "Extraction Techniques for Signal Integrity Analysis of 3-D Interconnect." *Proceedings of the Custom Integrated Circuit Conference*, May 1995.

Chou, M., T. Korsmeyer, and J. White. "Transient Simulations of Three-dimensional Integrated Circuit Interconnect Using a Mixed Surface-Volume Approach." *Proceedings of the 32nd Design Automation Conference*, San Francisco, California, June 1995.

- Courtney, M., H. Jiao, N. Spellmeyer, and D. Kleppner. "Quantum Chaos and Rydberg Atoms in Strong Fields." *Proceedings of the Drexel Conference*.
- Cuomo, K.M. "Systematic Synthesis Procedures for High-Dimensional Chaotic Systems." *Proceedings of ISCAS Conference*, April 1995.
- Dandekar, K., and M.A. Srinivasan. "A 3-dimensional Finite Element Model of the Monkey Fingertip for Predicting Responses of Slowly Adapting Mechanoreceptors." *Proceedings of the 1995 Bioengineering Conference*. Eds. R.M. Hochmuth, N.A. Langrana, and M.S. Hefzy.
- del Alamo, J.A., C.C. Eugster, Q. Hu, M.R. Melloch, and M.J. Rooks. "Electron Waveguide Devices." *Proceedings of the International Conference on Superlattices, Microstructures and Microdevices*, Eighth, Cincinnati, Ohio, August 20-25, 1995.
- deLange, G., B.R. Jacobson, and Q. Hu. "A Low-Noise Micromachined Millimeter-Wave Heterodyne Mixer with NB Superconducting Tunnel Junctions." *Proceedings of the Workshop on Millimetre Waves Technology and Applications*, Noordwijk, The Netherlands, December 5-7, 1995.
- deLange, G., B.R. Jacobson, and Q. Hu. "A Low-noise Micromachined Millimeter-wave Heterodyne Mixer with Nb Superconducting Tunnel Junctions." *Proceedings of the European Space Agency Workshop on Millimeter Waves Technology and Applications*, Noordwijk, The Netherlands, December 1995.
- Devadas, S., and S. Malik. "A Survey of Optimization Techniques Targeting Low Power VLSI Circuits." *Proceedings of the 32nd Design Automation Conference*, San Francisco, California, June 1995.
- Gulati, R.J., and M.A. Srinivasan. "Human Fingerpad Under Indentation I: Static and Dynamic Force Response." *Proceedings of the 1995 Bioengineering Conference*. Eds. R.M. Hochmuth, N.A. Langrana, and M.S. Hefzy.
- Hall, K.L., J.D. Moores, K.A. Rauschenback, W.S. Wong, E.P. Ippen, and H.A. Haus. "All-Optical Storage of a 1.25 kb Packet at 10 Gb/s." In *Conference on Lasers and Electro-Optics. OSA Technical Digest Series*, paper CPD 16. Washington, DC: Optical Society of America, 1995.
- Joannopoulos, J.D. "An Introduction to Photonic Crystals." *Proceedings of NATO ASI*, Crete, 1995.
- Joannopoulos, J.D. "The Almost-Magical World of Photonic Crystals." *Proceedings of the Seventh Brazilian Workshop on Semiconductor Physics*, Rio de Janeiro, Brazil, 1995.
- Karason, S.P., and M.A. Srinivasan. "Passive Human Grasp Control of an Active Instrumented Object." *Proceedings of the ASME Dynamic Systems and Control Division*.
- Koita, R., D.H. Staelin, and M. Rawizza. "Sequential Block Design Strategy for Two-Level Factorial Experiments." *Proceedings of the Section on Quality and Productivity, American Statistical Association*.
- Lashmore-Davies, C.N., V. Fuchs, and A.K. Ram. "Strong Electron Dissipation by a Mode Converted Ion Hybrid (Bernstein) Wave." *Proceedings of the 11th Topical Conference on Radio Frequency Power in Plasmas*, Palm Springs, California, May 17-19, 1995.
- Liao, S., S. Devadas, and K. Keutzer. "Code Density Optimization for Embedded DSP Processors Using Data Compression Techniques." *Proceedings of the Chapel Hill Conference on Advanced Research in VLSI*, Chapel Hill, North Carolina, March 1995.
- Liao, S., S. Devadas, K. Keutzer, and S. Tjiang. "Instruction Selection Using Binate Covering for Code Size Optimization." *Proceedings of the International Conference on Computer-Aided Design*, San Jose, California, November 1995.
- Liao, S., S. Devadas, K. Keutzer, S. Tjiang, and A. Wang. "Storage Assignment to Decrease Code Size." *Proceedings of the SIGPLAN Programming Language Design and Implementation Symposium*, Princeton, New Jersey, June 1995.
- Liao, S., S. Devadas, K. Keutzer, S. Tjiang, and A. Wang. "Code Optimization Techniques in Embedded DSP Microprocessors." *Proceedings of the 32nd Design Automation Conference*, San Francisco, California, June 1995.
- Liao, S., S. Devadas, K. Keutzer, S. Tjiang, and A. Wang. "Storage Assignment to Decrease Code Size." *Proceedings of the SIGPLAN Programming Language Design and Implementation Symposium*, Princeton, New Jersey, June 1995.

