

Appendix A. RLE Publications and Papers Presented

This bibliography lists publications and papers and talks presented or published by RLE faculty, staff, and students during 1998, and each section is in alphabetical order by author's name. Section 1 is a list of papers and talks; copies of these papers may be obtained by contacting the authors directly. Section 2 lists journal articles that were published and articles submitted or accepted for publication. Books or 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 and dissertations submitted during 1998. Section 6 lists other reports published at MIT by RLE authors.

Theses, dissertations, 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

- Bilinsky, I.P., B.E. Bouma, and J.G. Fujimoto. "Self-Starting KLM Ti:Al₂O₃ Laser using Semiconductor Doped Glass Structures." Paper presented at the 1998 Conference on Lasers and Electro-Optics, San Francisco, California, May 2-8, 1998.
- Bilinsky, I.P., B.E. Bouma, R. Prasankumar, J.G. Fujimoto, J.N. Walpole, and L.J. Missaggia. "Self-starting KLM Ti Al₂O₃ Laser Using Semiconductor Doped Glass Structures." Conference on Lasers and Electro-Optics San Francisco, California, May 2-8, 1998.
- Boppart, S.A., B.E. Bouma, C. Pitris, M.E. Brezinski, and J.G. Fujimoto. "Optical Coherence Tomography of in vivo Developmental Cellular Dynamics." Experimental Biology Conference, San Francisco, California, April 17-22, 1998.
- Boppart, S.A., J.M. Herrmann, C. Pitris, B.E. Bouma, G. J. Tearney, M.E. Brezinski, and J.G. Fujimoto. "Interventional Optical Coherence Tomography for Surgical Guidance." Conference on Lasers and Electro-Optics San Francisco, California, May 2-8, 1998.
- Chen, F.W., J.W. Barrett, W.J. Blackwell, P.W. Rosenkranz, M.J. Schwartz, and D.H. Staelin. "Millimeter-Wave Spectral Observations of Clouds and Precipitation from Aircraft and Spacecraft." National Radio Science Meeting, Boulder, Colorado, January 4-8, 1999.
- Chen, J., R.V. Dalal, R.J. Ram, and R. Helkey. "Dynamic Range of DFB Lasers." Paper presented at the Conference on Lasers and Electro-Optics, San Francisco, California, May 1998.
- Chen, H., and K.N. Stevens. "Acoustic Analysis of Fricative Consonant Production by Some Dysarthric Speakers' Interpretation in Terms of Models." Biennial Conference on Motor Speech Motor Disorders, and Motor Control, Ninth, Tucson, Arizona, January 29-February 1, 1998.
- Cho, S.H., B.E. Bouma, J.G. Fujimoto, and E.P. Ippen. "A 15 MHz High Peak Power Kerr Lens Mode-locked TiAl₂O₃ Laser Using Multiple Pair Long Cavity." Conference on Lasers and Electro-Optics, San Francisco, California, May 2-8, 1998.
- Cho, S.H., B.E. Bouma, E.P. Ippen, and J.G. Fujimoto. "A 15 MHz, 0.5 MW KLM Ti:Al₂O₃ Laser using Multiple Pass Cavity." Paper presented at the 1998 Conference on Lasers and Electro-Optics, San Francisco, California, May 2-8, 1998.
- Choi, J.Y. "Automatic Speech Recognition Using Landmarks and Features." Lexical Access Workshop, Allensbach, Germany, July 21-27, 1998.
- Coppi, B., and L.E. Sugiyama. "D³He Fusion Burn Experiments with Present Day Technologies." (poster session) American Physical Society, Division of Plasma Physics, New Orleans, Louisiana, November 15-20, 1998.
- Cox, C., H. Roussel, R.J. Ram, and R.J. Helkey. "Broadband, Directly Modulated Analog Fiber Link with Positive Intrinsic Gain and Reduced Noise Figure." Paper Presented at the International Topical Meeting on Microwave Photonics, Princeton, New Jersey, October 1998.
