

DEMETRI PSALTIS

ACADEMIC POSITIONS

- Professor and Director of Optics Laboratory, EPFL, 2007- present.
- Dean of School of Engineering, EPFL 2007 - 2016
- Director, DARPA Center for Optofluidic Integration, 2004 to 2008.
- *Thomas G. Myers*, Professor of Electrical Engineering, California Institute of Technology, 1996 – 2008.
- Visiting Professor, Electrical and Computer Engineering, Massachusetts Institute of Technology 2003-2004.
- Director, National Science Foundation Center for Neuromorphic Systems Engineering, California Institute of Technology, 1996 – 1999.
- Professor of Electrical Engineering, California Institute of Technology, 1990 – 1996.
- Executive Officer, Computation and Neural Systems, California Institute of Technology, 1992 – 1996.
- Visiting Professor of Electrical Engineering, Stanford University, 1991.
- Visiting Professor at the National Technical University of Athens, 1991.
- Associate Professor of Electrical Engineering, California Institute of Technology, 1985-1990.
- Assistant Professor of Electrical Engineering, California Institute of Technology, 1980-1985.
- Visiting Assistant Professor of Electrical Engineering, Carnegie-Mellon University, 1979 -1980.
- Research Associate, Carnegie-Mellon University, 1977-1979.
- Research Assistant, Carnegie-Mellon University, 1975-1977.

OTHER POSITIONS

- SPIE Board member, 2014-2017.
- Campus Biotech Board member, 2014-2017.
- Wyss Institute Board member, 2014-2017

EDUCATION

- B.Sc. Electrical Engineering, Carnegie-Mellon University, 1974.
- B.Sc. Economics, Carnegie-Mellon University, 1974.
- M.Sc. Electrical Engineering, Carnegie-Mellon University, 1975.
- Ph.D. Electrical Engineering, Carnegie-Mellon University, 1977.

RESEARCH INTERESTS

- Optofluidics.
- Biophotonics.
- Nonlinear Optics.
- Holography.
- Optical Information Processing.

HONORS

- 2016 OSA – Joseph Fraunhofer Award/Robert M. Burley Prize
- 2012 EOS Fellow.
- 2012 OSA – Emmett N. Leith Medal.
- 2006 SPIE Dennis Gabor Award.
- 2005 IEEE Fellow.
- 2003 Photorefractive Conference '03 Best Application Conference Prize.
- 2003 Humboldt Research Award for Senior U. S. Scientists.
- 2002 NASA Space Act Award.
- 1990 International Commission of Optics (ICO) Prize for contributions in Optical Information Processing
- 1989 Optical Society of America, Fellow.
- 1986 Society of Photo-optical Instrumentation Engineers, Fellow.

PUBLICATIONS

JOURNAL ARTICLES

2018

1. "Learning to see through multimode fibers"; N Bohrani, E Kakkava, C Moser, D Psaltis; arXiv:1805.05614 (2018)
2. "Multimode optical fiber transmission with a deep learning network"; B Rahmani, D Loterie, G Konstantinou, D Psaltis, C Moser; arXiv:1805.05134 (2018)
3. "Learning tomography assessed using Mie theory"; JW Lim, A Goy, MH Shoreh, M Unser, D Psaltis; Phys. Rev. Applied, 9, 034027 (2018)
4. "Inertial manipulation of bubbles in rectangular microfluidic channels"; P Hadikhani, SMH Hashemi, G Balestra, L Zhu, MA Modestino, F Gallaire, D Psaltis; Lab on a Chip, DOI: 10.1039/c7lc01283g (2018)
5. "Versatile reconstruction framework for diffraction tomography with intensity measurements and multiple scattering", T-A Pham, E Soubies, A Goy, JW Lim, F Soulez, D Psaltis, M Unser, Optics Express 26(3), 2749-2763 (2018)
6. "Single-photon three-dimensional microfabrication through a multimode optical fiber", P Delrot, D Loterie, D Psaltis, C Moser, Optics Express 26 (2), 1766-1778 (2018)

2017

1. "A 21.5% Efficient Stand-Alone Solar Chloralkali Generator Employing a Microtracking Solar Concentrator"; Enrico Chinello, Miguel A. Modestino, Laurent Coulot, Mathieu Ackermann, Florian Gerlich, Demetri Psaltis, Christophe Moser (2017); Global Challenges, 1700095
2. "High power, ultrashort pulse control through a multi-core fiber for ablation"; Donald B. Conkey, Eirini Kakkava, Thomas Lanvin, Damien Loterie, Nicolino Stasio, Edgar E. Morales-Delgado, Christophe Moser, Demetri Psaltis; Optics Express, Vol. 25, 10, pp. 11491-11502
3. "Three-dimensional microfabrication through a multimode optical fiber"; Edgar E. Morales-Delgado, Loic Urio, Donald B. Conkey, Nicolino Stasio, Demetri Psaltis, Christophe Moser; Optics Express, Vol. 25, 6, pp. 7031-7045
4. "Bend translation in multimode fiber imaging"; Damien Loterie, Demetri Psaltis, Christophe Moser; Optics Express, Vol 25, 6, pp. 6263-6273

5. "Membrane-less micro fuel cell based on two-phase flow"; S.Mohammad H.Hashemi, Matthias Neuenschwander, Pooria Hadikhani, Miguel A. Modestino, Demetri Psaltis; Journal of Power Sources, Vol 348, pp. 212-218

2016

1. "The potential for microfluidics in electrochemical energy systems"; Miguel A. Modestino, David Fernandez Rivas, S. Mohammad H. Hashemi, Han Gardeniers and Demetri Psaltis; Energy & Environmental Science, Vol 9, pp 3381-3391
2. "Solar-to-hydrogen production at 14,2% efficiency with silicon photovoltaics and earth abundant electrocatalysts"; Jan-Willem Schüttauf, Miguel A. Modestino, Enrico Chinello, David Lambelet, Antonio Delfino, Didier Dominé, Antonin Faes, Matthieu Despeisse, Julien Bailat, Demetri Psaltis, Christophe Moser, Christophe Ballif; Journal of the Electrochemical Society, Vol 163, Issue 10, F1177-F1181
3. "Inkjet printing of viscous monodisperse microdroplets by laser-induced flow focusing"; Paul Derlot, Miguel A. Modestino, François Gallaire, Demetri Psaltis, Christophe Moser; Physical Review Applied, Vol 6, Issue 2, 024003
4. "Calibration-free imaging through a multicore fiber using speckle scanning microscopy", Nicolino Stasio, Christophe Moser and Demetri Psaltis; Optics Letters, Vol 41, Issue 13, 3078-3081
5. "Surgical anatomy of the human round window region: implication for cochlear endoscopy through the external auditory canal", Takeshi Fujita, Jung E. Shin, MaryBeth Cunnane, Kyoko Fujita, Simon Henein, Demetri Psaltis, Konstantina M. Stankovic, Otology & Neurology, 1
6. "Optical Computing: Past and Future", Ravi Athale and Demetri Psaltis, Optics & Photonics News, volume 27, June
7. "Optofluidics of plants", Demetri Psaltis, Andreas E. Vasdekis, Jae-Woo Choi, APL Photonics, 1, 020901
8. "Lensless two-photon imaging through a multicore fiber with coherence-gated digital phase", Donald Conkey, Nicolino Stasio, Marilisa Romito, Edgar E. Morales-Delgado, Christophe Moser, Demetri Psaltis; Journal of Biomedical Optics, 21, 045002
9. "Hollow Mesoporous Plasmonic Nanoshells for Enhanced Solar Vapor Generation"; Marcin S. Zielinski, Jae-Woo Choi, Thomas La Grange, Miguel A. Modestino, S. Mohammad H. Hashemi, Ye Pu, Susanne Birkhold, Jeffrey A. Hubbell, Demetri Psaltis; Nano Letters; 16, 2159-2167
10. "Human audiometric thresholds do not predict specific cellular damage in the inner ear"; Lukas D. Landegger, Demetri Psaltis,, Konstantina M. Stankovic; Hearing Research, Vol 335, 83-93
11. "Optical tomographic image reconstruction based on beam propagation and sparse regularization"; Ulugbek S. Kamilov, Ioannis N. Papadopoulos, Morteza H. Soreh, Alexandre Goy, Cedric Vonesh, Michael Unser, Demetri Psaltis, IEEE Transactions on Computational Imaging, Vol 2, no.1, 59-70
12. "Imaging with Multimode Fibers"; Demetri Psaltis, Christophe Moser, Optics & Photonics News; Vol 27, January
13. "STED imaging of green fluorescent nanodiamonds containing nitrogen-vacancy-nitrogen centers"; Gregoire P. J. Laporte, Demetri Psaltis, Biomedical Optics Express; vol 7, issue 1, 34-44

2015

1. "Confocal microscopy through a multimode fiber using optical correlation"; Damien Loterie, Sebastianus A. Gooden, Demetri Psaltis, Christophe Moser, Optics Letters; vol 40, issue 24, 5754-5757
2. "Two-photon imaging through a multimode fiber"; Edgar E. Morales-Delgado, Demetri Psaltis, Christophe Moser; Optics Express; vol23, Issue 25, 32158-32170
3. "Light control in a multicore fibers using the memory effect"; Nicolino Stasio, Donald Conkey, Christophe Moser, Demetri Psaltis,; Optics Express, Vol 23, Issue, 30532-30544

4. "Towards new applications using capillary waveguides"; Nicolino Stasio, Atsushi Shibukawa, Ioannis N. Papadopoulos, Salma Farahi, Olivier Simandoux, Jean-Pierre Huignard, Emmanuel Bossy, Christophe Moser, Demetri Psaltis; Biomedical Optics Express, Vol6, Issue 12, 4619-4631
5. "Enhanced resolution in a multimode fiber imaging system"; G.P.J. Laporte, N. Stasio, C. Moser, D. Psaltis; Optics Express, Vol 23, Issue 21, 27484-27493
6. "Digital confocal microscopy through a multimode fiber"; D. Loterie, S. Farahi, I. N. Papadopoulos, A. Goy, D. Psaltis, C. Moser; Optics Express, Vol23, Issue 18, 23845-23858.
7. "Subsurface ablation of atherosclerotic plaque ultrafast laser pulses"; T. Lanvin, S. D.B. Conkey, A. Frobert, J. Valentin, J-J Goy, S. Cook, M-N Giraud, D. Psaltis; Biomed. Opt.Express6(7), 2552-2561.
8. "Learning Approach to Optical Tomography", M.H. Shoreh, U.S. Kamilov, I. N. Papadopoulos, A. Goy, C. Vonesch, M. Unser, D. Psaltis; Optica Volume 2, Issue 6, pp 517-522
9. "Isotropic inverse-problem approach for two-dimensional phase unwrapping"; Ulugbek S. Kamilov, Ioannis N. Papadopoulos, Morteza H. Shoreh, Demetri Psaltis, Michael Unser; Journal of the Optical Society of America; A32(6); 1092-1100
10. "Vapor-fed microfluidic hydrogen generator", Miguel A. Modestino, Mikael Dumortier, S. Mohammad H. Hashemi, Sophia Haussener, Christophe Moser, Demetri Psaltis; Lab on a Chip; 15; 2287-2296
11. "A membrane-less electrolyzer for hydrogen production across the pH scale"; S. Mohammad H. Hashemi, Miguel A. Modestino, Demetri Psaltis; Energy and Environmental Science, 2015, 8, 2003-2009
12. "Delivery of focused short pulses through a multimode fiber", Morales-Delgado Edgar E, Farahi Salma, Papadopoulos Ioannis N., Psaltis Demetri Moser Christophe; Optics Express, Vol23 Issue7, pp.9109-9120
13. "Optical-resolution photoacoustic imaging through thick tissue with a thin capillary as a dual optical-in acoustic-out waveguide", O. Simandoux, N. Stasio, J. Gateau, J-P Huignard, C. Moser, D. Psaltis and E. Bossy, arXiv:1502.02213 (physics.optics), Feb. 2015
14. "Improving the quality of filament-impaired images in Kerr media by statistical averaging", A. S. Goy, K. G. Makris and D. Psaltis, Optics Express, Vol.23, Iss1, pp.431-444

2014

1. "Resolution enhancement in nonlinear scanning microscopy through post-detection digital computation", G.P.J. Laporte, N. Stasio, C.J.R. Sheppard and D. Psaltis, Optica, Vol.1, Issue6, pp.455-460, December 2014
2. "Design and cost considerations for practical solar-hydrogen generators", Rodriguez Claudia, Modestino Miguel, Moser Christophe, Psaltis D, Energy & environmental science, October 2014
3. "A micropillar array for sample concentration via in plane evaporation", Choi JW, Hosseini Hashemi SM, Erickson D, Psaltis K, Biomicrofluidics 8,no.4 (2014): 044108, July 2014
4. "Superhydrophobic bulls-eye for surface-enhanced Raman scattering", Song W, Psaltis D, Crozier K, Lab on a Chip, DOI 10.1039/C4LC00477A, August 2014
5. "Modified McCannel Iridoplasty Simulation Basal Iridectomy for Silicone Oil Tamponade in Aphakia and Partial Aniridia", Thommen F, Gallaire F, Psaltis D, Wolfensberger T.J., Klin Monatsbl Augenheilkd,231:4, pp. 418-420, April 2014
6. "Solar thermal harvesting for enhanced photocatalytic reactions", Hashemi SMH, Choi JW, Psaltis D, Physical Chemistry Chemical Physics, Vol.16, pp. 5137-5141, February 2014
7. "Imaging blood cells through scattering biological tissue using speckle scanning microscopy", Yang X, Pu Y, Psaltis D, Optics Express, Vol22, pp3405-3413, January 2014

2013

1. "Double-helix enhanced axial localization in STED nanocopy", Laporte GPJ, Conkey DB, Vasdekis A, Piestun R, Psaltis D, Optics Express, Vol.21, pp. 30984-30992, December 2013

2. "Dynamic bending compensation while focusing through a multimode fiber", Farahi S, Ziegler D, Papadopoulos IN, Psaltis D, Moser C, Optics Express, Vol. 21, pp 22504-22514, September 2013
3. "Increasing the imaging capabilities of multimode fibers by exploiting the properties of highly scattering media", Papadopoulos IN, Farahi S, Moser C, Psaltis D, Optics Letters, Vol. 38, pp 2776-2778, August 2013
4. "Imaging in focusing Kerr media using reverse propagation", Goy A, Psaltis D, Photonics Research, Vol1, pp 96-101, August 2013
5. "Vesicle photonics", Vasdekis A, Scott EA, Roke S, Hubbell JA, Psaltis D, Annual Review of Materials Research, Vol. 43, August 2013
6. "Multiple contrast metrics from the measurements of a digital confocal microscope" Goy A, Unser M, Psaltis D, Biomedical Optics Express, Vol. 4, pp 1091-1103, July 2013
7. "Optical-resolution photoacoustic microscopy by use of a multimode fiber", Papadopoulos IN, Simandous O, Farahi S, Huignard JP, Bossy E, Psaltis D, Moser C, Applied Physics Letters, Vol 102, Art 211106, May 2013
8. "Optofluidic tunable color filters and spectroscopy based on liquid-crystal microflows", Cuennet J, Vasdekis AE, Psaltis D, Lab on a chip, Vol 13, pp 2721-2726, May 2013
9. "Electrically tunable optofluidic light switch for reconfigurable solar lighting", Song WZ, Psaltis D, Lab on a Chip, Vol. 13, pp. 2708-2713, April 2013
10. "Two photon microscopy of the mouse cochlea in situ for cellular diagnosis", Yang X, Pu Y, Hsieh CL, Ong C, Psaltis D, Stankovich K, Journal of Biomedical Optics, Vol 3, Issue 3.,pp 31104, March 2013
11. "Seeing through turbidity with harmonic holography", Pu Y, Psaltis D, Applied Optics, Vol 52, pp 567-578, February 2013
12. "High-resolution, lensless endoscope based on digital scanning through a multimode optical fiber" Papadopoulos IN, Farahi S, Moser C, Psaltis D, Biomedical Optics Express, Vol 4, pp. 260-270, Jan. 2013