Appendix A. RLE Publications

- Liu, S.A. "The Effect of Vowel Reduction on Landmark Detection." *Proceedings of the International Congress of Phonetic Sciences*, 13th, Stockholm, Sweden, August 13-19, 1995.
- Ludwig, J.T., S.H. Nawab, and A. Chandrakasan. "Low Power Filtering Using Approximate Processing for DSP Applications." *Proceedings of the Custom Integrated Circuit Conference*, May 1995.
- Lutwak, R., J. Holley, J. DeVries, and D. Kleppner. "Millimeter-Wave Measurement of the Rydberg Frequency." *Proceedings of the Fifth Symposium on Frequency Standards and Metrology*, Woods Hole, Massachusetts, October 15-19, 1995.
- Lyubomirsky, I., B. Xu, and Q. Hu. "THz Parametric Oscillators Using Coupled Double Quantum Wells." *Proceedings of the International Semiconductor Device Research Symposium*, Charlottesville, Virginia, December 5-8, 1995.
- Manuel, S.Y., and K.N. Stevens. "Formant Transitions: Teasing Apart Consonant and Vowel Contributions." *Proceedings of the International Congress of Phonetic Sciences*, 13th, Stockholm, Sweden, August 13-19, 1995.
- Monteiro, J., and S. Devadas. "Techniques for the Power Estimation Sequential Logic Circuits Under User-Specified Input Sequences and Programs." *Proceedings of the International Symposium on Low Power Design*, Laguna, California, April 23-26, 1995.
- Monteiro, J., J. Rinderknecht, S. Devadas, and A. Ghosh. "Optimization of Combinational and Sequential Logic Circuits for Low Power Using Precomputation." *Proceedings of the 1995 Chapel Hill Conference on Advanced Research in VLSI*, Chapel Hill, North Carolina, March 1995.
- Nawab, S.H., and J.M. Winograd. "Approximate Signal Processing Using Incremental Refinement and Deadline-Based Algorithms." *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Detroit, Michigan, May 8-12, 1995.
- Peng, L.H., and C.G. Fonstad, Jr. "Intersubband Transitions in Conduction Band Quantum Wells: The Role of Energy Band Gaps and Band Offsets." *Proceedings of the Seventh International Conference on Indium Phosphide and Related Materials*, Sapporo, Japan, May 9-13, 1995.
- Poort, K.L. "Stop Consonant Production: An Articulation and Acoustic Study." *Proceedings of the International Congress of Phonetic Sciences*, 13th, Stockholm, Sweden, August 13-19, 1995.
- Ram, A.K. "Heating and Current Drive by Mode-Converted Ion-Bernstein Waves." *Proceedings of the 11th Topical Conference on Radio Frequency Power in Plasmas*, Palm Springs, California, May 17-19, 1995.
- Ram, A.K., A. Bers, S.D. Schultz, and V. Fuchs. "Interaction of Mode-Converted Ion-Bernstein Waves with Electrons in Tokamaks." *Proceedings of the International Sherwood Fusion Conference*, Incline Village, Nevada, April 3-5, 1995.
- Ram, A.K., A. Bers, S.D. Schultz, and V. Fuchs. "RF Wave Effects on the Neoclassical Electron Distribution Function in Tokamaks." *Proceedings of the International Sherwood Fusion Conference*, Incline Village, Nevada, April 3-5, 1995.
- Ram, A.K., A. Bers, S.D. Schultz, V. Fuchs, A. Becoulet, and B. Saoutic. "Mode-Converted Ion-Bernstein Waves in Tokamaks." *Proceedings of the 22nd European Physical Society Conference on Controlled Fusion and Plasma Physics*, Bournemouth, England, July 3-7, 1995.
- Saoutic, B., A. Becoulet, T. Hutter, D. Fraboulet, A.K. Ram, and A. Bers. "Mode Conversion Heating Experiments on Tore Supra." *Proceedings of the 11th Topical Conference on Radio Frequency Power in Plasmas*, Palm Springs, California, May 17-19, 1995.
- Schultz, S.D., A.K. Ram, and A. Bers. "RF Wave Effects on the Neoclassical Electron Distribution Function in Tokamaks." *Proceedings of the 11th Topical Conference on Radio Frequency Power in Plasmas*, Palm Springs, California, May 17-19, 1995.
- Shattuck-Hufnagel, S. "Pitch Accent Patterns in Adjacent-stress vs. Alternating-stress Words in American English." *Proceedings of the International Congress of Phonetic Sciences*, 13th, Stockholm, Sweden, August 13-19, 1995.
- Silveira, L.M., M. Kamon, and J. White. "Efficient Reduced-Order Modeling of Frequency-Dependent Coupling Inductances Associated with 3-D Interconnect Structures." *Proceedings of the European Design and Test Conference*, Paris, France, March 1995.