- Dalal, R.V., R.J. Ram, H. Roussel, R. Helkey, and K.D. Choquette. "Vertical Cavity Surface Emitting Lasers for Analog Transmission." Paper Presented at the Conference on Lasers and Electro-Optics, San Francisco, California, May 1998.

- Delhorne, L.A., and C.M. Reed. "Identification of Environmental Sounds Through Cochlear Implants." International Sensory Aids Conference, Portland, Maine, May 11-13, 1998.
- Delhorne, L.A., and W.M. Rabinowitz. "Speech Reception Through Acoustic Simulations of Cochlear Implants." International Sensory Aids Conference Portland, Maine, May 11-13, 1998.
- Dilley, L.C., and S. Shattuck-Hufnagel. "Effects of Repeated Intonation Patterns on Perceived Word-Level Organization." Submitted to the International Congress of Phonetics Sciences, (ICPhS'99), San Francisco, California, August 1-7, 1999.
- Freeman, D.M., A.J. Aranyosi, M.J. Gordon, and S.S. Hong. "Multidimensional Motion Analysis of MEMS Using Computer Microvision." Solid-State Sensor and Actuator Workshop, Hilton Head, South Carolina, June 7-11, 1998.
- Freeman, D.M., and C.Q. Davis. "Using Video Microscopy to Characterize Micromechanical Systems." Invited paper, IEEE/LEOS Summer Topical Meeting, Optical MEMS, Monterey, California, July 20-22, 1998.
- Fujimoto, J.G. "Biomedical Imaging using Optical Coherence Tomography." Plenary talk presented at the Conference on Lasers and Electro-Optics, San Francisco, California, May 3-8, 1998.
- Fujimoto, J.G. "Optical Coherence Tomography for Biomedical Imaging." Paper presented at The International Topical Workshop on Contemporary Photonic Technologies, Tokyo, Japan, January 11-15, 1998.
- Fujimoto, J.G. "Optical Coherence Tomography for Medical Imaging and Diagnosis." Paper presented at the 16th International Conference on Coherent and Nonlinear Optics, Moscow, Russia, June 29-July 3, 1998.
- Fujimoto, J.G. "Optical Coherence Tomography for Biomedical Imaging." Paper presented at the First International Conference on Ultrasonic Biomedical Microscanning, Eastwood Park, UK, September 1-4, 1998.
- Fujimoto, J.G. "Biomedical Imaging using Optical Coherence Tomography." Paper presented at the Fourth Annual Symposium on Frontiers of Engineering, National Academy of Engineering, Irvine, California, September 17-19, 1998.
- Fujimoto, J.G. "Biomedical Imaging using Optical Coherence Tomography." Paper presented at the 19th Congress of the Japan Laser Surgery and Medicine Society, Tokyo, Japan, September 24-25, 1998.
- Goldhaber-Gordon, D. "The Kondo Effect in a Single Electron Transistor." Delft University of Technology and Leiden Cryogenic Company, Delft, Amsterdam, October 1998.
- Gow, D. "Assimilation and Anticipation Representation and Processing of Sound Modification in Connected Speech." Lexical Access Workshop, Allensbach, Germany, July 21-27, 1998.
- Goobar, E., H.V. Lee, R.J. Ram, and K.D. Choquette. "Reduced Timing Jitter in Surface Emitting Lasers." Paper presented at the Conference on Lasers and Electro-Optics, Baltimore, Maryland, May 23 - 28, 1999.
- Goodberlet, J., and H.I. Smith. "A Scintillating Global-Fiducial Grid for Electron-Beam Lithography." Paper presented at the 1998 Electron, Ion and Photon Beam Technology and Nanofabrication Conference, Chicago, Illinois, May 26-29, 1998.
- Goodberlet, J. "A Very-High-Density Scintillation-Data-Storage Device." Paper presented at the Conference on Micro and Nano Engineering, Leuven, Belgium, September 22-24, 1998.
