28. Publications and Reports

28.1 Meeting Papers Presented

10th Conference on Numerical Simulation in Plasma, San Diego, California
January 4–6, 1983

R.H. Berman, Symbolic Computation in Plasma Physics (invited paper)

R.H. Berman, D.J. Tetreault, and T.H. Dupree, Observation of Turbulent Self-binding Fluctuations in Simulation Plasma

National Radio Science Meeting, University of Colorado, Boulder, Colorado
January 5–7, 1983

Abstracts in Proceedings


R.T. Shin and J.A. Kong, Thermal Microwave Emission from a Scattering Medium with Rough Surfaces (p. 171)

161st Meeting, American Astronomical Society, Boston, Massachusetts,
January 9–12, 1983


J.W. Dreher and C.R. Lawrence, Hot Spots in Extragalactic Radio Sources (p. 963)


Winter '83 Meeting on "Optical Techniques for Remote Probing of the Atmosphere," Incline Village, Nevada
January 10–12, 1983

Papers in Technical Digest

Y.Q. Jin and J.A. Kong, Mie Scattering of Electromagnetic Waves by Precipitation (pp. MC2–1 – MC2–4)
Publications and Reports

Topical Meeting on Signal Recovery and Synthesis with Incomplete Information and Partial Constraints, Optical Society of America, Incline Village, Nevada
January 12–14, 1983

Papers in Digest of Technical Papers

A.V. Oppenheim and J.S. Lim, Signal Reconstruction from Partial Fourier Domain Information (pp. ThA12:1–ThA12:4)

T.F. Quatieri, S.H. Nawab, and J.S. Lim, Frequency Sampling of the Short-Time Fourier Transform Magnitude (pp. ThA9:1–ThA9:4)

P.L. Van Hove, J.S. Lim, and A.V. Oppenheim, Signal Reconstruction from Fourier Transform Amplitude (pp. ThA15:1–ThA15:4)

Sixth Midwinter Research Meeting of the Association for Research in Otolaryngology, St. Petersburg, Florida
January 23–27, 1983

Abstracts in Proceedings

J.J. Rosowski and W.T. Peake, From the Ear Canal of the Alligator Lizard: Evidence for Multiple Inner-Ear Sources of Mechanical Non-Linearity (p. 101)

Fifth Topical Conference on RF Plasma Heating, University of Wisconsin, Madison, Wisconsin
February 21–13, 1983

Papers in Proceedings

P.T. Bonoli, R.C. Englade, and M. Porkolab, A Computational Model for Lower-Hybrid Current Drive (pp. 72–75)

V. Fuchs, V. Krapchev, and A. Bers, Stochasticity Induced by Coherent Wavepackets (pp. 156–159)

K. Hizanidis, V. Krapchev, A. Ram, and A. Bers, Relativistic Two-Dimensional Theory of RF Current Drive (pp. 160–163)


A. Ram and A. Bers, Antenna–Plasma Coupling Theory for ICRF Heating (pp. 300–303)

R.L. Watterson, Y. Takase, M. Porkolab, J.J. Schuss, R.E. Slusher, and C.M. Surko, Study of Lower Hybrid Waves in Alcator C Using CO₂ Laser Scattering (pp. 80–83)

Workshop on "New Directions in Phase-Conjugate Nonlinear Optics," Los Alamos, New Mexico
February 22–24, 1983

J. Shapiro, Mysteries and Applications of Two–Photon Coherent States

1983 IEEE Workshop on Automatic Test Program Generation, San Francisco, California
March 15–16, 1983

G. Kramer, Test Generation Algorithms

1983 Sherwood Meeting, Arlington, Virginia
March 21–23, 1983

Abstracts in Proceedings

P.T. Bonoli, L. Sugiyama, and R.C. Englade, Lower Hybrid Heating in the Ignitor Device (p. 3P13)

B. Coppi, F. Pegoraro, and J.J. Ramos, Instability of Fusing Plasmas and Relevant Spin–Depolarization Process (p. 2C2)

G.B. Crew, B. Coppi, J. Martinelli, and J.J. Ramos, Collisionless Internal Kink Modes (p. 1P17)