2012

- 1 "Imaging: the fog clears" Psaltis D, Papadopoulos IN, Nature, Vol. 491, pp. 197-198, November 2012
- 2 "Digital confocal microscope", Goy A, Psaltis D, Optics Express, Vol. 20, pp. 22720-22727, September 2012
- 3 "Precision intracellular delivery based on optofluidic polymersome rupture" Vasdekis AE, Evan S, O'Neil C, Psaltis D, Hubbell J, ACS Nano, Vol. 6, pp. 7850*7857, August 2012
- 4 "Holographic coherent anti-Stokes Raman scattering bio-imaging", Shi K, Edwards PS, Hu J, Xu Q, Wang Y, Psaltis D, Liu Z, Biomedical Optics Express, Vol. 3, pp. 1744-1749, July 2012
- 5 "Elastomer based tunable optofluidic devices", Song W, Vasdekis AE, Psaltis D, Lab on a Chip, Vol. 1, pp.3590-3597, June 2012
- 6 "Focusing and scanning light through a multimode optical fiber using digital phase conjugation" Papadopoulos IN, Farahi S, Moser C, Psaltis D, Optics Express, Vol. 20, pp. 10583-10590, April 2012
- 7 "Three-dimensional scanning microscopy through thin turbid media" Yang X, Hsieh CL, Pu Y, Psaltis D, Optics Express, Vol. 20, pp. 2500-2506, January 2012

2011

1. "Light modulation enabled by liquid crystal microflows," Cuennet JG, Vasdekis AE, De Sio L, Psaltis D, Nonlinear Optical Physics and Materials, Vol. 20, pp. 397-404, December 2011

2. "Optofluidic membrane interferometer: An imaging method for measuring microfluidic pressure and flow rate simultaneously on a chip" Song W, Psaltis D, *Biomicrofluidics*, November 2011
3. "Superoscillatory diffraction-free beams" Makris K, Psaltis D, *Optics Letters*, Vol. 36, pp. 4335-4337, November 2011
4. "Silicon oxide deposition for enhanced optical switching in polydimethylsiloxane-liquid crystal hybrids", De Sio L, Vasdekis AE, Cuennet JG, De Luca A, Pane A, Psaltis D, *Optics Express*, Vol. 19, pp. 23532-23537, November 2011
5. "Optofluidics for energy applications", Erickson D, Sinton D, Psaltis D, *Nature Photonics*, Vol. 5, pp. 583-590, October 2011
6. "Imaging with second-harmonic radiation probes in living tissue" Grange R, Lanvin T, Hsieh CL, Pu Y, Psaltis D, *Biomedical Optics Express*, Vol. 2, pp. 2532-2539, August 2011
7. "Pneumatically tunable optofluidic 2x2 switch for reconfigurable optical circuit" Song W, D Psaltis, *Lab on a chip*, Vol 11, pp2397-2402, May 2011
8. "Digital reverse propagation in focusing Kerr media" Goy A, Psaltis D – *Physical Review A*, A83, 031802 (R), March 2011
9. "Huygens-Fresnel diffraction and evanescent waves" Makris KG, Psaltis D – *Optics Communication*, Vol 284, pp. 1686-1689, March 2011
10. "Optofluidic modulator based on peristaltic nematogen microflows" J.G.Cuennet**, A.E. Vasdekis*, L. De Sio, Psaltis D. (*Equivalent first authors) – *Nature Photonics*, Vol5, pp 234-238, February 2011

2010

- 1 "Optofluidic pressure sensor based on interferometric imaging" Song W, Psaltis D. – *Optics Letter*, Vol 35, pp 3604-3606, October 2010
- 2 "Imaging through turbid layers by scanning the phase conjugated second harmonic radiation from a nanoparticle" Hsieh CL, Pu Y, Grange R, Laporte G., Psaltis D. – *Optics Express*, Vol 18, pp 20723-20731, September 2010
- 3 "Imaging based optofluidic air flow meter with polymer interferometers defined by soft lithography" Song W, Psaltis D – *Optics Express* – Vol18, pp. 16561-16566, August 2010
- 4 "Digital phase conjugation of second harmonic radiation emitted by nanoparticles in turbid media" Hsieh CL, Pu Y, Grange R, Psaltis D - *Optics Express*, Vol. 18, pp. 12283-12290, May 2010
- 5 "Second harmonic generation from nanocrystals under linearly and circularly polarized excitations" Hsieh CL, Pu Y, Grange R, Psaltis D - *Optics Express*, Vol. 18, pp. 11917-11932, May 2010
- 6 "Nonlinear optical properties of core-shell nanocavities for enhanced second-harmonic generation" Pu Y, Grange R, Hsieh CL, Psaltis D - *Physical Review Letters*, Vol. 104, Art. 207402, May 2010
- 7 "Inline holographic coherent anti-Stokes Raman microscopy" Xu Q, Shi K, Li H, Choi K, Horisaki R, Brady D, Psaltis D, Liu Z - *Optics Express*, Vol. 18, pp. 8213-8219, April 2010
- 8 "All-optical switching in an optofluidic PDMS - liquid crystal grating defined by cast-molding" De Sio L, Cuennet JG, Vasdekis AE, Psaltis D - *Applied Physics Letters*, Vol. 96, Art. 131112, April 2010
- 9 "Coherent anti-Stokes Raman holography for chemically selective single-shot non-scanning 3D imaging" Shi K, Li H, Xu Q, Psaltis D, Liu Z - *Physical Review Letters*, Vol. 104, Art. 093902, March 2010
- 10 "Microfluidic assays for DNA manipulation based on a block copolymer immobilization strategy" Vasdekis AE, O'Neil CP, Hubbell JA, Psaltis D - *Biomacromolecules*, Vol. 11, pp. 827-831, March 2010

- 11 "Bioconjugation of barium titanate nanocrystals with immunoglobulin G antibody for second harmonic radiation imaging probes" Hsieh CL, Grange R, Pu Y, Psaltis D - Biomaterials, Vol. 31, pp. 2272-2277, March 2010
- 12 "3-dimensional electrode patterning within a microfluidic channel using a metal ion implantation" Choi JW, Rosset S, Niklaus M, Adleman JR, Shea H, Psaltis D - Lab on a Chip, Vol. 10, pp. 783-788, March 2010
- 13 "Pneumatically tunable optofluidic dye laser" Song W, Psaltis D - Applied Physics Letters, Cover, Vol. 96, Art. 081101, February 2010

2009

1. "Heterogenous catalysis mediated by plasmon heating" Adleman JR, Boyd DA, Goodwin DG, Psaltis D - Nano Letters, Vol. 9, pp. 4417-4423, November 2009
2. "Electroactive micro and nanowells for optofluidic storage" Cordovez B, Psaltis D, Erickson D - Optics Express, Vol. 17, pp. 21134-21148, November 2009
3. "Lithium niobate nanowires: synthesis, optical properties and manipulation" Grange R, Choi JW, Hsieh CL, Pu Y, Magrez A, Smajda R, Forro L, Psaltis D - Applied Physics Letters, Vol. 95, Art. 143105, October 2009
4. "A multi-color fast-switching microfluidic droplet dye laser" Tang SKY, Li Z, Abate AR, Agresti JJ, Weitz DA, Psaltis D, Whitesides GM - Lab on a Chip, Vol. 9, pp. 2767-2771, August 2009
5. "Optofluidic evanescent dye laser based on a distributed feedback circular grating" Song W, Vasdekis AE, Li Z, Psaltis D - Applied Physics Letters, Vol. 94, Art. 161110, April 2009
6. "Three-dimensional harmonic holographic microcopy using nanoparticles as probes for cell imaging" Hsieh CL, Grange R, Pu Y, Psaltis D - Optics Express, Vol. 17, pp. 2880-2891, February 2009
7. "Low-order distributed feedback optofluidic dye laser with reduced threshold" Song W, Vasdekis AE, Li Z, Psaltis D - Applied Physics Letters, Vol. 94, Art. 051117, February 2009

2008

1. "Lensless high-resolution on-chip optofluidic microscopes for *Caenorhabditis elegans* and cell imaging" Cui XQ, Lee LM, Heng X, Zhong WW, Sternberg PW, Psaltis D, Yang CH - Proceedings of the National Academy of Sciences of the United States of America, Vol. 105, pp. 10670-10675, August 2008
2. "Chemical separations by bubble-assisted interphase mass-transfer" Boyd DA, Adleman JR, Goodwin DG, Psaltis D - Analytical Chemistry, Vol. 80, pp. 2452-2456, April 2008
3. "Optical phase conjugation for turbidity suppression in biological samples" Yaqoob Z, Psaltis D, Feld MS, Yang CH - Nature Photonics, Vol. 2, pp. 110-115, February 2008
4. "Harmonic holography: a new holographic principle" Pu Y, Centurion M, Psaltis D - Applied Optics, Vol. 47, pp. A103-A110, February 2008
5. "Magnifying perfect lens and superlens design by coordinate transformation" Tsang M, Psaltis D - Physical Review B, Vol. 77, Art. 035122, January 2008
6. "Optofluidic dye lasers" Li ZY, Psaltis D - Microfluidics and Nanofluidics, Vol. 4, pp. 145-158, January 2008

2007

1. "An optical tweezer actuated, nanoaperture-grid based Optofluidic Microscope implementation method" Heng X, Hsiao E, Psaltis D, Yang CH - Optics Express, Vol. 15, pp. 16367-16375, December 2007
2. "Theory of resonantly enhanced near-field imaging" Tsang M, Psaltis D - Optics Express, Vol. 15, pp. 11959-11970, September 2007

3. "Optical parametric generation in periodically poled KTiOP04 via extended phase matching" Pu Y, Wu J, Tsang M, Psaltis D - Applied Physics Letters, Vol. 91, Art. 131120, September 2007
4. "Nanoimprinted circular grating distributed feedback dye laser" Chen Y, Li Z, Zhang Z, Psaltis D, Scherer A - Applied Physics Letters, Vol. 91, Art. 051109, July 2007
5. "Trapping of dielectric particles with light-induced space-charge fields" Eggert HA, Kuhnert FY, Buse K, Adleman JR, Psaltis D - Applied Physics Letters, Vol. 90, Art. 241909, June 2007
6. "Modulational instability in nonlinearity-managed optical media" Centurion M, Porter MA, Pu Y, Kevrekidis PG, Frantzeskakis DJ, Psaltis D - Physical Review A, Vol. 75, Art. 063804, June 2007
7. "Optofluidic distributed feedback dye lasers" Li Z, Psaltis D - IEEE Journal of Selected Topics in Quantum Electronics, Vol. 13, pp. 185, March/April 2007
8. "Trapping and storage of particles in electroactive microwells" Cordovez B, Psaltis D, Erickson D - Applied Physics Letters, Vol. 90, Art. 024102, January 2007

2006

1. "Modulational instability in a layered Kerr medium: Theory and experiment" Centurion M, Porter MA, Pu Y, Kevrekidis PG, Frantzeskakis DJ, Psaltis D - Physical Review Letters, Vol. 97, Art. 234101, December 2006
2. "Slanted hole array beam profiler (SHARp)- a high-resolution portable beam profiler based on linear aperture array" Cui XQ, Heng X, Wu JG, Yaqoob Z, Scherer A, Psaltis D, Yang CH - Optics Letters, Vol. 31, pp. 3161-3163, November 2006
3. "Characterization of light collection through a subwavelength aperture from a point source" Heng X, Cui X, Knapp DW, Wu J, Yaqoob Z, McDowell EJ, Psaltis D, Yang CH - Optics Express, Vol. 14, pp. 10410-10425, October 2006
4. "Mechanically tunable optofluidic distributed feedback dye laser" Li Z, Zhang Z, Scherer A, Psaltis D - Optics Express, Vol. 14, pp. 10494-10499, October 2006
5. "Optical detection of asymmetric bacteria utilizing electro orientation" Choi JW, Pu A, Psaltis D - Optics Express, Vol. 14, pp. 9780-9785, October 2006
6. "Optofluidic microscopy-a method for implementing a high resolution optical microscope on a chip" Heng X, Erickson D, Bough LR, Yaqoob Z, Sternberg PW, Psaltis D, Yang CH - Lab on a Chip, No. 6, pp. 1274-1276, October 2006
7. "Holographic capture of femtosecond pulse propagation" Centurion M, Pu Y, Psaltis D - Journal of Applied Physics, Vol. 100, Art. 063104, September 2006
8. "Reflectionless evanescent-wave amplification by two dielectric planar waveguides" Tsang M, Psaltis D - Optics Letters, Vol. 31, pp. 2741-2743, September 2006
9. "Developing optofluidic technology through the fusion of microfluidics and optics" Psaltis D, Quake SR, Yang CH - Nature, Vol. 442, pp. 381-386, July 2006
10. "Nonlinearity management in optics: Experiment, theory, and simulation" Centurion M, Porter MA, Kevrekidis PG, Psaltis D - Physical Review Letters, Vol. 97, Art. 033903, July 2006
11. "Beam-width-dependent filtering properties of strong volume holographic gratings" Hsieh HT, Liu WH, Havermeier F, Moser C, Psaltis D - Applied Optics, Vol. 45, pp. 3774-3780, June 2006
12. "Holographic grating formation in a colloidal suspension of silver nanoparticles" Adleman JR, Eggert HA, Buse K, Psaltis D - Optics Letters, Vol. 31, pp. 447-449, February 2006
13. "Propagation of temporal entanglement" Tsang M, Psaltis D - Physical Review A, Vol. 73, Art. 013822, January 2006
14. "Nanofluidic tuning of photonic crystals circuits" Erickson D, Rockwood T, Emery T, Scherer A, Psaltis D - Optics Letters, Vol. 31, pp. 59-61, January 2006
15. "Single mode optofluidic distributed feedback dye laser" Li ZY, Zhang ZY, Emery T, Scherer A, Psaltis D - Optics Express, Vol. 14, pp. 696-701, January 2006