- Grumet, A.E. "Short Pulses, Small Electrodes, Low Currents Directly Stimulate Rabbit Retinal Ganglion Cells." Paper presented at the 29th Annual Neural Prosthesis Workshop, Bethesda, Maryland, October 28-30, 1998.
- Grumet, A.E., J.L. Wyatt, and J.F. Rizzo. "Multi-Electrode Recording and Stimulation of the Salamander Retina *in vitro*." Paper presented at the Association for Research in Vision and Ophthalmology Annual Meeting (ARVO), Ft. Lauderdale, Florida, May 1998.
- Grumet, A.R., J.F. Rizzo, and J.L. Wyatt. "Multi-electrode and Stimulation of the Salamander Retina *in vitro*." Association for Research in Vision and Ophthalmology, Ft. Lauderdale, Florida, May 12-14, 1998.
- Hagelstein, P.L. "Possibility of Off-Resonant Superradiant Effects." Paper presented at the International Conference on X-ray Lasers and Applications, Kyoto, Japan, September 1998.

- Hara, Y., J.J. Akerson, J.A. Kong, C. Satoh, and Y.E. Yang. "A Weighted Least Squares Phase Unwrapping Technique Using Residues for SAR Interferometry." International Symposium on Noise Reduction for Imaging and Communication Systems, Tokyo, Japan, November 10-12, 1998.
- Haus, H.A., and Y. Chen. "Dispersion Managed Stretched Pulse Propagation." European Optical Communications Conference, Madrid, Spain, September 20-October 3, 1998.
- Ho, C., C. Basdogan, M. Slater, N.I. Durlach, and M.A. Srinivasan. "An Experiment on The Influence of Haptic Communication on the Sense of Being Together." Paper presented at the British Telecom Workshop on Presence in Shared Virtual Environments, Ipswich, Massachusetts, June 10-11, 1998.
- Hu, Q. "Terahertz Emitters Based on Intersubband Transitions." Invited paper presented at the IEEE Lasers and Electro-Optical Society (LEOS), Meeting session WB3, Orlando, Florida, December 1998.
- Ippen, E.P., and H.A. Haus. "Ultrafast Fiber Devices." IEEE LEOS Annual Meeting, Orlando, Florida, November 30-December 3, 1998.
- Jiang, L.A., E.P. Ippen, S. Diez, C. Schmidt, and H.G. Weber. "Wavelength and Intensity Sampling of Optical Signals using Semiconductor Optical Amplifiers." Paper to be presented at the Conference on Lasers and Electronic Optics CLEO '99, Baltimore, Maryland, May 23 - 28, 1999.
- Jones, D.J., S. Namiki, E.P. Ippen, H.A. Haus, and D. Barbier. "Passively Mode-Locked Fiber Laser Using a Er-Yb Co-doped Planar Waveguide Amplifier." Optical Fiber Communication Conference, San Jose, California, February 23-28, 1998.
- Kalluri, S., and B. Delgutte. "A Model of Ventral Cochlear Nucleus Onset Units." Abstracts of the NATO Advanced Study Institute on Computational Hearing, Lucca, Italy, July 1998.
- Kärtner, F.X., U. Morgner, S.H. Cho, J. Fini, J.G. Fujimoto, and E.P. Ippen. "Advances in Short Pulse Generation." Invited talk presented at the Annual Meeting of the IEEE Laser and Electro-Optics Society, Orlando, Florida, December 1-4, 1998.
- Kärtner, F.X., U. Morgner, S.H. Cho, Y. Chen, H.A. Haus, J.G. Fujimoto, and E.P. Ippen. "Ultrashort Pulse Generation with the Ti:Sapphire Laser." Paper presented at the International Conference on Lasers and Electro-Optics (CLEO 99), Baltimore, Maryland, May 23-28, 1999.
- Ketterle, W. "Dynamic Properties of Bose-Einstein Condensates' Formation and Sound at Non-zero Temperatures (invited talk)." Bose-Einstein Conference, Santa Barbara, California, March 28-April 3, 1998.