- Singer, A.C. "Signaling Techniques Using Solitons." *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Detroit, Michigan, May 8-12, 1995.
- Sluijter, A.M.C., S. Shattuck-Hufnagel, K.N. Stevens, and V.J. van Heuven. "Supralaryngeal Resonance and Glottal Pulse Shape as Correlates of Stress and Accent in English." *Proceedings of the International Congress of Phonetic Sciences*, 13th, Stockholm, Sweden, August 13-19, 1995.
- Somerville, M.H., J.A. del Alamo, and W. Hoke. "A New Physical Model for the Kink Effect on InAlAs/InGaAs HEMTs." *Proceedings of the International Electron Devices Meeting*, Washington, DC, December 1995.
- Srinivasan, M.A. "Haptic Interfaces: Hardware, Software, and Human Performance." *Proceedings of the NASA Workshop on Human-computer Interaction and Virtual Environments*, NASA Conference Publication.
- Stevens, K.N. "Applying Phonetic Knowledge to Lexical Access." *Proceedings of the European Conference on Speech Communication and Technology*, Fourth, Madrid, Spain, 1995.
- Telichevesky, R., K.S. Kundert, and J. White. "Efficient Steady-State Analysis Based on Matrix-Free Krylov Subspace Methods." *Proceedings of the 32nd Design Automation Conference*, San Francisco, California, June 1995.
- Verghese, S., N. Zamdmer, E.R. Brown, A. Forster, and Q. Hu. "Correlation of Optical Pulses with a Low-Temperature-Grown GaAs Photoconductor." *Proceedings of the International Semiconductor Device Research Symposium*, Charlottesville, Virginia, December 5-8, 1995.
- Villeneuve, P.R., S. Fan, J.D. Joannopoulos, K.-Y. Lim, J.C. Chen, G.S. Petrich, L.A. Kolodziejski, and R. Reif. "Microcavities in Channel Waveguides." *Proceedings of a NATO Advanced Studies Institute of Photonic Band Gap Materials*, Elounda, Greece, June 1995.
- Wee, S.J., M.O. Polley, and W.F. Schreiber. "A Scalable Source Coder for a Hybrid Transmission HDTV System." *Proceedings of the International Symposium on Multimedia Communications and Video Coding*, Brooklyn, New York, October 1995.
- Wilde, L. "Quantifying Time-varying Spectra of English Fricatives." *Proceedings of the International Congress of Phonetic Sciences*, 13th, Stockholm, Sweden, August 13-19, 1995.
- Wilhelms-Tricarico, R., and J.S. Perkell. "Biomechanical and Physiologically-based Speech Modeling." *Proceedings of the International Congress of Phonetic Sciences*, 13th, Stockholm, Sweden, August 13-19, 1995.
- Winograd, J.M., and S.H. Nawab. "A C++ Software Environment for the Development of Embedded Signal Processing." *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing*, Detroit, Michigan, May 8-12, 1995.
- Wong, N.C., B. Lai, P. Nee, and E. Mason. "Experimental Progress Toward Realizing a 3:1 Optical Frequency Divider." *Proceedings of the Fifth Symposium on Frequency Standards and Metrology*, Woods Hole, Massachusetts, October 15-19, 1995.
- Xu, Y. "The Effect of Emphatic Accent on Contextual Tonal Variation." *Proceedings of the International Congress of Phonetic Sciences*, 13th, Stockholm, Sweden, August 13-19, 1995.