R. Englade and P. Bonoli, Simulations of the Density, Phase and Toroidal Field Dependence of Lower Hybrid Current Drive (p. 1S1)

V. Fuchs, V. Krapchev, A. Ram, and A. Bers, Scattering and Stochasticity of Electron Interacting with Coherent Wavepackets

D.W. Hewett, V. Krapchev, J.P. Freidberg, and A. Bers, Fokker–Plank Investigations of rf Current Drive (p. 1P10)

K. Hizanidis, V. Krapchev, and A. Bers, Relativistic 2–Dimensional Theory of Lower–Hybrid Current Drive (p. 2Q3)

D. Humphreys and L. Sugiyama, Determination of a Value for the Anomalous Electron Thermal Conductivity (p. 1S26)


A. Ram and A. Bers, Relativistic Evolution of Electromagnetic Instabilities (p. 2Q24)
Publications and Reports

L. Sugiyama, Current and Particle Density Effects on Ignition in the Presence of Sawteeth (p. 2P16)

G. Vlad and B. Coppi, Finding of a "Bremsstrahlung Cortex" in Advanced Fuel Burning Plasmas (p. 1R9)

1983 March Meeting, American Physical Society, Los Angeles, California
March 21–25, 1983


A. Erbil, R. Kortan, M.S. Dresselhaus, and R.J. Birgeneau, Two-Dimensional Phase-Transitions in Bromine Intercalated Graphite (p. 264)


C. Jagannath and D.M. Larsen, Four-Wave Piezospectroscopy of the Ground-State of Donors in Silicon (p. 534)


B.D. Larson, L.J. Yu, and J.D. Litster, Reorientational Behavior of Micelles in a Lyotropic Liquid Crystal via Picosecond Absorption Spectroscopy of Probe Dye Molecules (p. 332)

G. Timp, A.R. Kortan, L. Salamanca-Riba, R.J. Birgeneau, and M.S. Dresselhaus, High Resolution Diffraction Experiments on Graphite Potassium Amalgam (p. 347)

SPIE's Technical Symposium East '83, Arlington, Virginia
April 4–8, 1983

Papers in SPIE


IEEE International Conference on Acoustics, Speech and Signal Processing, Boston, Massachusetts
April 14–16, 1983

Papers in ICASSP '83


C. Esmersoy and J.S. Lim, Subjective Evaluation of a PCM Speech Coding System with Quantization Noise Reduction (paper 24.6, pp. 1137–1140)

D.W. Griffin and J.S. Lim, Signal Estimation from Modified Short-Time Fourier Transform (paper 17.8, pp. 804–807)

J.S. Lim and F.U. Dowla, Improved Maximum Likelihood Method for a Two-Dimensional Spectral Estimation (paper 18B.3, pp. 851–854)

E.E. Milios and A.V. Oppenheim, The Phase-only Version of the LPC Residual in Speech Coding (paper 17.6, pp. 797–799)


S.H. Nawab, T.F. Quatieri, and J.S. Lim, Algorithms for Signal Reconstruction from Short-Time Fourier Transform Magnitude (paper 17.7, pp. 800–803)

H.C. Reeve III and J.S. Lim, Reduction of Blocking Effect in Image Coding (paper 26A.1, pp. 1212–1215)

CANDE Workshop, Mescalera, New Mexico
April 17–22, 1983

L. Seiler and J. Allen, Special Hardware for Design Rule Checking

Department of Electrical Engineering Seminar, University of Maryland, College Park, Maryland
April 18, 1983

R.E. Shefer, Coherent Millimeter Wave Generation at M.I.T. (invited paper)

1983 Spring Meeting, American Physical Society, Baltimore, Maryland
April 18–21, 1983


D. Kleppner, Spin Polarized Hydrogen for Polarized Source and Targets (p. 664)

Nineteenth Regional Meeting, Chicago Linguistic Society, Chicago, Illinois
April 21–22, 1983
Publications and Reports

in A. Chukerman, M. Marks, and J. F. Richardson (Eds.), CLS 19

K.L. Landhal and E.M. Maxwell, The /b/-/w/ Contrast and Considerations of Syllable Duration (pp. 234-243)