2005

1. "Diffraction from deformed volume holograms: perturbation theory approach" Tian K, Cuingnet T, Li Z, Liu W, Psaltis D, Barbastathis G - Journal of the Optical Society of America A, Vol. 22, pp. 2880-2889, December 2005
2. "Femtosecond holography in lithium niobate crystals" Hsieh HT, Psaltis D, Beyer O, Maxein D, von Korff Schmising C, Buse K, Sturman B - Optics Letters, Vol. 30, pp. 2233-2235, September 2005
3. "Self-organization of spatial solitons" Centurion M, Pu Y, Psaltis D - Optics Express, Vol. 13, pp. 6202-6211, August 2005
4. "Dynamics of filament formation in the Kerr medium" Centurion M, Pu Y, Tsang M, Psaltis D Physical Review A, Vol. 71, Art. 063811, June 2005
5. "Enhanced temporal resolution in femtosecond dynamic-grating experiments" Hsieh HT, Psaltis D, Beyer O, Maxein D, Buse K, Sturman B - Journal of Applied Physics, Vol. 97, Art. 113107, June 2005
6. "Holography in commercially available photoetchable glasses Koesters" M, Hsieh HT, Psaltis D, Buse K - Applied Optics, Vol. 44, pp 3399-3402, June 2005
7. "Femtosecond time-resolved absorption processes in lithium niobate crystals" Beyer O, Maxein D, Buse K, Sturman B, Hsieh HT, Psaltis D - Optics Letters, Vol. 30, pp. 1366-1368, June 2005
8. "Investigation of nonlinear absorption processes with femtosecond light pulses in lithium niobate crystals" Beyer O, Maxein D, Buse K, Sturman B, Hsieh HT, Psaltis D - Physical Review E, Vol. 71, Art. 056603, May 2005
9. "Spontaneous spectral phase conjugation for coincident frequency entanglement" Tsang M, Psaltis D - Physical Review A, Vol. 71, Art. 043806, April 2005

2004

1. "A microfluidic 2x2 optical switch," with K. Campbell, A. Groisman, U. Levy, L. Pang, S. Mookherjea and Y. Fainman Y, Applied Physics Letters, Vol. 95, No. 25, pp 6119-6121, December 2004.
2. "Spectral phase conjugation by quasi-phase-matched three wave mixing", with Mankei Tsang, Optics Communications, Vol. 242, No. 4-6, pp 659-664, December 8, 2004.
3. "Volume holographic grating-based continuously tunable optical filter", Havermeier F, Liu WH, Moser C, Psaltis D, Steckman GJ, Optical Engineering Vol. 43 No. 9 pp 2017-2021, Sep 2004.
4. "Imaging using volume volume holograms", Sinha A, Barbastathis G, Liu WH, Psaltis D, Optical Engineering, Vol. 43, No. 9, pp 1959-1972, Sep 2004.
5. "Liquid-crystal electric tuning of a photonic crystal laser", Maune B, Loncar M. Witzens J, Hochberg M, Baehr-Jones T, Psaltis D, Scherer A, Qui YM, Applied Physics Letters, Vol. 85, No. 3, pp 360-362, July 2004.
6. "Volume holographic hyperspectral imaging", Liu WH, Barbastathis G, Psaltis D, Applied Optics Vol. 43, No. 18, pp 3581-3599 June 2004.
7. "Spectral phase conjugation with cross-phase modulation compensation," with Mankei Tsang, Optics Express, Vol 12, No. 10, pp 2207-2210, May 2004.
8. "Holographic recording of laser-induced plasma," with Martin Centurion, Ye Pu and T W Haensch, Optics Letters, Vol 29, No. 7, pp 772-774, April 2004.
9. "Athermal Holographic Filters," with Hung-Te Hsieh, George Panotopoulos, M. Liger and Y-C Tai, IEEE Photonics Letters, Vol. 16, No. 1, pp. 177-179, Jan 2004.

2003

1. "Reverse propagation of femtosecond pulses in optical fibers," with Mankei Tsang, Optics Letters, Vol. 28 No. 20, pp 1873-1875, October 2003.

2. "Dispersion and nonlinearity compensation by spectral phase conjugation," with Mankei Tsang, Optics Letters, Vol 28, No. 17, pp 1558-1560, September 2003.
3. "Photorefractive properties of lithium niobate crystals doped with manganese," with Yunping Yang, JOSA-B, Vol. 20, No. 7, pp. 1491-1502, July 2003.
4. "Comparison of transmission and the 90-degree holographic recording geometry," with Yunping Yang, Ali Adibi, Applied Optics, Vol. 42, No. 17, pp. 3418-1427, June 10, 2003.
5. "Folded shift multiplexing," with Christophe Moser, Wenhai Liu, Yeshaiah Fainman, Optic Letters, Vol. 28, No. 11, pp. 899-901, June 1, 2003.

2002

1. "Coherent optical information systems," *SCIENCE* Vol. 298 pp. 1359-1-363, Cover photo November 2002.
2. "Spectroscopy, persistent hole burning and holographic applications of naphthophthathocyanine/haloanthracene systems," with R. S. Pandher, A. A. Gorokhosky, Z. Liu, I. Solomatine, Journal of Luminescence, Vol. 98 No. 1-4, pp. 207-212, July 2002.
3. "Temperature dependence of absorption in photorefractive iron-doped lithium niobate crystals," George Panotopoulos, Mark Luennemann and Karsten Buse, Applied Physics, Vol. 92, No. 2, pp. 793-796, July 15, 2002.
4. "Dark decay of holograms in photorefractive polymers", with Reinhard Bittner, Klaus Meerholz and Greg Steckman, Applied Physics Letters, Vol. 81, No. 2 July 8, 2002.
5. "Real-time spectral imaging in three spatial dimensions," with Wenhai Liu and George Barbastathis, Optics Letters, Vol.27, No. 10, pp. 854-856, May 15, 2002.
6. "Holographic recording of fast phenomena", with Zhiwen Liu and Greg Steckman, Applied Physics Letter, Vol. 80, No. 5, pp. 731-733. Feb 4, 2002.
7. "Photorefractive recording in LiNbO₃:Mn", with Yunping Yang and Karsten Buse, Optics Letters, Vol. 27, No. 3, pp. 158-160, Feb 1, 2002.
8. "Holographic recording of fast events on a CCD Camera", with Zhiwen Liu, Martin Centurion, and George Panotopoulos, Optics Letters, No. 27, No. 1, pp. 22-24, Jan 1, 2002.

2001

1. "System measure for persistence in holographic recording and application of singly-doped and doubly-doped lithium niobate", Applied Optics, Vol. 40, No. 29, pp. 5175-5182, October 2001.
2. "Holographic memory with localized recoding", with Christophe Moser, Applied Optics, Vol. 40, No. 23, pp. 3909-2914, Aug, 2001.
3. "Storage density of shift multiplexed holographic memory", with Gregory J. Steckman, and Allen Pu, Applied Optics, Vol. 40, No. 20, pp. 3387-3394, July 2001.
4. "Comparison of the recording dynamics of phenanthrenequinone-doped poly(methyl methacrylate) materials", with Jose Mumburu, Iouri Solomatine, Shiu-an Huei Lin, Ken Hsu, Wei-Zheng Chen and Wha Tzong Whang, Optics Communications, Vol. 194, pp. 103-108, July 2001.
5. "Ionic and electronic dark decay of holograms in LiNbO₃:Fe Crystals", with Yunping Yang, Ingo Nee and Karsten Buse, "Applied Physics Letters, Vol. 78, No. 26, pp. 4076-4078, June 2001.
6. "Two center holographic recording," with Ali Adibi and Karsten Buse, JOSA-A, Vol. 18, No. 5, pp. 584-601, May 2001.
7. "Measuring and modeling optical diffraction from sub-wavelength features", JOSA A Vol. 18, No. 3, pp. 565-572, March, 2001.
8. "Theoretical analysis of two-step holographic recording with high-intensity pulses", with Ali Adibi, and Karsten Buse, Physics Review A Vol.6302, No. 2, p. 3813, Feb 2001.

2000

1. "Liquid crystal blazed grating beam deflector", with Xu Wang, D. Wilson, and R. Muller, Applied Optics, Vol. 39, No. 35, pp. 6545-6555, December 2000.
2. "Holographic multiplexing in photorefractive polymers", Optics Communications, Vol. 185 No. 1-3 pp. 13-17, November 2000.
3. "Diffraction efficiency of localized holograms in doubly doped LiNbO₃ crystals", Optics Letters, Vol. 23, No. 17, pp. 234-249, September 2000.
4. "Holographic recording in photopolymer by optically induced detachment of chromophores", with Gregory J. Steckman, Vladimir Shelkovich, Victoria Bereshnaya, Tatiana Gerasimova and Iouri Solomatine, Optics Letters, Vol. 25, No. 9, pp. 607-609, May, 2000.
5. "The role of carrier mobility in holographic recording in LiNbO₃", with Ali Adibi and Karsten Buse, Applied Physics B Lasers, Vol. 72 No. 6, pp. 653 to 659, May 2001.
6. "Spectral hole burning in naphthalocyanines derivatives in the region 800 nm for holographic storage applications", with A. V. Turukhin, A. A. Gorokhovskiy, C. Moser and I. V. Solomatine, Journal of Luminescence, Vol. 86, pp. 399-405, April, 2000.
7. "Holographic read-only memory", with Gan Zhou and Fai Mok, Optical and Quantum Electronics, Vol. 32, No. 3, pp. 405-417, March, 2000.
8. "Localized holographic recording in doubly doped lithium niobate", with Christophe Moser and Benjamin Schupp, Optics Letters, Vol. 25, No. 3, Feb, 2000.
9. "Feasibility of interoperative topographic monitoring during excimer laser keratectomy", with Christophe Moser, Journal of Refractive Surgery, Vol. 16, pp. 148-154, March/April 2000.
10. "Sensitivity improvement in two-center holographic recording", Ali Adibi and Karsten Buse, Optics Letters, Vol. 25, No. 8, pp. 539-541, April, 2000.
11. "Holographic recording in photopolymer by optically induced detachment of chromophores", with Gregory J. Steckman, Vladimir Shelkovich, Victoria Bereshnaya, Tatiana Gerasimova and Iouri Solomatine, Optics Letters, Vol. 25, No. 9, pp. 607-609, May, 2000.
12. "Role of cerium in lithium niobate for holographic recording", with Xuefeng Yue, a. Adibi, T. Hudson and Karsten Buse, Journal of Applied Physics, Vol. 87, No. 9, pp. 4051-4055, May, 2000.

1999

1. "Nonvolatile holographic storage in doubly doped LiNbO₃", with Karsten Buse and Ali Adibi, JPL Technical Briefs, December 1999.
2. "Holographic random access memory (HRAM)", with Ernest Chuang, Wenhai Liu and Jean-Jacques Drolet, Invited Paper, Proc. of IEEE Special Issue, Vol. 87, No. 11, pp. 1931-1940, November, 1999.
3. "Pixel size limit in holographic memories", with Wenhai Liu, Optics Letters, Vol. 24, Issue 19, pp. 1340-1342, October 1999.
4. "Secondary grating formation by read-out at Bragg-null incidence", with Ali Adibi Jose Mumburu Kelvin Wagner, Applied Optics, Vol. 38, No. 20, pp. 4291-4295, July 10, 1999.
5. "Effect of annealing in two-center holographic recording", with Ali Adibi and Karsten Buse, Applied Physics Letters, Vol. 74, No. 25, pp. 3767-3769, June 21, 1999.
6. "Efficient non-volatile holographic recording in doubly doped lithium niobate", with Karsten Buse and Ali Adibi, Journal of Optics A, Pure and Applied Optics, Vol. 1, No. 2 pp. 237-238, March, 1999.
7. "Multiplexing holograms in LiNbO₃:Fe: Mn crystals", with Ali Adibi Karsten Buse, publication in Optics Letters, Vol. 24, No. 10, May 15, 1999.
8. "A method for controlling the shift invariance of optical correlators", with Michael Levene Gregory J. Steckman, Applied Optics, Vol. 38, No. 2, pp. 394-398, Jan 1999.
9. "Thermal fixing of 10,000 holograms in LiNbO₃:Fe", with Xin An and Geoffrey Burr, Applied Optics, Vol. 38, No. 2, pp. 386-393, Jan 1999.

1998

1. "Characterization of phenanthrenequinone doped PMMA for holographic memory", with Gregory Steckman, Iouri Solomatine and Gan Zhou, Optics Letters, Vol. 23, No. 16, pp. 1310-1312, Aug, 1998.
2. "Non-volatile holographic storage in doubly doped lithium niobate crystals", with K. Buse and Ali Adibi, Letters to Nature, Nature, Vol. 393, 18 June 1998.
3. "Liquid-crystal beam deflectors", with Xu Wang, SPIE's International Technical Working Group Newsletter Optical Processing and Computing, April 1998.
4. "Holographic data storage", with Geoffrey Burr, Computer Magazine Cover Article, Vol. 31, No. 2, pp. 52-59, Feb 1998.
5. "Capacity of two-layer networks with binary weights", with Chuanyi Ji, IEEE Transactions on Information Theory, Vol. 44, No. 1, pp. 256-268, Jan 1998.

1997

1. "Holographic memories", with Optics and Photonics News Cover Article, pp. 35-36, November 1997.
2. "Electrical fixing of 1000 angle multiplexed holograms in SBM:75", with Jian Ma, Tallis Chang, John Hong, Ratnaker Neurgaonker and George Barbastathis, Optics Letters, Vol. 22, No. 14, pp. 1116-1118, July 1997.
3. "Optical diffraction of focused spots and subwavelength structures", with David Marx, JOSA-A Vol 14, No. 6, pp. 1268-1278, June 1997.
4. "Storage of 1000 holograms with use of a dual wavelength method", with Ernest Chuang, Applied Optics, Vol. 36, No. 32, pp. 8445-8454, November 1997.
5. "Holographic data storage in a DX-Center Material", with I. R. Redmon, R. A. Linke and E. Chuang, Optics Letters, Vol. 22, No. 15, pp. 1189-1191, Aug 1997.
6. "Real-time vehicle navigation using a holographic memory", with Allen and Robert Denkwalter, Optical Engineering, Vol. 36, No. 10, pp. 2737-2746, October 1997.
7. "Polarization quadrature measurement of Subwavelength Diffracting Structures", with D. S. Marx, Applied Optics, Vol. 36, No. 25, pp. 6434-6440, September 1997.
8. "Network synthesis through data drive growth and decay", with Chuanyi Ji, Neural Networks, Vol. 10, No. 6, pp. 1133-1141, Aug 1997.
9. "Monolithic integration of SEEDs and VLSI GAAs circuits by epitaxy on electronics", with H. Wang, J. Luo, K. V. Shenoy, Y. Royuter and C. Fonstad, IEEE Photonics Technology Letters, Vol. 9, No. 5, pp. 607-609, May 1997.
10. "Compact, integrated dynamic holographic memory with refreshed holograms", with Jean-Jacques Drolet, Ernest Chuang and George Barbastathis, Optics Letters, Vol. 22, No. 8, pp. 552-554, April 1997.

1996

1. "User identification through sequential fingerprint input", with Allen Pu, SPIE International Technical Working Group Newsletter, Vol. 7, No. 2 pp. 1, 7. November 1996.
2. "Exposure schedule for multiplexing holograms in photopolymer films", with Allen Pu and Kevin Curtis, Optical Engineering, Vol. 35, No. 10 pp. 2824-2829, October 1996.
3. "Effect of the oxidation state of LiNbO₃:Fe on the diffraction efficiency of multiple holograms", with Geoffrey W. Burr, Optics Letters, Vol. 21, No. 12, pp. 893-895 June 1996.
4. "System metric for holographic memory systems", with Fai Mok and Geoffrey W. Burr, Optics Letters, Vol. 21, No. 12, pp. 896-898, June 1996.