- Ketterle, W. "'A New Form of Matter' Bose-Einstein Condensation and the Atom Laser (public talk)." Bose-Einstein Conference, Santa Barbara, California, March 28-April 3, 1998.
- Koksal, A.E., J.H. Shapiro, and W.M. Wells, III, "Model-Based Object Recognition Using Laser Radar Range Imagery." Paper presented at SPIE Aero Sense'99, Orlando, Florida, April 5-9, 1999.
- Kostakis, J., M. Cooper, T.J. Green, Jr., M.I. Miller, J.A. O'Sullivan, J.H. Shapiro, and D.L. Snyder. "Multispectral Active-Passive Sensor Fusion for Ground-Based Target Orientation Estimation." SPIE Aerospace Conference, Orlando, Florida, April 14-17, 1998.
- Kostakis, J., M. Cooper, T.J. Green, Jr., M.I. Miller, J.A. O'Sullivan, J.H. Shapiro, and D.L. Snyder. "Multispectral Sensor Fusion for Ground-Based Target Orientation Estimation: FLIR, LADAR, HRR." Paper presented at SPIE Aero Sense'99, Orlando, Florida, April 5-9, 1999.
- Krause, J., and L. Braida. "Properties of Naturally Produced Clear Speech at Normal Speaking Rates." International Sensory Aids Conference, Portland, Maine, May 11-13, 1998.
- Lee, C.-H., and J.N. Newman. "An Assessment of Hydroelasticity for Very Large Hinged Vessels." Paper presented at Hydroelasticity '98, Fukuoka, Japan, 1998.
- Lee, C.-H., L. Farina, and J.N. Newman. "A Geometry Independent Higher-order Panel Method and its Application to Wave-body Interactions." Paper presented at the Engineering Mathematics and Applications Conference, Adelaide, Australia, 1998.
- Lee, H., R.V. Dalal, R.J. Ram, and K.D. Choquette. "Resonant Distortion in Vertical Cavity Surface Emitting Lasers." Paper presented at the Optical Fiber Conference, San Diego, California, February 1999.
- Lim, K.Y., D.J. Ripin, G.S. Petrich, L.A. Kolodziejcki, E.P. Ippen, M. Mondol, H.I. Smith, P.R. Villeneuve, S. Fan and J.D. Joannopoulos. "Photonic Bandgap Waveguide Microcavities: Monorails and Airbridges." Paper presented at the 17th North American Conference on

- Molecular Beam Epitaxy, University Park, Pennsylvania, October 4-7, 1998. *J. Vac. Sci. Tech. B*. Forthcoming.
- Mason, E.J., and N.C. Wong. "Observation of Two Distinct Phase States in a Self-Phase Locked KTP Optical Parametric Oscillator." Paper published in the Digest of Conference on Lasers and Electro-Optics, San Francisco, California, May 3-8, 1998.
- Laneman, J.N., and G.W. Wornell. "Robust Equalization for Spread-response Precoding Systems." International Conference on Acoustics, Speech and Signal Processing, Seattle, Washington, May 9-15, 1998.
- Lee, L, and A.V. Oppenheim. "Distributed Signal Processing." Army Federated Laboratory Symposium, Baltimore, Maryland, February 2-3, 1998.
- Manuel, S.Y. "Casual Speech: A Rich Source of Intriguing Puzzles." Paper to be presented at the International Congress of Phonetics Sciences, (ICPhS'99), San Francisco, California, August 1-7, 1999. Forthcoming.
- Mason, E.J., and N.C. Wong. "Observation of Two Distinct Phase States in a Self-phase Locked KTP Optical Parametric Oscillator." CLEO/QELS Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science, San Francisco, California, May 3-8, 1998.
- Massoud, Y., and J. White. "Fast Inductance Extraction of 3-D Structures with Non-constant Permeabilities." Paper presented at the International Conference on Modeling and Simulation of Microsystems, Semiconductors, Sensors and Actuators, Santa Clara, California, April 1998.