Electrochemical Society Symposium on III-V Opto-Electronics Epitaxy and Device-Related Processes, San Francisco, California
May 8-13, 1983

C.J. Keavney, H.A. Atwater, H.I. Smith, and M.W. Geis, Zone Melting Recrystallization of InSb on Oxidized Silicon Wafers

105th Meeting, Acoustical Society of America, Cincinnati, Ohio
May 9-13, 1983


H.S. Colburn, P.M. Zurek, and N.I. Durlach, Directional Hearing in Relation to Hearing Impairments and Aids (p. S17)

C.L. Farrar, C.M. Reed, N.I. Durlach, L.D. Braida, and P.M. Zurek, Spectral–Shape Discrimination of Synthetic Plosive Bursts (p. S93)

M. Furst, W.M. Rabinowitz, and P. Zurek, Combination–Tone Cancellation Phase: Comparison of Psychophysical and Ear–Canal Measurements (p. S78)

R. Goldhor, The Representation of Speech Signals in a Model of the Peripheral Auditory System (p. S4)


H. Kawasaki, Fundamental Frequency Perturbation Caused by Voiced and Voiceless Stops in Japanese (p. S88)

D. Klatt, Timing Rules in Klattalk: Implications for Models of Speech Production (p. S66)

E.M. Maxwell and K.L. Landahl, The b/w Contrast and Considerations of Syllable Duration (p. S53)

P.J. Price and H.J. Simon, Age as a Factor in the Perception of Temporal Information in Speech (p. S103)


P.M. Zurek, Conductive Hearing Loss and Interaural Discrimination Under Headphones (p. S77)

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P.M. Zurek, N.I. Durlach, H.S. Colburn, and K.J. Gabriel, Masker Bandwidth and the MLD (p. S77)

49th Statistical Mechanics Meeting, Rutgers University, New Brunswick, New Jersey
May 12–13, 1983

R.E. Goldstein, Molecular Structure and Hydrogen Bonding at Lower Critical Solution Points

Conference on Lasers and Electro-Optics — CLEO ’83, Baltimore, Maryland
May 17–20, 1983


May 23–25, 1983

Papers in Proceedings


1983 IEEE International Conference on Plasma Science, San Diego, California
May 23–25, 1983

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D.D. Hinshelwood, The Effect of Cathode Surface Impurities on Gap Closure (p. 125)


R.E. Shefer, B.D. Nevins, and G. Bekefi, Experimental Results from a Rippled Field Magnetron (Cross-Field FEL) (p. 102)


M. Shoucri, V. Krapchev, and A. Bers, A SADI Numerical Scheme for the Solution of the 2-D Fokker–Planck Equation (p. 67)
S. Texter, J. Rice, B. Lloyd, M. Porkolab, and J. Schuss, Measurement of X-ray Spectra During Lower Hybrid Current Drive Experiments on the Alcator C Tokamak (p. 97)

Y.Z. Yin and G. Bekefi, Dispersion Characteristics of an FEL with a Linearly Polarized Wiggler and Axial Guide Field (p. 28)

U.R.S.I. National Radio Science Meeting, University of Houston, Houston, Texas
May 23–26, 1983

Abstracts in Proceedings

L. Tsang and J.A. Kong, Scattering of Electromagnetic Waves from a Half-Space of Densely Distributed Dielectric Scatterers (p. 133)

IEEE Computer Society Trends and Applications Conference, Gaithersburg, Maryland
May 25–26, 1983

Papers in Proceedings

V.W. Zue and D.P. Huttenlocher, Computer Recognition of Isolated Words from Large Vocabularies (pp. 121–125)

IEEE Mini-Course "RF Heating and Current Drive in Magnetic Fusion Plasmas," San Diego, California
May 25–27, 1983

A. Bers, Interactions of Electromagnetic Waves with Magnetized Plasmas

1983 International Symposium on Electron, Ion, and Photon Beams, Los Angeles, California
May 31 – June 3, 1983

Papers in Proceedings

E.H. Anderson and H.I. Smith, TEM Analysis of Vertical-Slab Cross Section of Submicrometer Structures