5. "Shift multiplexing with spherical reference waves", with George Barbastathis and Michael Levene, Applied Optics, Optical Memory Feature Issue, Vol. 35, No. 14, pp. 2403-2417, May 1996.
6. "High density recording in photopolymer-based holographic 3-D disks", with Allen Pu, Applied Optics, Optical Memory Feature Issue, Vol. 35, No. 14, pp. 2389-2398, May 1996.
7. "Optical memory", with Mark Neifeld, L. Hesselink, Applied Optics, Vol. 35, No. 14, p. 2345, May 1996.
8. "Dense holographic storage promises fast access", with John Hong, Laser Focus World, Vol. 32, No. 4, pp. 119-124 April 1996.
9. "Shift-multiplexed holographic memory using the two-lambda method", with George Barbastathis, Optics Letters, Vol.21, No. 6, pp 432-434, March 1996.
10. "Holographic storage media could eclipse optical disks", with Fai Mok, Signal Magazine Feb 1996.

1995

1. "Holographic memories", with Fai Mok, Scientific American Cover Article, November 1995.
2. "Holographic 3-D Disks", with Allen Pu, Invited Paper Optoelectronics-Devices and Technologies, Vol. 10, No. 13, pp. 333-342, September 1995.
3. "Hybrid-aligned nematic liquid crystal modulators fabricated on VLSI circuits", with Jean-Jacques Drolet, Jay S. Patel, Konstantinos G. Haritos, Xeihua Xi and Axel Scherer, Optics Letters, Vol. 20, No. 21, pp. 2222-2224, November 1995.
4. "High-density storage in holographic 3D disks", with Allen Pu, Invited Paper, Proc., SPIE, High Density Data Recording and Retrieval Technologies Conference, Vol. 2604, pp. 15-17, Philadelphia, PA. October 1995.
5. "Experimental characterization of an angle-multiplexed holographic memory", with Xin An, Optics Letters, Vol. 20, No. 18, pp. 1913-1915, September 1995.
6. "Alignment sensitivity of holographic three-dimensional disks", with Hsin-Yu Sidney Li, JOSA-A, Vol. 12, No. 9, pp. 1902-1912, September, 1995.
7. "High responsivity optical FETs fabricated on a FET-Seed structure", with Jiafu Luo and Annette Grot, IEEE Photonics Technology Letters, Vol. 7, No. 7, pp. 760-762, July, 1995.

1994

1. "Method for holographic storage using peristrophic multiplexing", with Kevin Curtis and Allen Pu, Optics Letters, Vol. 19, No. 13, pp. 993-994, July 1994.
2. "Integration of LED's and GaAs circuit by MBE regrowth", with A. C. Grot, K. V. Shenoy and C. G. Fonstad, Jr., IEEE Photonics Technology Letters, Vol. 6, No. 7, p. 819-821, July 1994.
3. "Three-dimensional holographic disks", with Hsin-Yu Sidney Li, Applied Optics, Vol. 33, No. 17, p. 3764-3774, 10 June 1994.
4. "On the finite sample performance of the nearest neighbor classifier", with Robert Snap and Santosh S.Venkatesh, IEEE Transaction on Information Theory Vol 40, No. 3, p. 820-837, May 1994.
5. "Pit depth encoded memories", with David S. Marx and Gabriel Sirat, Proc. Optical Data Storage Topical Meeting, Vol. 2338, pp. 65-66, Dana Point, CA, May 1994.
6. "Non-volatile storage in photorefractive crystals", with Fai H.Mok and H. S. Li, Optics Letters, Vol. 19, No. 3, pp. 210-212, Feb, 1994.
7. "Spatial and temporal characteristics of electrically fixed holograms in photorefractive strontium-barium niobate", with Sergei Orlov and Ratnaker R. Neurgaonkar, Applied Physics Letters, Vol. 64, No. 7, pp. 824-826, Feb, 1994.

1993

1. "Electrical fixing of photorefractive holograms in SBN:75", with Yong Qiao Sergei Orlov and R. R. Neurgaonkar, Optics Letters, Vol. 18, No. 12, p. 1004, 1993.
2. "Crosstalk in phase coded holographic memories", with Kevin Curtis, Journal of the Optical Society of America A, Vol. 10, No., 12, p. 2547-2250, December 1993.
3. "Dynamic electronic compensation of fixed gratings in photorefractive media", with Sergei Orlov and Ratnaker R. Neugaonkar, Applied Physics Letters, Vol. 63, No. 18, p. 2466-2468, November 1993.
4. "Optical network for real time face recognition", with Sidney Li and Yong Qiao, Applied Optics, Vol. 32, No. 26, September, 1993.
5. "Programmable image associative memory using an optical disk", with Mark Neifeld, Applied Optics, Vol. 32, No. 23, p. 4398-4409, Aug 1993.
6. "Crosstalk inwavelength multiplexed holographic memories", with Kevin Curtis and Claire Gu, Optics Letters, Vol.18 No. 12, pp. 1001-1003, June 1993.
7. "Optical multilayer networks", with Hsin-Yu Sidney Li and Yong Qiao, Optoelectronic Devices and Technologies, Vol. 8, No. 1 pp. 11-20, March 1993.
8. "Photorefractive holographic memories with dynamic coping", with Yong Qiao, International Journal of Optical Computing, Vol. 2, pp. 185-199, 1993.
9. "Correlation filters for aircraft identificatin from radar range profiles", with Scott Hudson, IEEE Transactions on Aerospace and Electronic Systems, Vol. 29, No. 3, pp. 741-748, July 1993.
10. "Information capacity of 3-D Holographic data storage", with David Brady, Optical and Quantum Electronics 25, p. S597-S610, March 1993.
11. "Optical implementation of radial bias classifiers", with Mark Neifeld, Applied Optics, Vol. 32, No. 08, pp. 1370-1379, 10 March 1993.
12. "GaAs optoelectronic neuron arrays", with Steve Lin, Annette Grot and Jiafu Luo, Applied Optics, Vol. 32, No. 8, pp. 1275-1289, 10 March 1993.

1992

1. "Recording of multiple holograms in photopolymer films", with Kevin Curtis, Applied Optics, Vol. 31, No. 35, pp. 7425-7428, 10 December 1992.
2. "Sampled dynamic holographic memory", with Yong Qiao, Optics Letters, Vol. 17, No. 19, pp. 1376-1378, October 1, 1992.
3. "Parallel optical memories", Byte pp. 179-182, September 1992.
4. "Local learning algorithm for Algorithm for optical neural networks", with Yong Qiao, Applied Optics, Vol. 31, No. 17, pp. 3285-3288, 10 June 1992.
5. "Double grating formation in anisotropic photorefractive crystals", with Hsin-Yu Li, Journal of Applied Physics, Vol. 71(3), pp. 1394-1400, 1 Feb 1992.
6. "Control of volume holograms", with David Brady, Journal of the Optical Society of America - A, Vol. 9, no.7, pp. 1167-1182, July 1992.

1991

1. "Phase-locked sustainment of photorefractive holograms using phase conjugation", with Y. Qiao, C. Gu, J. Hong, P. Yeh and R.Neurgaonkar, Journal of Applied Physics, Vol. 70, No. 8, 15 October 1991.
2. "Acousto-optic signal processors for reception of phased array signal processors", with N. Riza, Applied Optics, Vol. 30, No. 23, p. 3294, 10 Aug 1991.
3. "Holographic interconnections in photorefractive waveguides", with David J. Brady, Applied Optics, Vol.30, No. 17, p. 2324, 10 June 1991.
4. "Dynamics of grating formation in photovoltaic media", with C. Gu, J. Hong, H. Li and P. Yeh, Journal of Applied Physics, Vol.69, No. 3, p. 1167, Feb 1, 1991.

5. "Optical disk based artificial neural systems", with A.Yamamura, M. Neifeld and S. Kobayashi, Optical Computing and Processing, Vol. 1, 1, pp. 3-12, Jan-Mar, 1991.

1990

1. "Optical neural networks", with Yong Qiao, Optics and Photonics News, Vol. 1, No. 12, p. 17, December 1990.
2. "Generalizing smoothness constraints from discrete samples", with R. Snapp and C. Ji, Neural Computations Vol. 2, pp. 188-197, 1990.
3. "Diffraction efficiency of strong volume holograms", with J. Hong, P. Yeh and D. Brady, Optics Letters, Vol. 15, No. 6, March 15, 1990.
4. "Optoelectronic integrated circuits for neural networks", with J. Katz, J. Kim, S. Lin and A. Nouhi, NASA Technical Briefs, Vol. 14, NO. 5, p.28, May, 1990.
5. "Optical memory disks in optical information processing", with M. Neifeld, A. Yamamura and S. Kobayashi, Applied Optics, Vol. 26, No.14, 10 May 1990.
6. "Holographic implementation of a fully connected neural network", with K. Hsu and H. Li, Proc. of IEEE Special Issue On Neural Networks, Vol.78, No.10, Oct. 1990.
7. "Holography in artificial neural networks", with D. Brady, C. Gu and S. Lin, Invited Review Article In Nature, Vol. 343, No.6256, p. 325, Jan 25, 1990.
8. "Periodically refreshed multiply exposed photorefractive holograms", with David Brady and Ken Hsu, Optics Letters, Vol. 15, No.14, July 15, 1990.
9. "Shaping attraction basins in neural networks", with Santosh Venkatesh, V. Pancha and Gabriel Sirat, Neural Networks, Vol.3, p. 613, 1990.

1989

1. "Optoelectronic implementations of neural Networks", with A. Yamamura, K. Hsu, S. Lin, C. Gu and D. Brady, IEEE Communications Magazine, Vol.27, no. 11, November, 1989.
2. "Image correlators using optical memory disks", with Mark Neifeld and Alan Yamamura, Optics Letters, Vol.14, No.9, May 1989.
3. "Volume holographic interconnections with maximal capacity and minimal cross talk", with Lee and Gu, Journal of Applied Physics, Vol.65, p. 2191, April 1989.
4. "Binary filters for pattern classification", with Santosh Venkatesh, IEEE Transaction on Acoustics Speech and Signal Processing, ASSP-37, No. 4, p. 604, April 1989.

1988

1. "Interference filters as nonlinear decision-making elements for pattern recognition and associative memories", with Wang, Feinlieb, Zhang, Jin, Chou, Sprague, Macleod, Khitrova, Gibbs and Wagner, Applied Optics, Vol. 27, p. 1786, May 1, 1988.
2. "Real-time programmable acoustooptic synthetic aperture radar processor", with Michael Haney, Applied Optics, Vol. 27, p. 1786, May 1, 1988.
3. "Adaptive optical networks using photorefractive crystals", with David Brady and Kelvin Wagner, Applied Optics, Vol.27, p. 1752, May 1, 1988.
4. "Higher order associative memories and their optical implementations", with Cheol Hoon Park and John Hong, Neural Networks, Vol.1, No.2, pg.149, 1988.
5. "A multilayered neural network controller", with Athanasios Sideris and Alan Yamamura, IEEE Control Systems Magazine p. 17, April, 1988.
6. "Conoscopic holograms", with Gabriel Sirat, Optics Communications, Vol. 65, p. 243, Feb 15, 1988.

1987

1. "Multilayer optical learning networks", with Kelvin Wagner, Applied Optics, Vol.26, p. 5061, December 1, 1987.
2. "Photorefractive acousto-electro-optic correlator", with Hyuk Lee, Optics Letters, Vol.12, p. 459, July, 1987.
3. "Optical associative memory using fourier transforms holograms", with Eung Gi Paek, Optical Engineering, Vol.26, p. 428, May 1987.
4. "Optical neural computers", with Yaser S. Abu-Mostafa, Scientific American, Vol.255, p. 88, March 1987.
5. "Shift-invariant optical associative memories", with John Hong, Optical Engineering, Vol.16, p. 10, Jan 1987.
- 6.

1986

1. "Storage capacity of holographic associative memories", with John Hong, Optics Letters, Vol.11, p. 812, December 1986
2. "Real-time computer-generated holograms by means of liquid-crystal television spatial light modulator", with Fai Mok, Joseph Diep and Hua -Kuang Liu, Optics Letters, Vol.11, p. 748, November, 1986.
3. "High accuracy computation with linear analog optical systems: A Critical Study", with Ravindra Athale, Applied Optics, Vol.25, p3071, September, 1986.
4. "The optical computing process: Revolutionary or Evolutionary?", Optics News, p. 24, April 1986.

1985

1. "Bias-free time-integrating optical correlator using a photorefractive crystal", with Jeffrey Yu and John Hong, Applied Optics, Vol. 24, p. 3860, November 1985.
2. "Optical implementation of the Hopfield model", with Nabil Farhat, Aluizio Prata and Eungi Paek, Applied Optics, Vol.24, p. 1469, May 1985.
3. "Measurement of the temporal coherence properties of pulsed single-mode laser diodes", with Michael Haney, Applied Optics, Vol. 24, p. 1926, July 1985.
4. "Point simulator for Synthetic-Aperture Radar", NASA Technical Briefs, Vol.9, No.2, p. 62, Summer 1985.
5. "Acousto-electro-optic light modulation", with Hyuk Lee and Gabriel Sirat, Applied Physics Letters, Vol. 46, p. 215, Feb, 1985.
6. "Image normalization by complex moments", with Yaser S. Abu-Mostafa, IEEE Transaction on Pattern Analysis and Machine Intelligence, Vol. PAMI-7, Jan 1985.
7. "Physical characterization of the photorefractive incoherent to coherent optical converter", with A. Marrakchi, A. R. Tanguay, Jr. and J. Yu, Optical Engineering Jan/Feb, 1985.
8. "Optical information processing based on an associative-memory model of neural networks with thresholding and feedback", with Nabil Farhat, Optics Letters, Vol.10, p. 98, Jan 1985.
9. "Conoscopic holography", with Gabriel Sirat, Optics Letters, Vol.10, p. 4, Jan 1985.

1984

1. "A space integrating acousto-optic matrix-matrix multiplier", with Kelvin Wagner, Optics Communications, Vol.52, p. 173, December 1984.
2. "Optical image correlation with a binary spatial light modulator", with Eung Gi Paek and Santosh Venkatesh, Optical Engineering, Vol.23, p. 698, November 1984.
3. "Recognitive aspects of moment invariants", with Yaser Abu-Mostafa, IEEE Trans. On Pattern Analysis and Machine Intelligence, Vol. PAMI-6, p. 698, November 1984.

4. "Adaptive acousto-optic filter", with John Hong, Applied Optics, Vol. 23, p. 3475, October 1, 1984.
5. "Two dimensional optical processing Using One Dimensional Input Devices", Proceedings of IEEE July, 1984.
6. "Incoherent electro-optic image correlator", Optical Engineering, Vol.23, p. 12, Jan, 1984.

1983

1. "Two-dimensional magneto-optic spatial light modulator for signal processing", with William Ross and Robert Anderson, Optical Engineering, Vol.22, p. 485, July/Aug 1983.
2. "Image normalization by complex moments", with Yaser S. Abu-Mostafa, IEEE Conference on Computer Vision and Pattern Recognition p. 114, June 1983.
3. "Tracking antenna arrays for near-millimeter waves", with Peter Tong, D. Keikirk, D. Rutledge, K. Wagner and P. Young, IEEE Trans. On Antennas and Propagation, Vol. aP-31, p. 512, May 1983.