- McKinney, M.F., and B. Delgutte. "Correlates of the Subjective Octave in Auditory-nerve Fiber Responses: Effect of Phase-locking and Refractoriness." Abstracts of the 21st Midwinter Meeting of the Association for Research in Otolaryngology, St. Petersburg Beach, Florida, February 15-19, 1998, p. 138.
- Morgner, U., S.H. Cho, J. Fini, F.X. Kärtner, H.A. Haus, J.G. Fujimoto, and E.P. Ippen. "5.5 fs Pulses from a Kerr-Lens Modelocked Ti:Sapphire Laser." Paper presented at the Advanced Solid-State Laser Conference (ASSL 99), Boston, Massachusetts, February 1-5, 1999.
- Moyne, W. "Integrating Manufacturing Variation Information into MEMS Design (talk)." Carnegie-Mellon University Workshop, Pittsburgh, Pennsylvania, March 26-27, 1998.
- Nee, P.T., and N.C. Wong. "Three-to-One Optical Frequency Division at 532 nm Using a Double-grating Periodically-poled Lithium Niobate." CLEO/QELS Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science, San Francisco, California, May 3-8, 1998.
- Pakter, H.M., J.S. Schuman, E. Hertzmark, I.D. Peiris, T. Pedut-Kloizman, M.R. Hee, L. Pieroth, J.C. Schwartz, C.A. Puliafito, J.G. Fujimoto, E.A. Swanson, and C. Mattox. "Normative Database of Nerve Fiber Layer Thickness by Age as Measured by Optical Coherence Tomography." Paper presented at the Association for Research in Vision and Ophthalmology Annual Meeting, Fort Lauderdale, Florida, May 10-15, 1998.
- Papadopoulos, H.C., G. W. Wornell, and A.V. Oppenheim. "Low-complexity Digital Encoding Strategies for Wireless Sensor Networks." International Conference on Acoustics, Speech and Signal Processing, Seattle, Washington, May 9-15, 1998.
- Papadopoulos, H.C., G.W. Wornell, and A.V. Oppenheim. "A Class of High-Performance Low-Complexity Wireless Sensor Networks." Advanced Telecommunications Information Distribution Research Program, Second Conference, Washington, D.C., February 4-8, 1998.
- Patterson, S.G., G. Petrich, and L.A. Kolodziejski. "Analysis of X-Diffraction from Distributed Bragg Reflectors." Paper presented at the 17th North American Conference on Molecular Beam Epitaxy, University Park, Pennsylvania, October 4-7, 1998.
- Patterson, S.G., G.S. Petrich, R.J. Ram, and L.A. Kolodziejski. "Band Gap Engineering of Distributed Bragg Reflectors." Paper presented at the 17th North American Conference on Molecular Beam Epitaxy, University Park, Pennsylvania, October 4-7, 1998.
- Peiris, I.D., J.S. Schuman, H.M. Pakter, E. Hertzmark, T. Pedut-Kloizman, M.R. Hee, L. Pieroth, J.C. Schwartz, C.A. Puliafito, J.G. Fujimoto, E.A. Swanson, and C. Mattox. "Detection of Nerve Fiber Layer Thinning in Glaucomatous Human Eyes using Optical Coherence Tomography." Paper presented at the Association for Research in Vision and Ophthalmology Annual Meeting, Fort Lauderdale, Florida, May 10-15, 1998.
- Perkell, J.S. "Speech Communication, Segmental Phonetics, L2, and Cross Language Studies (Poster Session)." Joint International Congress on Acoustics and Acoustical Society of America Meeting, Seattle, Washington, June 21-30, 1998.

- Perkell, J.S., M.L. Matthies, and M. Zandipour. "Motor Equivalence in the Production of /s/." Joint International Congress on Acoustics and Acoustical Society of America Meeting, Seattle, Washington, June 21-30, 1998.