A.M. Hawryluk, H.I. Smith, and D.J. Ehrlich, Deep UV Spatial-Period-Division by Combining Multilayer Mirrors with Diffraction Gratings

H.J. Lezec, E.H. Anderson, and H.I. Smith, An Improved Technique for Resist-Profile Control in Holographic Lithography

M.L. Schattenburg, C.L. Canizares, H.I. Smith, and A.M. Hawryluk, Submicrometer-Period Transmission Diffraction Gratings for X-Ray Astronomy

A.C. Warren, D.A. Antoniadis, J. Melngailis, and H.I. Smith, Submicrometer-Period Channel
Modulation of a MOSFET

Low-Hybrid Group Seminar, Princeton Plasma Physics Laboratory, Princeton, New Jersey
June 1, 1983
S.C. Luckhardt, Partial Confinement Measurements During Low-Hybrid Current Drive (invited paper)

Ninth Conference on Aerospace and Aeronautical Meteorology, Omaha, Nebraska
June 6–9, 1983
Papers in Preprint Volume of Extended Abstracts
D.H. Staelin, Atmospheric Temperature Sounding from Space (pp. 191–193)

Army Snow Meeting Workshop, Boulder, Colorado
June 7–8, 1983
J. Kong, Theoretical Models for Remote Sensing of Earth Terrain

Fifth Rochester Conference on Coherence and Quantum Optics, University of Rochester, Rochester, New York
June 13–15, 1983
Papers in Coherence and Quantum Optics V (Plenum Press)
R.S. Bondurant, M. Maeda, P. Kumar, and J.H. Shapiro, Pump and Loss Effects on Degenerate Four-Wave Mixing Quantum Statistics (pp. 767–774)
R.S. Bondurant and J.H. Shapiro, Squeezed States in Phase-Sensing Interferometers (pp. 629–636)
P. Kumar, R.S. Bondurant, J.H. Shapiro, and M.M. Salour, Quantum Noise Measurements in Degenerate Four-Wave Mixing (pp. 43–50)

Seminar on Electrooptical Engineering, National Chiao Tung University, Taiwan, Republic of China
June 20, 1983
H.A. Haus, Optical Waveguide Structures for Picosecond Signal Processing (invited paper)

June 20–24, 1983
J.J. Ramos, Second Region of Stability of Kink and Ballooning Modes
Publications and Reports

Symposium for Senior Executives "Global Technological Change: A Strategic Assessment," Massachusetts Institute of Technology, Cambridge, Massachusetts
June 21–23, 1983

Papers in Proceedings

J. Allen, New Perspectives in Electronics Technology (pp. 61–85)

VLSI Workshop, Saratoga Spring, New York
June 23–25, 1983


Electronic Materials Conference, Burlington, Vermont
June 23–25, 1983

H.A. Atwater, C.V. Thompson, H.I. Smith, and M.W. Geis, Orientation Filtering by Growth Velocity Competition in Zone-Melting Recrystallization of Si on SiO₂

IOOC '83 – Fourth International Conference on Integrated Optics and Optical Fiber Communication, Tokyo, Japan
June 27–30, 1983

Papers in Technical Digest

H.A. Haus and M. Kuznetsov, Radiation Loss of Coupled Waveguide Structures (pp. 360–361)

R.H. Rediker, T.A. Lind, and F.J. Leonberger, Integrated Optics Wavefront Measurement Sensor (pp. 248–249)

IUTAM–IUPAP Symposium on "Mechanical Behavior of Electromagnetic Solid Continua," Paris, France
July 4–7, 1983


F.R. Morgenthaler, On the Electrodynamics of a Deformable Ferromagnet Undergoing Magnetic Resonance (pp. 287–292)

Symposium: "Process for the Phonetic Coding and Decoding of Speech," Toulouse, France
July 15–16, 1983

Papers in Speech Communication — Special Issue, July 1983

V.W. Zue, The Use of Phonetic Rules in Automatic Speech Recognition (invited paper) (pp. 181–186)

11th International Congress of Acoustics, Paris, France
July 19–27, 1983

Papers in Proceedings
C. Shadle, Turbulence Noise in the Vocal Tract (pp. 171–174)