1982

1. "Real time optical Synthetic Aperture Radar", with Kelvin Wagner, Optical Engineering, Vol. 21, p. 822, September/December 1982.
2. "Optical image correlation using acousto-optics and charge-coupled devices", Applied Optics, Vol.21, p. 491, Feb 1, 1982.

1981

1. "Acousto-optic spectral estimation: A Statistical Analysis", with B. V. K. Vijaya Kumar, Applied Optics, Vol.20, p. 601, Feb 15, 1981.
2. "Acousto-Optic Processing of Two-Dimensional Signals", J. Opt. Soc. Am., Vol.71, p. 198, Feb 1981
3. "Decimal/Residue conversion by time-integrating correlation", with Frank Caimi, David Casasent and Anastasios Goutzoulis, Optics Communications, Vol.36, p. 178, Feb 1981.

1980

1. "Hybrid processor to compute invariant moments for pattern recognition", with David Casasent, Optics Letters, Vol.5, p. 395, September, 1980.
2. "Optical fourier transform techniques for advanced fourier spectroscopy systems", with David Casasent, Applied Optics, Vol.19, p2034, June 15, 1980.
3. "Spread spectrum time and space integrated optical processor", with David Casasent, Applied Optics, Vol.19, p. 1546, May 1, 1980.
4. "General formulation for optical signal processing architectures", with David Casasent, Proc. Optical Engineering, Vol. 19, p. 193, March/April 1980.

1979

1. "Iterative color-multiplexed, electro-optical processor", with David Casasent and Mark Carlotto, Optics Letters, Vol.,4, p. 248, November 1979.
2. "Time-and-space integrating spectrum analyzer", with David Casasent, Applied Optics, Vol . 18, p. 3203, October 1, 1979.
3. "Space-variant ambiguity function processor", with David Casasent, Applied Optics, Vol. 18, p. 1869, June 1, 1979.

4. "Optical residue arithmetic: A Correlation Approach", with David Casasent, Applied Optics, Vol. 18, p. 163, Jan 15, 1979.
5. "Waveform considerations in space variant optical processors", with David Casasent, Optics Letters, Vol. 4, p. 18, Jan, 1979.

1978

1. "Decimal/Residue/Decimal optical converters", with David Casasent, Optics Communications, Vol.27, p. 317, December 1978.
2. "Implementation of the Inverse Radon Transform by Optical Convolution", with M. Nishimura, Frank Caimi and David Casasent, Optics Communications, Vol. 25, p. 301, June 1978.
3. "Phase determination of an amplitude modulated complex wavefront", with David Casasent, Applied Optics, Vol. 17, p. 1136, April 1, 1978.
4. "Multiple-invariant space-variant optical processors", with David Casasent, Applied Optics, Vol. 17, p. 655, Feb 15, 1978.

1977

1. "Accuracy and space bandwidth in space variant optical correlations", with David Casasent, Optics Communications, Vol. 23, p. 209, Nov., 1977.
2. "Deformation invariant optical processors using coordinate transformations", with David Casasent, Applied Optics, Vol. 16, p. 288, Aug., 1977.
3. "Space-bandwidth product and accuracy of the Optical Mellin Transform", with David Casasent, Applied Optics, Vol., 16, p. 1472, June, 1977.
4. "Optical correlation of functions distorted as $f(\chi') = f(\chi^\alpha)$ ", with David Casasent, Optics Communications, Vol. 21, p. 307, May, 1977.

1976

1. "Doppler signal processing: a New Technique", with David Casasent, Applied Optics, Vol. 15, p. 2015, Sep., 1975.
2. "Position, rotation, and scale invariant optical correlation", with David Casasent, Applied Optics, Vol. 15, p. 1793, July, 1976.
3. "Scale invariant optical transform", with David Casasent, Optical Engineering, Vol. 15, p.258, May-June, 1976.
4. "Scale invariant optical correlation using Mellin Transforms", with David Casasent, Optics Communications, Vol. 17, p.59, April, 1976.

BOOK CHAPTERS AND OTHER PUBLICATIONS

1. "Harmonic Holography" Ye Pu, Chia-Lung Hsieh and Rachel Grange – *Chapter in Advances in Imaging and Electron physics*, Vol. 160, Peter W. Hawke, Editor Elsevier, 2010
2. "Optofluidics: Fundamentals, Devices and Applications" Yeshaiahu Fainman, Luke Lee, Demetri Psaltis and Changhuei Yang, *Eds McGraw-Hill*, 2009
3. "Optofluidics: Optofluidics enhances cytometry" Yang CH, Erickson D, Psaltis D - *BioOptics World*, Vol. 2, January 2009
4. "Optofluidics emerges from the laboratory" Erickson D, Yang CH, Psaltis D - *Photonics Spectra*, Vol. 42, pp. 74-+, February 2008
5. "Coupled resonator optical near-field lithography" Tsang M, Psaltis D - *arXiv*, April 2008
6. "Metaphoric optical computing of fluid dynamics" Tsang M, Psaltis D - *arXiv*, February 2008

7. "Optofluidics reinvents the microscope" Yang CH, Heng X, Psaltis D - *Laser Focus World*, Vol. 42, pp. 83-+, December 2006
8. "Optofluidics can create small, cheap biophotonic devices" Yang CH, Psaltis D - *Laser Focus World*, Vol 42, pp. 85-88, July 2006
9. "Holographic Filters", with Karsten Buse, F. Havermeyer, Wenhai Liu, Chapter *Photorefractive Materials and their Applications*, 2005.
10. "Compact holographic memory module", with Ernest Chuang, Jean-Jacques Drolet and Wenhai Liu, Chapter 12, *Photorefractive Optics: Properties and Applications*, pp. 361-383, 1999.
11. "Holographic 3D disks using shift multiplexing", with George Barbastathis and Michael Levene, Chapter 10 *Trends in Optics Research Development and Applications*, Vol. 13, pp. 189-296, 1997.
12. "Applications of photorefractive crystals for optical neural networks", with John Hong and Hsin Yu Li Optical Storage and Retrieval Memory, Chapter 6, *Neural Networks and Fractals*, pp 173-203, 1996.
13. "Adaptive multi-layer optical networks", with Yong Qiao, Chapter IV, *Progress in Optics XXXI*, E. Wolf, editor, Elsevier Science, 1993.
14. "Photorefractive adaptive neural networks", with John Hong, Chapter 6, *Contemporary Nonlinear Optics*, G. Agrawal and R. Boyd, editors, Academic Press, San Diego, 1992.
15. "Holographic implementation of Neural Networks", with Claire Gu and David Brady, Chapter 17 *An Introduction to Neural and Electronic Networks*, Zornetzer, et.al Editors, p.339, Academic Press, San Diego, 1990.
16. "Perceptron Learning in Optical Neural Computers", with David Brady, Chapter, *Optical Computing*, Wherrett And Tooley Editors, p. 251, Scottish Universities Summer School In Physics, Edinburgh, 1989.
17. "Optical Associative Memory", with Ken Hsu, Chapter, *Nonlinear Optics And Optical Computing*, Martelucci And Chester Editors, p.159, Plenum Press, New York, 1990.
18. "Optical Implementation in Neural Computers", with David Brady, Claire Gu and Ken Hsu, Chapter 8, *Optical Processing And Computing*, p.251, H.H. Arsenault Editor, Academic Press, 1989.
19. "Linear and Logarithmic Capacities in Associative Neural Networks", with Santosh Venkatesh, IEEE Transactions On Information Theory, IT5, No. 3, p.558, May, 1989.
20. "Holographic Implementation of Neural Networks", with Claire Gu and David Brady, Chapter 17, *Introduction To Neural And Electronic Networks*, Zornetzer Et Al. Editors, p.339, Academic Press 1990.
21. "The Photorefractive Incoherent-to-Coherent Optical Converter", with Jeff Yu, A. Tanguay and R. Johnson, Chapter, *Photorefractive Materials And Their Applications*, Opgunter And Huignard Eds., p.275, Springer-Verlag, 1989.
22. "Experimental Demonstrations of Optical Neural Computers", with Ken Hsu and David Brady, Proc. Neural Information Processing Systems D. Anderson, Editor, p.377, AIP, New York, 1988.
23. "Information Storage in Fully Connected Networks", with Santosh Venkatesh, Chapter *Evolution Learning and Cognition*, Y. C. IEE editor, p.51, World Scientific, 1988.
24. "Acoustooptic Synthetic Aperture Radar Processors", with Michael Haney, Chapter, in *Optical Signal Processing*, Horner editor, p. 191, Academic Press, 1987.
25. "Optical Implementation of Associative Memory Based on Models of Associative Memory", with Nabil Farhat, Chapter in *Optical Signal Processing*, Horner, Editor, p. 129, Academic Press, 1987.
26. "Nonlinear Discriminant Functions and Associative Memories", with Cheol Hoon Park, Neural Networks for Computing APS Conference Proc. No. 151, Snowbird, UT, 1986.
27. "Threshold Device Tolerance Requirements in Digital Optical Computers", with Kelvin Wagner and Robert Weverka, *Optical Bistability II* Et. Al. EDS., Springer Verlag, Berlin, Germany, 1986, p.16.
28. "Nonlinear Optical Associative Memories", *Optical Bistability II* H. Gibbs Et. Al EDS, Springer-Verlag, p. 4, Berlin, Germany, 1986.
29. "Deformation Invariant, Space-Variant Optical Pattern Recognition", with David Casasent, Chapter 5, in *Progress in Optics*, E. Wolf, Editor, North Holland Pub., 1978.

CONFERENCE PROCEEDINGS

1. "Learning the 3D shape of objects from examples"; D.Psaltis; Computational Imaging III 10669, 1066902, 2018
2. "Ultra-High Efficient, Autonomous, Solar-Powered Chlorine Generators"; E. Chinello, MA. Modestino, L. Coulot, M. Ackermann, F. Gerlich, D. Psaltis; Meeting Abstracts, 1821-1821, 2018
3. "Optofluidics of plants; Lessons from biology"; D. Psaltis; Photonic and Phononic Properties of Engineered Nanostructures VIII 10541, paper 1054102, 2018
4. "Endoscopic light delivery for advanced manufacturing"; C. Moser, P. Delrot, D. Loterie, G. Konstantinou, E. Kakkava, D. Psaltis; Advanced Fabrication Technologies for Micro/Nano Optics and Photonics XI, 10544, paper 1054408, 2018
5. "Image Transmission through Multi-mode Fibers"; D. Psaltis; Optical Fiber Communication Conference, paper W4J, 1, 2018
6. "Imaging complex objects using learning tomography"; JW. Lim, A. Goy, MH. Shoreh, M. Unser, D. Psaltis; Quantitative Phase Imaging IV 10503, 105031T, 2018
7. "Wavefront shaping for ultrashort pulse delivery through optical fibers for imaging and ablation"; E. Kakkava, DB. Conkey, N. Stasio, D. Loterie, C. Moser, D. Psaltis; Adaptive Optic and Wavefront Control for Biological Systems IV 10502, 105021B, 2018
8. "Integrated platform for multi-resolution additive manufacturing"; P Delrot, D Loterie, D Psaltis, C Moser; International Conference on Additive Manufacturing in Products and Applications – AMPA2017 – Springer, Cham
9. "Coherence-domain imaging with harmonic holography"; Y Pu, D Psaltis; Proc. SPIE 10380, Ultrafast nonlinear Imaging and Spectroscopy V, 10380, 1038011, 2017
10. "Femtosecond pulse delivery through mutli-core fibers for imaging and ablation"; E Kakkava, N Stasio, DB Conkey, C Moser, D Psaltis; Proc. SPIE 10380, Ultrafast Nonlinear Imaging and Spectroscopy V, 10380, 103800U, 2017
11. "Adaptive optical networks for image recognition"; D Psaltis, Y Qiao, SS Orlov; Proc. SPIE 10270, Photorefractive Materials, Effects, and Applications: A Critical Review, 102700B-102700B-15, 2017
12. "Imaging cell clusters and tissue using learning tomography"; MH Shoreh, A Goy, J Lim, U Kamilov, M Unser, D Psaltis; Optical Methods for Inspection, Characterization and Imaging of Biomaterials III, 10333, p1033306, 2017
13. "Imaging and pattern projection through multicore fibers using the memory effect"; N Stasio, DB Conkey, C Moser, D Psaltis; Proc. SPIE 10335, Digital Optical Technologies 2017, 10335, 103351A, 2017
14. "Assessment of the advantages of learning tomography over conventional linear optical tomography", JW Lim, A Goy, D Psaltis; 2017 European Conference on Lasers and Electro-Optics and European Quantum Electronics Conference, OSA 2017, paper JSII_1_4
15. "Solar-vapor generation with 69% energy conversion efficiency in hollow-mesoporous plasmonic nanoshells"; Y Pu, MS Zielinsky, JW Choi, T La Grange, M Modestino, SMH Hashemi, S Birkhold, JA Hubbell, D Psaltis; 2017 European Conference on Lasers and Electro-Optics and European Quantum Electronics Conference; OSA 2017, paper EH_9_6
16. "Ultrashort pulse laser ablation through a multi-core fiber"; E Kakkava, DB Conkey, T Lanvin, D Loterie, N Stasio, E Morales-Delgado, C Moser, D Psaltis; 2017 European Conference on Lasers and Electro-Optics and European Quantum Electronics Conference; OSA 2017, paper CF_12_3
17. "Comparative study on learning tomography and conventional diffraction tomography"; JW Lim, A Goy, D Psaltis; Digital Holography and Three-Dimensional Imaging, OSA Technical Digest (online), OSA 2017, paper Th3A.7.
18. "Optical Tomogrphay based on a nonlinear model that handles multiple scattering"; MH Shoreh, A Goy, JW Lim, U Kamilov, M Unser, D Psaltis; 2017 IEE International Conference on Accoustics, Speech and Signal Processing (ICASSP), New Orleans USA, 5-9 March, 2017
19. "Imaging using the memory effect in multi-core fibers"; D Psaltis, N Stasio, DB Conkey, C Moser; SPIE OPTO, 101120N-101120N-1, 2017