- Pitris, C., S.A. Boppart, D. Stamper, M.E. Brezinski, and J.G. Fujimoto. "High Resolution Imaging of Early Neoplastic Lesions Using Optical Coherence Tomography." Thirteenth Mediterranean Conference on Medical and Biological Engineering and Computing, Limosol, Cyprus, June 14-17, 1998.
- Pitris, C., S.A. Boppart, B.E. Bouma, J.G. Fujimoto, M.E. Brezinski. "Cellular and Neoplastic Tissue Imaging with Optical Coherence Tomography." Conference on Lasers and Electro-Optics, San Francisco, California, May 3-8, 1998.
- Pitris, C., S.A. Boppart, P. Patwari, B.E. Bouma, G.J. Tearney, and J.G. Fujimoto. "In-Vivo Catheter-based Imaging with Optical Coherence Tomography." Optical Society of America Meeting on Advances in Optical Photon Migration, Orlando, Florida, March 6-13, 1998.
- Pitris, C., S.A. Boppart, D. Stamper, M.E. Brezinski, and J.G. Fujimoto. "High Resolution Imaging of Early Neoplastic Lesions using Optical Coherence Tomography." Paper presented at the VII Mediterranean Conference on Medical and Biological Engineering and Computing, Limassol, Cyprus, June 14-17, 1998.
- Pitris, C., A.K. Goodman, C.A. Jesser, M.E. Brezinski, and J.G. Fujimoto. "High Resolution Imaging of Neoplastic Changes in Gynecological Tissues using Optical Coherence Tomography." Paper presented at the 34th Annual Meeting of the American Society of Clinical Oncology, Los Angeles, California, May 16-19, 1998.
- Poort, K.L. "Stop-Consonant Production by Dysarthric Speakers' Use of Models to Interpret Acoustic Data." Joint International Congress on Acoustics and Acoustical Society of America Meeting, Seattle, Washington, June 21-30, 1998.
- Prahler, A.M. "Modeling and Synthesis of the Lateral Consonant //." Joint International Congress on Acoustics and Acoustical Society of America Meeting, Seattle, Washington, June 21-30, 1998.
- Ramaswamy, D., N.R. Aluru, and J. White. "A Mixed Rigid/Elastic Formulation for Efficient Analysis of Electromechanical Systems." Paper presented at the International Conference on Modeling and Simulation of Microsystems, Semiconductors, Sensors and Actuators, Santa Clara, California, April 1998.
- Rosenkranz, P.W. "A Re-examination of Recent Models for the Microwave Continuum of Water Vapor." International Geoscience and Remote Sensing Symposium, Seattle, Washington, July 6-10, 1998.
- Rosenkranz, P.W. "Improved Rapid Transmittance Algorithm for Microwave Sounding Channels." International Geoscience and Remote Sensing Symposium, Seattle, Washington, July 6-10, 1998.
- Shapiro, J.H. "Advanced Optoelectronic Components for All-Optical Networks (poster session)." DARPA Program Review, Reston, Virginia, February 10-12, 1998.
- Shattuck-Hufnagel, S. "Testing a Landmark-Feature Based Model on Spontaneous Speech Preliminaries." Lexical Access Workshop, Allensbach, Germany, July 21-27, 1998.
- Shattuck-Hufnagel, S., and A. Cutler. "The Prosody of Speech Error Corrections Revisited." Paper to be presented at the International Congress of Phonetics Sciences, (ICPhS'99), San Francisco, California, August 1-7, 1999. Forthcoming.
- Shih, S.E., K.H. Ding, J.A. Kong, and Y. Zhang. "Subsurface Detection Based on Enhanced SAR Signatures Using Angular Correlation Function." IEEE IGARSS, Seattle, Washington, July 6-9, 1998.
- Shih, S.E., K.H. Ding, A.K. Jordan, J.A. Kong, and S.V. Nghiem. "Saline Ice Thickness Retrieval under Diurnal Thermal Cycling Conditions." IEEE IGARSS, Seattle, Washington, July 6-9, 1998.