V.W. Zue, The Use of Phonetic Rules in Automatic Speech Recognition

Tenth International Congress on Phonetic Sciences, Utrecht, The Netherlands
August 1–6, 1983

Papers and Abstracts in Proceedings
J. Allen, Units for Speech Synthesis (pp. 107–111)

C.A. Bickley, Acoustic Evidence for Phonological Development of Vowels in Young Children (p. 624)

C.Y. Espy, Coarticulatory Effects Between /l/ and /r/ Allophones and Adjacent Vowels (p. 467)

S. Hawkins and K.N. Stevens, Perceptual Correlates of the Feature Nasal for Vowels (p. 510)

E. Holmberg, R. Hillman, and J. Perkell, Relationship Among Indirect Measurements of Glottal Resistance and Vocal Efficiency and Derived Glottal Waveform Characteristics for Normal Speakers (p. 445)

D.H. Klatt, The Problem of Variability in Speech Recognition and in Models of Speech Perception (pp. 287–298)

J. Perkell, Individual and Possible Language–Related Differences in Two Aspects of Coarticulation: Time Beginning of Anticipation and the Production of “Troughs” (p. 474)

P.J. Price, Voice Quality and the Glottal Waveform: Analysis and Synthesis (p. 413)

S. Shattuck–Hufnagel, Evidence for a Speech Production Planning Model from Spontaneous and Elicited Speech Errors (p. 792)

V.W. Zue, Proposal for an Isolated–Word Recognition System Based on Phonetic Knowledge and Structural Constraints (pp. 299–305)

Gordon Research Conference on Implantable Auditory Prostheses, Tilton, New Hampshire
August 21–26, 1983

W.M. Rabinowitz, Selection of Speech Intelligibility Test Materials and Artificial Speech Codes for Consideration with Cochlear Implants

American Association for Artificial Intelligence Annual Conference, Washington, D.C.
August 22–26, 1983

D.P. Huttenlocher, Phonotactic and Lexical Constraints in Speech Recognition

1983 IEEE Workshop on Digital Signal Processing, L’Aquila, Italy
September 6–8, 1983

J. Allen, The Impact of Parallelism on Hardware and Software

J. Allen, Software Engineering

A.V. Oppenheim, J.S. Lim, and S.R. Curtis, Signal Reconstruction from Partial Fourier Domain Information

Fifth International Topical Conference on High-Power Electron and Ion-Beam Research and Technology, San Francisco, California
September 12–14, 1983


R.E. Shefer, G. Bekefi, R.D. Estes, C-L. Chang, E. Ott, T.M. Antonsen, and A.T. Drobot, Experimental and Theoretical Results from a Rippled Field Magnetron (Cross-Field FEL)

VII International Conference on Crystal Growth, Stuttgart, Federal Republic of Germany
September 12–16, 1983

C.V. Thompson and H.I. Smith, Silicon-on-Insulator by Surface-Energy-Driven Secondary Recrystallization with Patterning

Symposium on X-Ray Microscopy, Gottingen, Federal Republic of Germany
September 14–16, 1983


IEEE International Symposium on Information Theory, St. Jovite, Quebec, Canada
September 26-30, 1983

Abstracts in Abstracts of Papers

J.H. Shapiro, Near-Optimum Receiver Realizations for Binary Two-Photon Coherent State Signals (p. 52)

1983 IEEE SOS/SOI Technology Workshop, Jackson Hole, Wyoming
October 4-6, 1983

C.V. Thompson and H.I. Smith, Silicon-on-Insulator by Surface-Energy-Driven Secondary Recrystallization in Ultra-Thin Films

Segundo Symposium de Ingenieria Biomedica, Madrid, Spain
October 5-7, 1983

Papers in Proceedings

B. Howland and A. Medina, A Novel Eye Testing Chart

Third Lerchendahl Conference on Systems Science, Technical University of Norway, Trondheim, Norway
October 10-12, 1983

M.A. Jenkins, The Role of Equations in Nial

3rd IEEE ASSP Workshop on Multi-Dimensional Digital Signal Processing, Lake Tahoe, California
October 19-21, 1983

F.U. Dowla and J.S. Lim, Relationship Between Autoregressive Signal Modeling and Maximum Likelihood Method for Spectral Estimation