20. "Overcoming the resolution limit in retinal imaging using the scattering properties of the sclera"; D. Carpentras, T. Laforest, D. Psaltis and C. Moser; Conference on Adaptive Optics and Wavefront Control for Biological Systems II, San Francisco, CA, Proceeding of SPIE, 2016
21. "Focusing and scanning of femtosecond pulses through a multimode fiber: applications in two-photon imaging and polymerization"; E.E.M. Delgado, D. Psaltis, C. Moser; Australian Conference on Optical Fibre Technology, AT5C.1, 2016
22. "The memory effect in multicore fibers"; N. Stasio, D. Conkey, C. Moser, D. Psaltis; Imaging Systems and Application, ITh1F. 1, 2016
23. "Towards the development of practical solar-fuel devices: silicon-based solar-hydrogen generators with 14.2% solar-to-hydrogen efficiency"; M.A. Modestino, J.W. Schüttauf, E.Chinello, C.A. Rodriguez, D. Lambelet, A. Delfino, D. Dominé, A. Faes, M. Despeisse, J. Bailat, C. Ballif, D. Psaltis, C. Moser; The Electrochemical Society, Meeting Abstracts, 2016.
24. "Second-harmonic radiating imaging probes and harmonic holography"; Y. Pu, D. Psaltis; SPIE Optics + Engineering Applications, 2016.
25. « Confocal microscopy via multimode fibers: fluorescence bandwidth » ; D. Loterie, D. Psaltis, C. Moser ; SPIE BIOS, 2016
26. « Two-photon fluorescence imaging through multicore fiber with digital phase conjugation » ; N. Stasio, D. Conkey, C. Moser, D. Psaltis ; SPIE BIOS, 2016
27. « Two-photon excitation endoscopy through multimode optical fiber » ; E.E.M. Delgado, D. Psaltis, C. Moser ; SPIE BIOS, 2016
28. « Fluorescence and optical-resolution photoacoustic imaging through capillary waveguides » ; N. Stasio, A. Shibukawa, I.N. Papadopoulos S. Farahi, O. Simandoux, J.P. Huignard, E. Bossy, C. Moser, D. Psaltis ; SPIE BIOS, 2016
29. « Laser-assisted inkjet printing of highly viscous fluids with sub-nozzle resolution » ; P. Delrot, M. A. Modestino, D. Psaltis and C. Moser ; SPIE LASE, 2016.
30. « Learning from examples in optical tomography » ; D. Psaltis ; SPIE BIOS, 2016.
31. « Complex light in 3D printing » ; C. Moser, P. Delrot, D. Loterie, E. M. Delgado and M. Modestino et al. ; SPIE OPTO, 2016.
32. "Delivery of ultrashort focused pulses through a multimode fiber for two photon endoscopic imaging", E.E. Morales-Delgado, I.N. Papadopoulos, S. farahi, D. Psaltis, C. Moser, Proceeding of SPIE, 2015
33. "Effect of Solar Thermal Energy on Photoreactions' Rate", Hosseini Hashemi SM, Choi JW, Psaltis D, CLEO, 2014
34. "Cytoplasmic stopped Flow at the Single Cell Based on Photosensitive Polymersomes", A.E: Vasdekis, E.A. Scott, C.P. O'Neil, D. Psaltis, J.A. Hubbell, 58th Annual Meeting of the Biophysical Society, 2014
35. "Shrinking optical endoscopes", Moser C, Farahi S, Papadopoulos IN, Psaltis D, SPIE Newsroom, 2013
36. "Optofluidic light switch enables reconfigurable solar lighting" Song W, Psaltis D, Laser Focus World 2013
37. "Endomicroscopy with multi-mode fibers" Moser C, Papadopoulos IN, Farahi S, Psaltis D SSOM bulletin, 2012
38. "Calculating the second harmonic near field radiation pattern from a LiNbO3 nanowire using a nonlinear Volume Integral Equation Method" Papadopoulos I, Pu Y, Psaltis D - CLEO, 2011
39. "In vivo imaging using second-harmonic nanoparticles" Hsieh CL, Lanvin T, Grange R, Pu Y, Psaltis D - CLEO, 2011
40. "Coherent anti-Stokes Raman scattering (CARS) holographic biological imaging" Edwards P, Shi K, Hu J, Xu Q, Wang Y, Psaltis D, Liu Z - CLEO, 2011
41. "In-line holographic CARS microscopy" Xu Q, Shi K, Li H, Choi K, Horisaki R, Brady D, Psalits D, Liu Z - CLEO, 2011
42. "Digital reverse propagation in focusing Kerr media" Goy A, Psalits D - CLEO, 2011
43. "Optofluidic lock-in spectroscopy on a chip" Song W, Psalits D - CLEO, 2011

44. "Integrated optofluidic modulators based on nematogen flows" Vasdekis AE, Cuennet J, De Sio L, Psaltis D - CLEO, 2011
45. "Imaging in focusing Kerr media using digital reverse propagation" Goy A, Psaltis D - CLEO Europe, 2011
46. "Superoscillatory diffraction-free beams" Makris K, Psaltis D - CLEO Europe, 2011
47. "Second-harmonic nanoparticles for deep tissue in vivo imaging" Grange R, Lanvin T, Hsieh CL, Pu Y, Psaltis D - CLEO Europe, 2011
48. "Imaging through turbid media using phase conjugation" Psaltis D, Pu Y, Hsieh CL, Grange R, Yang X - COSI, 2011
49. "Imaging through turbidity by phase-conjugate scanning microscope using second-harmonic beacon nanoparticles" Hsieh CL, Pu Y, Grange R, Laporte G, Psaltis D - DH, 2011
50. "Digital holography in nonlinear imaging" Goy A, Psaltis D, Hsieh CL, Pu Y - DH, 2011
51. "Optofluidics" Psaltis D - Transducers, 2011
52. "Second harmonic nanoparticles in imaging applications" Pu Y, Hsieh CL, Grange R, Yang X, Papadopoulos I, Choi JW, Psaltis D - Proceedings of SPIE, 2011
53. "Sub-micron channels fabricated by direct electron beam lithography on SU8 for optofluidic bacterial analysis" Vasdekis AE, Psaltis D - Proceedings of SPIE, 2011
54. "Optofluidics based on liquid crystal microflows" Vasdekis AE, Cuennet JG, De Sio J, Psaltis D - Proceedings of SPIE, 2011
55. "Second harmonic radiation imaging probes for bioimaging" – MicroOptics Conf., 2010
56. "Optofluidics" – EOS Annual Meeting
57. "Nonlinear Annual Meeting – Frontiers in Optics" – OSA Annual Meetings, 2010
58. "Surface optofluidics" – OSA Annual Meetings, 2010
59. "Second harmonic nanoparticles in bio-imaging" Psaltis D – Nanobio, 2010
60. "Surface optofluidics" Psaltis D – Optics and Photonics, 2010
61. "Optofluidic applications with lithium niobate nanowires" Psaltis D – Optics and Photonics, 2010
62. "Functionalized second harmonic active nanoparticles for cell imaging" Psaltis D – Optics and Photonics, 2010
63. "Opportunities for using microfluidics and photonics in bioscience and medicine" Psaltis D – IPOS Biophotonics Symposium, 2010
64. "The new and dynamic field of marrying photonics and microfluidics with bio-sensing applications" Psaltis D – IPOS Biophotonics Symposium, 2010
65. "Tuning mechanisms in optofluidics" Psaltis D, Song W, Choi JW - CLEO, 2010
66. "Nonlinear phase contrast enhancement" Goy AS, Psaltis D - CLEO, 2010
67. "Imaging based optofluidic interferometer on chip" Song W, Psaltis D - CLEO, 2010
68. "Optically generated electric fields by lithium niobate nanowires" Choi JW, Grange R, Hsieh CL, Pu Y, Magrez A, Smajda R, Forro L, Psaltis D - CLEO, 2010
69. "Enhanced second harmonic generation in plasmonic nanocavities" Pu Y, Grange R, Hsieh CL, Psaltis D - CLEO, 2010
70. "Imaging cells with second-harmonic generation active nanocrystals" Hsieh CL, Grange R, Pu Y, Psaltis D - Biomedical Optics, 2010
71. "Nonlinear imaging of coherent fields" Goy A, Psaltis D - FiO, 2010
72. "Surface optofluidics Vasdekis » A, Song W, Cuennet JR, De Sio L, Choi JW, Psaltis D - LS, 2010
73. « Surface optofluidics" Vasdekis AE, Cuennet JG, Song WZ, Choi JW, De Sio L, O'Neil CP, Hubbell JA, Psaltis D - Proceedings of SPIE, 2010
74. "Characterization of the cytotoxicity and imaging properties of second-harmonic nanoparticles" Hsieh CL, Grange R, Pu Y, Psaltis D - Proceedings of SPIE, 2010
75. "Optofluidic distributed feedback dye laser via evanescent gain" Song W, Vasdekis AE, Psaltis D - Proceedings of SPIE, Vol. 7599, pp. 75991E, 2010
76. "Pressure mediated tunable optofluidic devices" Song W, Psaltis D - Proceedings of SPIE, Vol. 7593, pp. 759309, 2010

77. "Tuning parameters of metal ion implantation within a microfluidic channel" Choi JW, Rosset S, Niklaus M, Adleman JR, Shea H, Psaltis D - Proceedings of SPIE, Vol. 7593, pp. 75930D, 2010
78. "Tunable optofluidic dye laser with novel cavity" Song W, Vasdekis AE, Psaltis D - Proceedings of SPIE, Vol. 7594, pp. 75940M, 2010
79. "Nonlinear imaging" Goy AS, Psaltis D - FiO, CThA2, 2009
80. "Novel tuning method for optofluidics" Song WZ, Psaltis D - ISOT, 2009
81. "Second harmonic efficiency of single barium titanate nanoparticles used as biomarkers for cells imaging" Grange R, Hsieh CL, Pu Y, Psaltis D - CLEO Europe, 2009
82. "Lithium niobate nanowires: growth, second harmonic and dielectrophoretic properties" Grange R, Choi JW, Hsieh CL, Pu Y, Magrez A, Forro L, Psaltis D - CLEO Europe, 2009
83. "Ultrasensitive second harmonic generation nanoprobe via plasmonic core-shell structures" Pu Y, Grange R, Hsieh CL, Psaltis D - CLEO Europe, 2009
84. "Optofluidic evanescent dye laser" Song WZ, Vasdekis AE, Psaltis D - CLEO Europe, 2009
85. "Harmonic holography" Hsieh CL, Grange R, Pu Y, Psaltis D - Digital Holography, DTuA1, 2009
86. "Harmonic holographic microscopy using nanoparticles as probes for three-dimensional cell imaging" Hsieh CL, Grange R, Pu Y, Psaltis D - CLEO, CFA6, 2009
87. "Micro-air-bag actuated tunable optofluidic elements" Song WZ, Vasdekis AE, Choi JW, Psaltis D - CLEO, CTuD2, 2009
88. "Bacteria manipulation with optically controlled fluidic valves" Choi JW, Adleman JR, Psaltis D - CLEO, CTuU6, 2009
89. "Harmonic holographic microscopy with circularly polarized excitation" Hsieh CL, Grange R, Pu Y, Psaltis D - Proceedings of SPIE, Vol. 7367, pp. 73670R, 2009
90. "Barium titanate nanoparticles used as second harmonic radiation imaging probes for cell imaging" Hsieh CL, Grange R, Pu Y, Psaltis D - Proceedings of SPIE, Vol. 7367, pp. 73670D, 2009
91. "Harmonic holography for three-dimensional cellular imaging" Hsieh CL, Grange R, Pu Y, Psaltis D - Proceedings of SPIE, Vol. 7329, pp. 73290H, 2009
92. "Second harmonic generating (SHG) nanoprobe: a new tool for biomedical imaging" Pantazis P, Pu Y, Psaltis D, Fraser S - Proceedings of SPIE, Vol. 7183, pp. 71831P, 2009
93. "Spectrographic fluidic memory using electroactive nanowell arrays" Cordovez B, Psaltis D, Erickson D - LEOS Summer Topical Meetings, pp. 199-200, 2008
94. "Microscope on a chip - a complete on-chip high-resolution optofluidic microscope" Cui X, Heng X, Zhong W, Sternberg PW, Psaltis D, Yang CH - BioMed, BMF5, 2008
95. "Holographic microscopy with second harmonic signals" Pu Y, Centurion M, Psaltis D - DH, DMA5, 2008
96. "Optical hydrodynamics" Tsang M, Psaltis D, Shapiro JH, Lloyd S - FiO, FWO3, 2008
97. "Harmonic holographic microscopy using nano-materials as imaging probes" Hsieh CL, Grange R, Pu Y, Psaltis D - CLEO, CPDA12, 2008
98. "Resonantly enhanced near-field lithography" Tsang M, Psaltis D - CLEO, Vol. 1-9, pp. 3495-3496, 2008
99. "Magnifying metamaterial lens design by coordinate transformation" Tsang M, Psaltis D - CLEO, Vol. 1-9, pp. 3079-3080, 2008
100. "Optofluidics" Psaltis D - BGPP, BWA1, 2007
101. "Fabrication and applications of holographic optical filters" Psaltis D, Moser C - PR, SuD5, 2007
102. "Optofluidic technologies" Adleman JR, Boyd DA, Goodwin D, Psaltis D - IPNRA, ITuC3, 2007
103. "Ultrafast mirrorless optical parametric oscillator in periodically poled KTiOPO4 via extended phase matching" Pu Y, Wu J, Tsang MK, Psaltis D - CLEO, Vol. 1-5, pp. 15-16, 2007
104. "Optofluidic microring dye laser" Li Z, Zhang Z, Scherer A, Psaltis D - LEOS Summer Topical Meetings, pp. 70-71, 2007
105. "Optofluidic technologies" Adleman JR, Boyd DA, Goodwin D, Psaltis D - LEOS Summer Topical Meetings, pp. 66-67, 2007
106. "Electroactive nanowells for spectrographic fluidic memory" Cordovez B, Psaltis D, Erickson D - Proceedings of SPIE, Vol. 6645, pp. 66451M, 2007
107. "Nanofluidic tuning of photonic crystal circuits" Erickson D, Rockwood T, Emery T, Scherer A, Psaltis D - Proceedings of SPIE, Vol. 6475, pp. 647513, 2007