- Stevens, K.N. "Overview of Landmark-Feature Based System for Lexical Access." Lexical Access Workshop, Allensbach, Germany, July 21-27, 1998.
- Stevens, K.N., and S.Y. Manuel. "Revisiting Place of Articulation Measures for Stop Consonants: Implications for Models of Consonant Production." Paper to be presented at the International Congress of Phonetics Sciences, San Francisco, California, August 1-7, 1999. Forthcoming.
- Strauss, H.R., W. Park, G.Y. Fu, E. Belova, X. Tang, and L.E. Sugiyama. "3D MHD Simulations of Pellet Drive Tokamak Instabilities." (poster session) American Physical Society, Division of Plasma Physics, New Orleans, Louisiana, November 15-20, 1998.
- Sugiyama, L.E. "A New Toroidal Theory for the V1 Internal Kink Mode (poster session)." American

- Physical Society, Division of Plasma Physics, New Orleans, Louisiana, November 15-20, 1998.
- Tan, H.Z., N.F. Wan, and C.M. Reed. "Masking and Temporal Integration with a Multi-finger Tactual Display." International Sensory Aids Conference, Portland, Maine, May 11-13, 1998.
- Thoen, E.R., E.M. Koontz, D.J. Jones, P. Langlois, F.X. Kärtner, E.P. Ippen, L.A. Kolodziejski, and D. Barbier. "Picosecond Pulses from an Er/Yb Waveguide Laser Passively Mode-locked with a Semiconductor Saturable Absorber Mirror." Paper to be presented at the Conference on Lasers and Electro-Optics (CLEO 99), Baltimore, Maryland, May 23-28, 1999.
- Thoen, E.R., E.M. Koontz, D.J. Jones, F.X. Kärtner, E.P. Ippen, L.A. Kolodziejski, and D. Barbier. "Suppression of Instabilities and Pulsewidth Limitation by Two-photon Absorption in a Mode-locked Laser." Paper to be presented at the Conference on Lasers and Electro-Optics (CLEO 99), Baltimore, Maryland, May 23-28, 1999.
- Toth, C.A., D.G. Narayan, K.P. Winter, W.P. Roach, C.P. Cain, G.D. Noojin, C.D. DiCarlo, S.A. Boppart, M.R. Hee, R. Birngruber, J.G. Fujimoto, and B.A. Rockwell. "Location of Picosecond Laser Retinal Injury Varies with Energy and Spot Size." Association for Research in Vision and Ophthalmology Annual Meeting, Fort Lauderdale, Florida, May 10-15, 1998.
- Wang, A.C., and G.W. Wornell. "Prediction and Estimation for Fractal Processes Using Multiscale State-Space Algorithms." International Conference on Acoustics, Speech and Signal Processing, Seattle, Washington, May 9-15, 1998.
- Wang, F., and J. White. "Automatic Model Order Reduction of a Microdevice using the Arnoldi Approach." Paper presented at the International Mechanical Engineering Congress and Exposition, Anaheim, California, November 1998.
- Williams, B.S., B. Riely, and Q. Hu. "Mid-Infrared GaAs Quantum Cascade Emitter." Session Q27.02, American Physical Society Meeting, Los Angeles, California, March 16-22, 1998.
- Wong, W.S., H.A. Haus, L.A. Jiang, P.B. Hansen, and M. Margalit. "Photon Statistics of Amplified Spontaneous Emission Noise in a 10 Gb/s Optically Pre-amplified Lightwave Direct Detection Receiver." IEEE LEOS Annual Meeting, Orlando, Florida, November 30-December 3, 1998.
- Wornell, G.W. "Creating and Exploiting Diversity in Wireless Systems: A Signal Processing Perspective." International Symposium on Circuits and Systems, Los Angeles, California, May 30-June 9, 1998.