1983 IEEE International Symposium on Ultrasonics, Atlanta, Georgia
October 31-November 2, 1983

D-P. Chen, A Variational Method for Estimation of the SAW Electromechanical Coupling Coefficient

E.M. Garber and H.A. Haus, Synthesis of High Performance Compact Saw Filters with Nonuniformly Spaced Fingers

N.A. Whitaker, Jr. and H.A. Haus, Backward Wave Effects in Acoustic Scattering Measurements
Publications and Reports

1983 IEEE International Conference on Computer Design/VLSI in Computers, Port Chester, New York
October 31–November 3, 1983

Papers in Proceedings


1983 Meeting, IRIS Specialty Group on Active Systems, Naval Postgraduate School, Monterey, California
November 1–3, 1983

J.H. Shapiro and P.L. Mesite, Performance Analyses for Doppler and Chirped Laser Radars

25th Annual Meeting of the Division of Plasma Physics, American Physical Society, Los Angeles, California
November 7–11, 1983


B. Basu and B. Coppi, Gravity Driven Localized Modes in the Equatorial Ionosphere (p. 1130)


A. Bers, A.K. Ram, and G.E. Francis, Relativistic Stability Analysis of Electromagnetic Waves Propagating Across a Magnetic Field (p. 1158)

G. Bertin and B. Coppi, Bending Waves and Current Disk Model of the Solar Wind (p. 1140)

P.T. Bonoli, R. Englade, and M. Porkolab, Simulation of Lower Hybrid Heating in Alcator C (p. 1163)


B. Coppi, Evidence of Gravity Driven Ballooning-type Modes in the Ionosphere (p. 1161)

B. Coppi, Transport in Plasma with Ohmic and Prevalent Injected Heating (p. 1211)

B. Coppi, Magnetic Reconnection and Velocity Space Instabilities (p. 1210)

B. Coppi, P. Detregiache, J.J. Ramos, and F. Pegoraro, Collective Mode Scattering of Fusion Reaction Products and Spin Depolarization (p. 1240)

B. Coppi and L. Sugiyama, Paths to the Second Stability Region (p. 1210)
P. Detregiache, B. Coppi, S.C. Cowley, R.M. Kulsrud, and E.J. Valeo, Velocity Space Instabilities for Two Component Plasmas (p. 1113)

R. Englade, P.T. Bonoli, and M. Porkolab, Lower Hybrid Current Drive Modeling (p. 1163)


C.L. Fiore, M.J. Greenwald, S.V. Judd, Y. Takase, B. Lloyd, M. Porkolab, and J. Schuss, Results of Neutral Particle Measurements During Lower Hybrid Injection on Alcator C (p. 1163)


A.M. Hamza, B. Coppi, and R. Petrasso, Analysis of Impurity Transport by Impurity Driven Modes (p. 1083)

D.D. Hinshelwood and R.J. Li, The Effects of Cathode Properties on Cathode Turn on in REB Diodes (p. 1146)

K. Hizanidis, D.W. Hewett, K. Rugg, and A. Bers, Steady State RF Current Drive Theory Based Upon the Relativistic Fokker-Planck Equation (p. 1090)

K.D. Jacobs and G. Bekefi, A Free Electron Laser (Ubitron) Experiment (p. 1142)

J. Kesner and B. Lane, Effect of Equilibrium Radial Electric Field on the Trapped Particle Instability in Tandem Mirrors (p. 1132)


V.B. Krapchev, D.W. Hewett, and A. Bers, Steady State Solution of a Two-Dimensional Fokker-Planck Equation with Strong RF Diffusion (p. 1090)

B. Lane, Collisional Effects on Trapped Particle Modes in Tandem Mirrors (p. 1183)


B. Lloyd, M. Porkolab, J.J. Schuss, Y. Takase, S.C. Texter, R. Watterson, P. Bonoli, R. Englade, and Alcator Group, Lower-Hybrid Current Drive and Heating Experiments in Alcator C (p. 1162)