108. "A high-resolution optofluidic microscope with optical tweezer actuation" Heng X, Hsiao E, Psaltis D, Yang C - Proceedings of SPIE, Vol. 6441, pp. 644113, 2007
109. "Bacteria detection in a microfluidic channel utilizing electromagnetic cellular polarization and optical scattering" Choi JW, Pu A, Psaltis D - LEOS Summer Topical Meetings, pp. 17-18, 2006
110. "Optical detection of asymmetric bacteria utilizing electro-orientation" Choi JW, Pu A, Psaltis D - Proceedings of SPIE, Vol. 6329, pp. 632901, 2006
111. "A compact optofluidic microscope" Heng X, Cui X, Erickson D, Baugh LR, Sternberg PW, Psaltis D, Yang C - Proceedings of SPIE, Vol. 6329, pp. 632908, 2006
112. "Tunable optofluidic distributed feedback dye lasers" Li Z, Zhang Z, Emery T, Scherer A, Psaltis D - proceedings of SPIE, Vol. 6329, pp. 632903, 2006
113. "Femtosecond imaging with digital holography" Pu Y, Centurion M, Psaltis D - Proceedings of SPIE, Vol. 6311, pp. 63111K, 2006
114. "Portable optical microscope-on-a-chip" Cui X, Heng X, Erickson D, Psaltis D, Yang C - Proceedings of SPIE, Vol. 6095, pp. 609509, 2006
115. "Optofluidic microscope and its applications in biology" Heng X, Reynold KW, Cui X, Erickson D, Psaltis D, Yang C - Proceedings of SPIE, Vol. 6088, pp. 608816, 2006
116. "A new imaging method: optofluidic microscopy", Heng H, Erickson D, Psaltis D, Yang C, (Invited Talk) SPIE Optics East Boston, MA 2005.
117. "Integration of Sub-Wavelength Nanofluidics with Photonic Crystals", Erickson D, Emery T, Rockwood T, Scherer A, Psaltis D, Proceedings ASME Int'l Mechanical Engineering Congress and Expo, Nov 2005
118. "Optofluidics", with David Erickson, Xin Heng, Zhenyu Li, Troy Rockwood, Teresa Emery, Zhaoyu Zhang and Axel Scherer, Proc., SPIE Vol. 5908-26, pp 231-242, Optics and Photonics, San Diego, CA, Aug 2005.
119. "Volume Holography Spectral Imaging", with Zhenyu Li, Wenhai Liu, William Johnson, Gregory Bearman, Proc., SPIE Photonics West, Vol. 5694-20, pp 24-32, San Jose, CA, Jan, 2005.
120. "Metaphoric Optical Computing for Fluid Dynamics", with Mankei Tsang, Proc., SPIE Photonics West Vol. 5735-02, pp 1-8, San Jose, CA, Jan 2005.
121. "A Microfluidic 2X2 Optical Switch", Lin Pang, U. Levy, K. Campbell, S., Mookharjee, Y. Fainman, Proc., Vol, 1, Issue 7-11, pp 124-125, IEEE LEOS Annual Meeting, Rio Mar, Puerto Rico, November, 2004.
122. "Experimental Observation of a Phase Transition in the Filament Generation Process in Kerr Media", with M. Centurion, and Ye Pu, Proc., Vol. 2, Issue 7-11, ppo 625-62, IEEE LEOS Annual Meeting, Rio Mar, Puerto Rico, November 2004.
123. "Holographic Filters", Proc., Vol. 2, Iss., 10-14, pp 657-68, IEEE LEOS Annual Meeting, Glasgow, Scotland, UK, November 2004.
124. "Optimization of the Photorefractive Response of Lithium Niobate Crystals", with Karsten Buse, Marc Luennemann, Proc., IEEE/OSA CLEO, San Francisco, CA May 2004.
125. "Volume Bragg Grating Devices", with C. Moser, F. Havermeier, WH Liu, G. Steckman, and K. Buse, Proc., Vol, 2, pp 644-645, IEEE Optical Fiber Communications Conference, Atlanta, GA, March, 2003.
126. "Holography in Information Systems", Summary of Invited Talk, p 70, Technical Digest, IEEE CLEO, Long Beach, CA, May 2002.
127. "Real-Time Hyperspectral Imaging with Volume Holographic Elements", with W Liu, A. Sinha, and G. Barbastathis, Proc., Vol 2, Iss 7-10, pp 1049-1052, IEEE Conference on Imaging Processing, Thessaloniki, Greece, October 2001.
128. "Spatial Spectral Imaging Using Volume Holograms, with Wenyai Liu, Invited Paper, OSA CLEO, Baltimore, MD, May 2001.
129. "Multiplexing and M# Measurement in Spectral Hole Burning Medium", with Z. Liu, W. Liu, C. Moser, D. Zhang, I Solomatine, and A. Gorokhovskiy, p, 374, Technical Digest, Summaries of Papers, CLEO, Baltimore, MD, May 2001
130. "Mechanism of the Dark Decay of Holograms in LINBO₃:Fe Crystals, with Yunping Yang, Ingo Nee, and Karsten Buse, p. 510, Technical Digest, IEEE CLEO, Baltimore, MD, May 2001.

131. "Holographic Information Systems, Invited Talk, OSA Optics in Computing, Lake Tahoe, NV, Jan 2001.
132. "Optically Reconfigurable Gate Array", with J. Mumburu, G. Panotopoulos, X. An, G. Zhou and F. Mok, Proc., p. 84, IEEE Applied Imagery Pattern Recognition Workshop, Washington DC, October 2000.
133. "Holographic Random Access Memory", Proc., Vol. 5, pp 391-397, IEEE National Aerospace & Electronic Conference, Dayton, Ohio, October 2000.
134. "Holographic Multiplexing in a Photorefractive Polymer", with G. Steckman, R. Bittner, K. Meerholz, Invited Talk, IEEE CLEO, San Francisco, CA, May 2000.
135. "Optically Reconfigurable Processors", with J. Mumburu, J. Panotopoulos, G. Zhou, X. An and F. Mok, IEEE SSMSD, San Diego, CA, Feb 2000.
136. "Holographic Random Access Memory (HRAM), with Ernest Chuang, Wenhai Liu and Jean-Jacques Drolet, Invited Paper, Proc., IEEE Vol. 87, No. 11, pp 1931-1940, November, 1999.
137. "Rewritable Holographic Memory", with Wenhai Liu and Ali Adibi, Invited Paper, Technical Digest of the Joint International Symposium on Optical Memory and Optical Data Storage, Vol. 3864, pp. 94-96, Koloa, Hawaii. July, 1999.
138. "Optically Reconfigurable Processors", with Jose Mumburu, Gan Zhou, Suat Ay, Xin An, George Panotopoulos and Fai Mok, SPIE Critical Review, 1999 Euro-American Workshop on Optoelectronic Information Processing, Vol. 74, pp. 265-288, Colmar, France, June, 1999.
139. "Holographic recording in doubly-doped lithium niobate", with Ali Adibi and Karsten Buse, Technical Digest, OSA Spatial Light Modulators and Integrated Optoelectronic Arrays, Snowmass, Colorado, April, 1999.
140. "Optical memory for computing and information processing", with Jose Mumburu, Gan Zhou, Xin An, Wenhai Liu, George Panotopoulos, Fai Mok, Invited Paper, SPIE Algorithms, Devices and Systems for Opticidal Informaiton Processing III, Vol. 3804, pp 14-24, Denver, Colorado, July 1999.
141. "Liquid crystal on silicon beam deflector:", with Xu Wang, Proc., SPIE Diffractive and Holographic Technologies Systems and Spatial Light Modulators VI, Vol. 3633, pp. 160-169, Jan, 1999.
142. "Pixel size limit for a holographic memory system", with Wenhai Liu, Proc., SPIE Diffractive and Holographic Technologies Systems and Spatial Light Modulators VI, Vol. 3633, pp. 187-193, June, 1999.
143. "Optically Reconfigurable Processors", with Jose Mumburu, Gan Zhou, Suat Ay, Xin An, George Panotopoulos and Fai Mok, SPIE Vol. CR 74. 1999.
144. "Holographic data storage in phenanthrenequinone-doped PMMA", with Gregory Steckman, Iouri Solomatine and Gan Zhou, Proc., SPIE, Organic Photonic Materials and Devices, Vol. 3623, pp. 234-242, San Jose, CA., Jan, 1999.
145. "Optical logic gates by nonlinear mixing in BBO", with Christophe Moser, Proc., SPIE, Optical Pulse and Beam Propagation, Vol. 3609, pp 173-180, San Jose, California, Jan 1999
146. "Data output interface for holographic memory", with Gan Zhou, Olga Ivanova, Allen Pu and Fai Mok, Proc., SPIE Optoelectronics Interconnects, VI, Vol 3632, pp. 292-296, San Jose, California, Jan 1999.
147. "Novel method for persistent holographic recording in doubly-doped lithium niobate", with Karsten Buse and Ali Adibi, Proc. IS&T /SPIE Conference on Holographic Materials V, Vol. 3638, pp. 15-21, San Jose, California, Jan 1999.
148. "A Birefringent Polymer for Holographic Recording", with Gregory J. Steckman, Iouri Solomatine and Gan Zhou, Proc. IEEE Nonlinear Optics, Materials Fundamentals and Applications, pp. 311-312, Princeville, Hawaii, Aug, 1998.
149. "A Novel Method for non-volatile holographic recording in lithium niobate", with Ali Adibi and Karsten Buse, Proc., Nonlinear Optics, Materials Fundamentals and Applications Topical Meeting, Princeville, Hawaii, Aug 1998.
150. "Read/Write Holographic Memory versus Silicon Storage", with Wenhai Liu, and Ernest Chuang, Invited Paper, Proc. SPIE, Vol. 3468, San Diego, CA., July 1998.
151. "Liquid crystal blazed grating beam deflector", with Xu Wang, Daniel W. Wilson, Richard E. Muller and Paul Maker, Proc. SPIE Annual Meeting San Diego, CA., July 1998.

152. "Hologram Multiplexing Using two-Step Recording", with Ali Adibi and Karsten Buse, Proc. SPIE Annual Meeting, San Diego, CA., July 1998.
153. "Inter-pixel grating noise in holographic memories", with Xin An and George Panotopoulos, Proc., SPIE, Advanced Optical Memories and Interfaces to Computers, San Diego, CA., July, 1998.
154. "Holographic correlator array with selectable shift-invariance", with Michael Levene and Gregory J. Steckman, Proc SPIE, Vol. 3470, pp. 203-208, San Diego, CA, July 1998.
155. "Efficient non-volatile holographic recording in doubly-doped lithium niobate", with Karsten Buse and Ali Adibi, SPIE Vol. 3490, 1998.
156. "Holographic memory design for a petaflop superconducting computer architecture", with Ernest Chuang and Wenhai Liu, Proc., Optics in Communications and Computing, Brugge, Belgium, June 1998.
157. "Compact Holographic Memories", with Invited Talk OSA Annual Meeting, Long Beach, CA, October 1997
158. "Awareness Based Computation", with George Barbastathis and Christoph Koch, Proc. 4th Joint Symposium on Neural Computation, Vol. 7, San Diego, CA, May 1997.
159. "Shift Multiplexed Holographic 3-D Disk System", with Allen Pu, OSA LEOS Non Linear Optics Conference Technical Digest Series, Vol. 11, pp. 162-164, Maui Hawaii July, 1996.
160. "Compact architecture for holographic systems", with George Barbastathis Ernest Chuang and Jean-Jacques Drolet, Invited Talk, LEOS '96 Boston, MA, November, 1996.
161. "Nonvolatile holographic storage in photorefractive materials", with Xin An, George Barbastathis, Ali Adibi and Ernest Chuang, Critical Review of Optical Science and Technology Proc. and, Vol. CR-65, pp. 181-213, Denver, Colorado Aug, 1996.
162. "Nonvolatile holographic storage methods", with E. Chuang, Proc SPIE, Vol. 2849, pp. 86-95, Denver, Colorado, Aug, 1996.
163. "Non-holographic memories in photorefractive media", with Invited Paper CLEO '96, Anaheim, CA June 1996.
164. "Compact holographic memories", with Jean-Jacques Drolet and George Barbastathis, Int'l Topical Meeting on Optical Computing, Vol. 1 pp. 230-231, Japanese Society of Physics, Sendai, Japan April 1996.
165. "Electromagnetic MEMS Scanning Mirrors for Holographic Data Storage", with Raanan A. Miller, Geoffrey W. Burr and Yu-Chong Tai, Proc. 1996 Solid State Sensor And Actuators Workshop, Hilton Head, Hawaii, June 1996.
166. "Performance Characteristics of Holographic 3-D Disk", with Allen Pu, Proc 1996 Workshop on Data Encoding for Page-oriented Optical Memories, Phoenix, Arizona, March 1996.
167. "Integrated optoelectronics using liquid-crystal-on-silicon VLSI", with Jean-Jacques P. Drolet and George Barbastathis, Proc SPIE. CR-62, Optoelectronics Interconnects and Packaging, pp. 106-131, 1996.
168. "A magnetically actuated MEMS scanning mirror", with Raanan A. Miller, Geoffrey Burr and Yu-Chong Tai, Proc. SPIE Miniaturized Systems with Micro-Optics and Micromachining, Vol. 2687, pp.47-52, Jan 1996.
169. "Magnetically Actuated Micromirros For Use As Optical Deflectors", with Raanan A. Miller, Geoffrey W. Burr and Yu-Chong Tai, Proc. 4th Annual International Symposium on Magnetic Processes and Devices, October 8-13, 1995.
170. "Liquid Crystal displays using the hybrid alignment method", with Jean-Jacques Drolet and Jay Patel, Invited Paper, Proc. SPIE, Vol. 2650, pp. 142-8, San Jose, CA Jan, 1996.
171. "Holographic 3D disks using shift multiplexing", with George Barbastathis, Allen Pu and Michael Levene, Proc Vol 2514, p355-SPIE Optical Data Storage Conference, San Diego, July 1995.
172. "Real Time Image Recognition Experiments Using Holographic Memories", with Allen Pu, Xin An, Michael Levene, Robert Denkwalker and George Barbastathis, Proc. and Oral Presentation at IEEE Workshop on Nonlinear Signal and Image Processing, Halkidiki, Greece, June 1995.
173. "Large-scale rapid access holographic memory", with Geoffrey W. Burr, Xin An and Fai Mok, Proc. SPIE:ODS, Vol. 2514 pp. 363-371, San Diego, CA June 1995.

174. "Angle and space multiplexed holographic storage using the 90° geometry", with G. W. Burr and F. H. Mok, *Optics Communications*, Vol. 117, No. 1,2 pp. 49-55, May 1995.
175. "Holographic Storage Using a Novel Shift Multiplexing Method", with Michael Levene, Allen Pu and GeorgeBarbastathis, *Proc. CLEO '95 Technical Digest*, Vol. 15, p. 422, Baltimore, Md. May, 1995.
176. "Monolithic Optoelectronic Circuit Design and Fabricatin by Epitaxial Growth Commercial VLSI GaAs MESFETS", with Annette C. Grot, *IEEE Photonics Technology*, Vol. 7, No. 5, pp. 508-510, May 1995.
177. "Holographic storage using shift multiplexing", with Michael Levene, Allen Pu, Kevin Curtis and George Barbastathis, *SPIE*, pp.782-784, April 1995.
178. "Nematic liquid crystal analog modulators fabricated on VLSI circuitry", with Jean-Jacques Drolet, *OSA Topical Meeting on Spatial Light Modulators and Applicators, Technical Digest Series*, Vol.9, No. PD2-2, Salt Lake City, Utah, March 1995.
179. "Shift Multiplexed Holographic 3-D Disk", with Allen Pu, George Barbastathis and Michael Levene, *Proc. OSA Topical Meeting on Optical Computing Technical Digest Series*, Vol. 10, pp 219-221, March 1995.
180. "Robot Navigation Using a Peristrophic Holographic Memory", with Allen Pu and Robert Denkwalter, *Invited Talk, OSA Topical Meeting on Optical Computing, Technical Digest Series*, Vol. 10, pp. 137-139, March 1995.
181. "Optical FET receivers for neural network applications", with Jiafu Luo and Annette Grot, *Optoelectronic Interconnects III*, San Jose, CA Feb 1995.
182. "Three dimensional optical disk based correlator", with Kevin Curtis, *Optical Engineering*, Vol. 33, No. 12, pp. 4051-4054, December 1994.
183. "Cross-talk for Angle and Wavelength Multiplexed Image Plane Holograpms", with Kevin Curtis, *IEEE*, Vol. 19, No. 21, pp.1774-1776, November 1994.
184. "3-D Disks Using Photopolymer Films", with Kevin Curtis and Allen Pu, *Invited Paper SPIE OE LASE*, 1994.
185. "Comparison of Si/CMOS and GaAs MESFET Technologies for Analog Optoelectronic Circuits", with Annette C. Grot, Krishna Shenoy and Clifton G. Fonstad, Jr., *Proc. IEEE/LEOS Summer Topical Meeting on Smart Pixel*, Lake Tahoe, July 1994.
186. "Angle and Space Multiplexed Holographic Randon Access Memory (HRAM)", with Fai Mok and Geoffrey W. Burr, *Optical Memory and Neural Networks*, Vol. 3, No. 2, pp. 119-127, 10 Aug 1994.
187. "Optical Neural Netowrks", with Michael Levene, *Critical Review Optical Science and Technology*, pp. 141-149, Orlando, FL April, 1994.
188. "3-D holographic storage in image recognition", with Fai Mok, Sidney Li, Kevin Curtis, Xin An and Michael Levene, *Proc. Euro-American Workshop on Optical Recognition*, La Rochelle, France, p 419-427, June 1994.
189. "Characterization of the DuPont photopolymer for three-dimensional holographic storage", with Kevin Curtis, *Applied Optics*, Vol. 3, No.23 pp. 5396-5399, 10 Aug, 1994.
190. "A New Method for Holographic Data Storage in Photopolymer Films", with A. Pu and K. Curtis, *IEEE Nonlinear Optics Materials Fundamentals, and Application Conference*, pp. 433-435, Waikoloa, Hawaii, July 1994.
191. "GaAs optoelectronic winner-take all circuits", with Annette Grot, Krishna V. Shenoy and Clifton G. Fonstad, *Proc. CLEO'94 Technical Digest*, Vol. 8 p. 377, Anaheim, CA, May 1994.
192. "Storage of 10,000 holograms in LiNbO3:fe", with Geoffrey W. Burr and Fai H. Mok, *Proc. CLEO '94, Technical Digest*, Vol. 8, p. 9, Anaheim, CA May 1994.
193. "Large-scale holographic memories", with Fair Mok and Geoffrey Burr, *Proc. Cleo '94 Technical Digest*, Vol. 8, p. 7, Anaheim, CA, May, 1994.
194. "Nonvolatile holographic storage in photorefractive crystals", with Hsin-Yu S. Li and Fai H. Mok, *Proc. Technical Digest CLEO '94*, Vol. 8, p. 7, Anaheim, CA, May 1994.
195. "High Density Holographic Storage in Thin Films", with Kevin Curtis and Allen Pu, *Proc. Optical Data Storage Topical Meeting*, Vol 2338 pp. 69-73, Dana Point, CA, May 1994.