A.2 Journal Articles

A.2.1 Published Journal Articles

- Agam, O., B.L. Altshuler, and A.V. Andreev. "Spectral Statistics: From Disordered to Chaotic Systems." *Phys. Rev. Lett.* 75: 4389 (1995).
- Aggarwal, R.J., and C.G. Fonstad. "High Peak-to-Valley Current Ratio InGaAs/AlAs RTDs on GaAs Using Relaxed InGaAs Buffers." *Electron. Lett.* 31: 75-76 (1995).
- Aggarwal, R.J., and C.G. Fonstad, Jr. "High Peak-to-Valley Current Ratio $\text{In}_{0.22}\text{Ga}_{0.78}\text{As}/\text{AlAs}$ RTDs on GaAs Using Relaxed $\text{In}_x\text{Ga}_{1-x}\text{As}$ Buffers." *Electron. Lett.* 31(1): 75-76 (1995).
- Andreev, A.V., and B.L. Altshuler. "Spectral Statistics Beyond Random Matrix Theory." *Phys. Rev. Lett.* 75: 902-905 (1995).
- Aucoin, R.J., and M.L. Schattenburg. "Optically-Matched Tri-Level Resist Process for Nanostructure Fabrication." *J. Vac. Sci. Technol. B* 13: 3007-3011 (1995).

- Bahl, S.R., J.A. del Alamo, J. Dickmann, and S. Schildberg. "Off-State Breakdown in InAlAs/InGaAs MODFETs." *IEEE Trans. Electr. Dev.* 42: 15-22 (1995).
- Bers, A., S.D. Schultz, and A.K. Ram. "Mode Conversion to Ion-Bernstein Waves of Fast Alfvén Waves with Finite Poloidal Wavenumber in Tokamak Geometries." *Bull. Am. Phys. Soc.* 40: 1705 (1995).
- Berthold, S., E. Zanoni, C. Canali, M. Pavesi, M. Pecchini, M. Manfredi, S.R. Bahl, and J.A. del Alamo. "Impact Ionization and Light Emission in InAlAs/InGaAs Heterostructure Field-Effect Transistors." *IEEE Trans. Electron. Dev.* 42: 752-759 (1995).
- Besing, J.M., C.M. Reed, and N.I. Durlach. "A Comparison of Auditory and Tactual Presentation of a Single-Band Envelope Cue as a Supplement to Speechreading." *Seminars in Hear.* 16(4): 316-327 (1995).
- Boivin, L. "The Sagnac Loop Squeezer at Zero Dispersion with a Response Time for the Kerr Nonlinearity." *Phys. Rev. A* 52(1): 754-766 (1995).
- Boivin, L. "Sagnac Loop Squeezer at Zero Dispersion with a Finite Response Time for Kerr Nonlinearity." *Phys. Rev. A* 52: 754 (1995).
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A.5 Theses

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Appendix A. RLE Publications

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