S.C. Luckhardt, K.I. Chen, S.F. Knowlton, M.J. Mayberry, M. Porkolab, A.S. Fisher, and
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R. Rohatgi, Lower-Hybrid Current Drive Experiments on the Versator II Tokamak (p. 1031)


M. Mars, B. Coppi, R. Englade, and P.T. Bonoli, Electron Thermal Energy Transport in Plasma with Auxiliary Heating (p. 1221)


D.S. Pappas, S.C. Texter, R. Gandy, B. Lloyd, and M. Porkolab, Limiter Hard X-Ray Emission Measurements During Lower Hybrid Injected Discharges (p. 1162)

A.K. Ram, M.E. Mauel, V. Krapchev, and A. Bers, Stochastic Motion of Mirror Confined Electrons by a Frequency Modulated Wave (p. 1183)

J.J. Ramos, B. Coppi, P. Detregiache, and F. Pegoraro, Deuteron Spin Depolarization by Resonant Interaction with Anisotropy Driven Plasma Instability (p. 1208)


L. Sugiyama and B. Coppi, Thermal Transport in High Temperature Ohmic Discharge (p. 1220)

Y. Takase, M. Porkolab, J.J. Schuss, R.L. Watterson, C.L. Fiore, R.E. Slusher, and C.M. Surko, Parametric Instability During Alcator C Lower Hybrid Experiments (p. 1163)

S. Texter, B. Lloyd, M. Porkolab, and J. Schuss, Plasma X-Ray Emission in the 20-500 keV Range During Lower Hybrid Current Drive on Alcator (p. 1162)


106th Meeting, Acoustical Society of America, San Diego, California

November 7-11, 1983

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C.L. Farrar, Y. Ito, P.M. Zurek, N.I. Durlach, and C.M. Reed, Detection of Tones in Synthetic Plosive Bursts (p. S71)

K.J. Gabriel, Binaural Interaction in Hearing Impaired Listeners (p, S85)


D.P. Huttenlocher and V.W. Zue, Exploring Phonotactic Lexical Constraints in Word Recognition (p. S15)

H. Kawasaki, An Acoustic Study of Japanese Coronal Fricative Clusters Resulting from Word Devoicing (p. S90)

L.F. Lamel, The Use of Phonotactic Constraints to Determine Word Boundaries (p. S15)

L.S. Larkey and M. Danly, Fundamental Frequency and the Comprehension of Simple and Complex Sentences (p. S67)

E.M. Maxwell, Portuguese Nasalized Vowels and Nasal Consonants: Their Relation to Following Consonants (p. S90)

S. Senef, Pitch and Spectral Estimation of Speech Based on Auditory Synchrony Model (p. S9)


SEMICRO Conference, Rio de Janeiro, Brasil
November 9, 1983

J. Allen, VLSI Education in United States

ASSP Spectrum Estimation Workshop II, Tampa, Florida
November 10-11, 1983

Papers in Proceedings

D. Izaelevitz and J.S. Lim, Spectral Characteristics of the Overdetermined Normal Equation Method for Spectral Estimation (pp. 49-54)
Publications and Reports

Materials Research Society Symposium on "Energy Beam-Solid Interactions and Transient Thermal Processing," Boston, Massachusetts
November 14–17, 1983

Papers in Fan and Johnson (Eds.), Symposium Proceedings (Elsevier Science Publishing Company, New York)

C.C. Wong, C.J. Keavney, H.A. Atwater, C.V. Thompson, and H.I. Smith, Zone Melting Recrystallization of InSb Films on Oxidized Si Wafers

American Speech and Hearing Association Meeting, Cincinnati, Ohio
November 18–21, 1983

Abstracts in ASHA 25:10, October 1983

C.L. Farrar, C.M. Reed, N.I. Durlach, L.D. Braida, and P.M. Zurek, Spectral-Shape Discrimination of Synthetic Plosive Bursts (p. 67)

R.E. Hillman, E. Holmberg, M. Walsh, and J. Perkell, Source Characteristics of Esophageal Phonation (p. 72)

J.D. Koehnke and M.F. Cohen, The Effects of Masker Level on Binaural Masking Patterns (p. 156)

Conference on Fractals in the Physical Sciences, National Bureau of Standards, Gaithersburg, Maryland
November 21–23, 1983