- Wu, W., C. Basdogan, and M.A. Srinivasan. "The Effect of Perspective on Visual-Haptic Perception of Object Size and Compliance In Virtual Environments." Submitted to the Winter Annual Meeting of ASME, Nashville, Tennessee, November 14-19, 1999.
- Wyatt, J.L. "Steps Toward a Microelectronic Retinal Implant for the Blind." Great Lakes Symposium on VLSI, Lafayette, Louisiana, February 19-27, 1998.
- Xu, B. "Electrically Pumped Terahertz Emitter based on Intersubband Transition." Invited paper presented at the 1998 American Physical Society March meeting, session U21.01, Los Angeles, California, March 1998.
- Yang, Y.-J., F.T. Korsmeyer, V. Rabinovich, M. Ding, S.D. Senturia, and A.I. Akinwande. "An Efficient Three-dimensional CAD Tool for Field-emission Devices." Paper presented at the IEEE International Electron Devices Meeting, San Francisco, California, 1998.
- Yang, Y.E., H. Braunisch, J.A. Kong, and Y. Zhang. "Electromagnetic Wave Scattering From Conducting Objects Partially Buried under a Randomly Rough Surface." Progress in Electromagnetics Symposium, Taipei, Taiwan, March 22-26, 1999.
- Yang, Y.E., J. A. Kong, and Y. Zhang. "Investigation of Polarimetric Thermal Emission of Foam-covered Wind-driven Ocean Surface Using the Radiative Transfer Theory." URSI General Assembly, Toronto, Canada, August 13-21, 1999.
- Yeang, C.-P., and J.H. Shapiro. "Target Detection Theory for Stripmap SAR Using Physics-Based Multiresolution Signatures." SPIE Aerospace Conference, Orlando, Florida, April 14-17, 1998.
- Zhang, Y., H. Braunisch, Y.E. Yang, and J.A. Kong. "Electromagnetic Wave Interaction of Conducting Object with Rough Surface by Hybrid SPM/MoM Technique." Progress in Electromagnetic Symposium, Taipei, Taiwan, March 22-26, 1999.
- Zhang, Y., H. Braunisch, J.A. Kong, and Y.E. Yang. "Electromagnetic Scattering From Conducting Objects Above a Randomly Rough Surface." National Radio Science Meeting Boulder, Colorado, January 4-7, 1999.
- Zurek, P.M., J.E. Greenberg, M. Brantley, A.R. Brughera, and W.M. Rabinowitz. "Laboratory Assessment of Advanced Signal Processing Algorithms for Hearing Aids." Paper presented at

the Fifth Biennial Conference on Issues in Advanced Hearing Aid Research, Lake Arrowhead, California, 1998.

A.1.2 Published Meeting Papers

- Abnet, C.C., and D.M. Freeman. "Deformations of the Isolated Mouse Tectorial Membrane Produced by Calibrated Oscillatory Forces." *Abstracts of the 21st Midwinter Research Meeting of the Association for Research in Otolaryngology*, St. Petersburg Beach, Florida, February 15-19, 1998, p. 183.
- Aluru, N.R., and J. White. "A Fast Integral Equation Technique for Analysis of Microflow Sensors Based on Drag Force Calculations." Paper published in the *Proceedings of the International Conference on Modeling and Simulation of Microsystems, Semiconductors, Sensors and Actuators*, Santa Clara, California, April 1998, pp. 283-86.
- Aranyosi, A.J., C.Q. Davis, and D.M. Freeman. "Experimental Measurements of Micro-mechanical Transfer Functions in the Alligator Lizard." *Abstracts of the 21st Midwinter Research Meeting of the Association for Research in Otolaryngology*, St. Petersburg Beach, Florida, February 15-19, 1998, p. 183.
- Barron, R.J., C.K. Sestok, and A.V. Oppenheim. "Speech Enhancement Using Spectral Envelope Side Information." Paper published in the *Proceedings of International Conference on Acoustics, Speech, and Signal Processing-98*, Seattle, Washington, May 1998.
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