M. Kardar and M. Kaufman, Competing Criticality of Short- and Infinite-Range Interactions on the Cayley Tree: Effective Dimensional Variation

GLOBECOM '83 Global Telecommunications Conference, San Diego, California
November 28 – December 1, 1983

Papers in Conference Record

T.T. Nguyen, J.H. Shapiro, A.K. Wong, and D.J. Epstein, Atmospheric Optical Communications for Local Area Networks (pp. 416–420)

8th International Conference on Infrared and Millimeter Waves, Miami, Florida
December 12–17, 1983

P.A. Wolff, Nonlinear Optical Studies of Picosecond Relaxation Times in Semiconductors

US–Japan Workshop on RF Heating and Current Generation, GA Technologies Inc., San Diego, California
December 19–21, 1983

RLE P.R. No. 126 242
K. Hizanidis, D.W. Hewett, and A. Bers, Solution of the Relativistic 2-D Fokker-Planck Equation for LH Current Drive

V.B. Krapchev, D.W. Hewett, and A. Bers, Analytic Solution of the 2-D Fokker-Planck Equation for LH Current Drive

1983 International Conference on Advanced Automation, Taiwan, Republic of China
December 19–21, 1983

V.W. Zue and D.P. Huttenlocher, Computer Recognition of Isolated Words from Large Vocabularies: Lexical Access Using Partial Phonetic Information

28.2 Journal Papers Published


L.S. Frishkopf and D.J. DeRosier, Mechanical Tuning of Freestanding Stereociliary Bundles and Frequency Analysis in the Alligator Lizard Cochlea (Hearing Res. 12, 393–404 (1983))


A.M. Hawryluk, H.I. Smith, and D.J. Ehrlich, Deep–UV Spatial–Frequency Doubling by Combining
Publications and Reports


T. Holton and T.F. Weiss, Receptor Potentials of Lizard Cochlear Hair Cells with Free-Standing Stereocilia in Response to Tones (J. Physiol. 345, 205–240 (1983))


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28.3 Journal Papers Accepted for Publication

A. Bers, RF Heating and Current Generation — An Overview and Perspective of This Special Issue (IEEE Trans. (Plasma Sci.))


D.W. Griffin and J.S. Lim, Signal Estimation from Modified Short-Time Fourier Transform (IEEE Trans. (ASSP))

T.M. Habashy and J.A. Kong, Coupling Between Two Circular Microstrip Disk Resonators (Electromagnetics)


C.J. Keavney and H.I. Smith, A 3.8m Period Sawtooth Grating in InP by Anisotropic Hetching (J. Electrochem. Soc.)


P. Kumar, R.S. Bondurant, and J.H. Shapiro, Fluctuations in the Phase-Conjugate Signal Generated via Degenerate Four-Wave Mixing (Optics Comm.)

J.K. Lee and J.A. Kong, Dyadic Green’s Functions for Layered Anisotropic Medium (Electromagnetics)


T.P. Scott, N. Smith, and D.E. Pritchard, Application of Fitting Laws to Rotationally Inelastic Rate Constants: Li₂*(A′Σ) + Ne, Ar, Xe (J. Chem. Phys.)


R.T. Shin and J.A. Kong, Scattering of Electromagnetic Waves from a Randomly Perturbed Quasi–Periodic Surface (J. Appl. Phys.)

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28.4 Letters to the Editor Published


R.F. Kwasnick, M.A. Kastner, J. Melngailis, and P.A. Lee, Nonmonotonic Variations of the

M. Kuznetsov, Expressions for the Coupling Coefficient of Rectangular-Waveguide Directional Coupler (Optics Lett. 8:9, 499–501 (1983))


28.5 Letters to the Editor Accepted for Publication


M. Kaufman, Duality and Potts Critical Amplitudes on a Class of Hierarchical Lattices (Phys. Rev. B (Brief Reports))

E. Wintner and E.P. Ippen, Nonlinear Carrier Dynamics in Ga\textsubscript{x}In\textsubscript{1-x}As\textsubscript{y}P\textsubscript{1-y} Compounds (Appl. Phys. Lett.)

28.6 Special Publications