196. "Large Scale volume holographic storage in the Long Interaction Length Architecture", with Geoffrey W. Burr and Fai H. Mok, Proc. SPIE San Diego, CA 1994.
197. "Holographic Disks", with Hsin-Yu Sidney Li, Kevin Curtis and Yong Qiao, Proc. of the Joint International Symposium on Optical Memory and Optical Data Storage, p. 79, Maui, Hawaii, 1993.
198. "Large Scale Holographic Memory: Experimental Results", with Geoffrey W. Burr and Fai H. Mock, Proc. Of the Joint International Symposium on Optical Memory and Optical Data Storage, p. 75-76, Maui, Hawaii, 1993, Also presented at SPIE, San Diego 1993.
199. "Multi-channel Disk-based optical correlator", with Kevin Curtis, Proc. SPIE, Vol. 2026A-05, San Diego, CA July 1993.
200. "Photorefractive tungsten bronze materials for data storage applications", with R.R. Neurgaonkar, W. K. Cory and J. R. Oliver, Proc. Critical Review of Optical Science and Technology Conference, p.148-162, CR, Vol. 48, San Diego, CA July 1993.
201. "Adaptive optical networks for image recognition", with Yong Qiao and Sergei Orlov, Proc. Optical Science and Technology Conference, pp.258-63, CR, Vol. 48, San Diego, CA July 1993.
202. "An Optical Face Recognition System", Proc. SPIE, Vol. 1773, p.59, San Diego, CA 1992.
203. "Spatially and Angle Multiplexed Holographic Random Access Memory", with Fai Mok and Geoffrey Burr, SPIE 1773, p. 334, San Diego, CA 1992.
204. "An optical face recognition system", with Yng Qiao and Hsin-Yu Li, SPIE Taiwan, December 1992.
205. "Volume storage in photorefractive disks", with Hsin-Yu Li, SPIE Taiwan, December 1992.
206. "Learning in Large Optical Networks", with Yong Qiao Presented at, SPIE Conference on Applications of Artificial Neural Networks III, Orlando, Florida 1992.
207. "Optoelectronic Chip for the Implementation of Back Error Propagation", with Hsin-Yu Li and Jean-Jacques Drolet and Mark Handschy, Proc. from IEEE/LEOS Summer Topical Meetings on Smart Pixels, Santa Barbara, California, July 1992.
208. "Bellman Strikes Again-The Growth Rate of Sample Complexity with Dimension for the Nearest Neighbor Classifier", with Santosh Venkatesh and Robert Snapp, ACM Workshop on Computational Learning Theory COLT Pittsburgh, PA 1992.
209. "On Reliable Computation with Formal Neurons", with Santosh S. Venkatesh, IEEE Transaction on Pattern Analysis and Machine Intelligence, Vol. 14, No. 1, pp. 87-91, Jan, 1992.
210. "The VC-dimension vs. the Statistical Capacity for Two Layer Networks with Binary Weights", with Chuanyi Ji, Proc. of the Fourth Annual Workshop on Computational Learning Theory (Morgan Kaufmann Publishers, San Mateo, California), p. 250, Santa Cruz, California, Aug, 1991.
211. "Optoelectronic Neuron Arrays", with S. Lin, Proc. of SPIE, Vol. 1562-16, p.204, San Diego, California, July, 1991.
212. "Optical Multilayer Neural Networks", with Yong Qiao, Proc. of SPIE, Vol. 1564-45, p.489, San Diego, California, July 1991.
213. "Handwritten Zip Code Recognition using Optical Radial Basis Function Classifier", with M. Neifeld and S. Rakshit, Proc. of SPIE, Vol. 1469-33, Orlando Florida, 1991.
214. "Learning Algorithms for Optical Multilayer Neural Networks", with Yong Qiao, Proc. The International Joint Conference on Neural Networks (IJCNN-91), IEEE Cat. 91CH3049-4, p. I-457, Seattle, Washington, July 1991.
215. "The Capacity of a Two Layer Network with Binary Weights", with C. Ji, Proc. The International Joint Conference on Neural Networks (IJCNN-91), IEEE Cat. 91CH3049-4, p. II-127, Seattle, Washington, July 1991.
216. "Closed-Loop Optical-Disk Based Associative Memory", with M. Neifeld, OSA Topical Meeting on Optical Computing, 1991 Technical series, Vol. 6, p.276, Salt Lake City, March 1991.
217. "Learning in Optical Neural Networks", OSA Topical Meeting on Optical Computing, 1991 Technical Series, Vol.6, p.266, Salt Lake City, March 1991.
218. "The Reliability of Optical Logic", with C. Stirk, OSA Topical Meeting On Optical Computing, 1991 Technical Series., Vol.6, P.14, Salt Lake City, March 1991.

219. "GaAs-Based Optoelectronic Neurons", with S. Lin, F. Ho, and J. Kim, OSA Topical Meeting On Optical Computing, 1991 Technical Series, Vol.6. p.295, Salt Lake City, March 1991.
220. "High Gain GaAs Optoelectronic Thresholding Devices for Neural Network Implementation", with S. Lin and J. Kim, Integrated Photonic Research Conference, Monterey, Ca April, 1991.
221. "Neural Network Control of a Two-Link Manipulator", with A. Yamamura, A. Sideris and C. Ji, Proc. 29th IEEE Conference on Decision and Control, Vol. 6, p.3265, Honolulu, Hawaii, December 1990
222. "Asymptotic Slowing down of the Nearest Neighbor Classifier", with R. Snap and S. Venkatesh, Proc of the Neural Information Processing Systems (Nips) Conference, Denver, Colorado, November 1990.
223. "Optical Disk-Based Spectrum Analysis", with Nabeel Riza, Technical Digest of the Optical Society Of America Annual Meeting, Tuk5, Boston, Massachusetts, November 1990.
224. "Novel Method for Computer Generated Holography based on Neural Networks", with Seiji Kobayashi, Technical Digest of the Optical Society of America Annual Meeting, MFF6, Boston, Massachusetts, November 1990.
225. "Comparison of Optical and Electronic 3-Dimensional Circuits", with Charlie Stirk, SPIE, Vol. 1389-49, Boston, Massachusetts, November 1990.
226. "Optical Disk Implementation of Radial Basis Classifiers", with M. Neifeld, S. Rakshit, A. Yamamura and S. Kobayashi, SPIE, Vol. 13487-02, San Diego, CA. 1990.
227. "An Optoelectronic Multilayer Network", with A. Yamamura, M. Neifeld and S. Kobayashi, Digest of the Optical Computing Meeting, Kobe, Japan, April 1990, also presented at the Optics for Computing meeting, Showbird, Utah, April 1990.
228. "Optical Disk Based Processor for Handwritten Character Recognition", with M. A. Neifeld, S. Kobayashi and A. Yamamura, Proc. of The International Neural Networks Conference, Paris, 1990.
229. "Learning in Optical Neural Networks", with David Brady and Ken Hsu in, *Parallel Processing In Neural Systems and Computers*, Eckmiller, Et.Al. Editors, p.543, Elsevier Science Publishers, North Holland, 1990
230. "An Optoelectronic Multilayer Network", with A. Yamamura, S. Kobayashi and M. Neifeld, SPIE, Vol.1215-58, Los Angeles, Jan, 1990.
231. "Mass Storage for Digital Optical Computers", with A. Yamamura and Hsin-Yu Li, SPIE Critical Reviews Series, Digital Optical Computing, Vol. 1214-08, Los Angeles, Jan. 1990.
232. "Photorefractive Holograms in LiNbO₃ with Multiple Trapping Species", with David Brady, David Kagan and Daniel Raguin, OSA Topical Meeting On Photorefractive Crystals, Aussois, France, Jan 1990.
233. "Optical Implementation and Analysis of a Two Layer Hetero-Associative Memory", with S. Li and K. Hsu, Technical Digest Of The Optical Society Of American Annual Meeting, WJ1, Orlando, Florida, October, 1989.
234. "Anomalous Erasure Of Photorefractive Holograms In LiNbO₃", Technical Digest Of The Optical Society Of America Annual Meeting, MR2, Orlando, Florida, October 1989.
235. "Application Of Optical Disk Technology To Optical Information Processing", with A Yamamura, M. Neifeld and S. Kobayashi, SPIE Critical Review Series Spatial Light Modulators And Applications, Vol. 1150, p.104, San Diego, 1989.
236. "Local and Asymmetric Interconnections using Volume Holograms", with Claire Gu, Technical Digest of the Optical Society of American Annual Meeting, Santa Clara, CA, October, 1990.
237. "Holographic Recording on Optical Disks", with M. Neifeld, A. Yamamura and S. Kobayashi, Technical Digest Of The International Symposium On Optical Memory, p. 143, Kobe, Japan, September, 1989.
238. "Integration of High Gain Double Heterojunction GaAs Bipolar Transistors with a LED for Optical Neural Network Application", with Lin, Kim and Katz, Proc., IEEE/Cornell Conference on Advanced Concepts In High Speed Semiconductor Devices And Circuits IEEE Cat. No. 89CH2790-4, p. 344, Cornell University, Ithaca, Aug, 1989.
239. "Multiply Exposed Photorefractive Holograms with Maximal Diffraction Efficiency", OSA Topical Meeting on Optical Computing, Salt Lake City, UT, Feb, 1989.

240. "Optical Disk Based Correlation Architectures", with Mark Neifeld and Alan Yamamura, OSA Topical Meeting on Optical Computing, p.206, Salt Lake City, UT, Feb, 1989.
241. "Parallel Read-Out of Optical Disks", with Alan Yamamura, Mark Neifeld and Seiji Kobayashi, OSA Topical Meeting on Optical Computing, p.58, Salt Lake City, UT, Feb, 1989.
242. "Limitations of Optoelectronic Neural Networks", with Yu, Johnston and Brady, SPIE, Vol. 1053-04, Los Angeles, CA, Jan 1989.
243. "Monolithically Integrated Two-Dimensional Arrays of Optoelectronic Devices for Neural Network Applications", with Kim, Lin and Katz, SPIE, Vol.1043, Los Angeles, Jan 1989. Also presented at the LEOS 89 Meeting, Orlando, FL, October, 1989.
244. "Fractal Sampling Grids for Holographic Interconnections", with Claire Gu and David Brady, Proc. Optical Computing 88 Conference, SPIE-963p.468, Toulon, France, Aug 1988. Also presented at the International Neural Networks Society Annual Meeting, Neural Networks journal, Vol. 1, supplement 1 p.401, Boston, MA., September 1988.
245. "Conoscopic Television System", with Didier Charlot, Gabriel Sirat and Eric Dufresne, Proc. Optical Computing 88 Conference, SPIE-963, p.361, Toulon, France, Aug 1988.
246. "Invariance and Discrimination Properties of the Optical Associative Loop", with Ken Hsu, ICCN Proc. (IEEE Catalog number 88CH2632-8), p. II-395, San Diego, Ca, July 1988.
247. "The Emergence of Generalization in Networks with Constrained Representations", with Mark Neifeld, ICCN Proc. (IEEE catalog number 88CH2632-8), p. I-371, San Diego, CA, July, 1988.
248. "Broadband Beamforming via Acousto-Optics", with Lin, Hong and Broughton, SPIE, Vol. 936-17, Orlando, Florida, April, 1988.
249. "Interference Filters as Nonlinear Decision Making Elements for Associative Memories", with Khitrova, Wang, Esch, Feinlieb, Chou Sprague, Macleod, Gibbs and Wagner, SPIE, Vol.881, Los Angeles, CA, Jan 1988.
250. "Photorefractive Crystals in Optical Neural Computers", with David Brady and Claire Gu, SPIE, Vol.882, Los Angeles, CA, 1988.
251. "Optical Network that Learns to Perform Motion Compensation in Radar Imaging", with Scott Hudson, SPIE, Vol.882, Los Angeles, CA, Jan 1988.
252. "Multiplicative Time-and-Space Integrating Acoustooptic Architecture for Real Time Spectrum Processing", with Nabeel Riza, SPIE, Vol.827-34, San Diego, CA, Aug, 1987.
253. "A Photorefractive Optical Vector-Matrix Multiplier", with David Brady, SPIE, Vol.825-19, San Diego, CA, Aug 1987.
254. "Capacity of Optical Correlators", with Jeff Yu and Fai Mok, SPIE, Vol.825-22, San Diego, CA, Aug 1987.
255. "Photorefractive Time Integrating Correlator and Adaptive Processor", with Jeffrey Yu and John Hong, OSA Topical Meeting on Photorefractive Materials, Effects, and Devices, p.193, Los Angeles, CA, Aug, 1987.
256. "Neural Controllers", with Athanasios Sideris and Alan Yamamura, International Conference on Neural Networks San Diego, CA, June 1987.
257. "Nonlinear Etalons in Adaptive Optical Neural Computers", with Kelvin Wagner, International Conference on Neural Networks, San Diego, CA, June, 1987.
258. "Learning in Optical Neural Computers", with Kelvin Wagner and David Brady, International Conference on Neural Networks, San Diego, CA, June, 1987.
259. "Photorefractive Crystals as Adaptive Elements in Acoustooptic Filters", with John Hong, Scott Hudson and Jeff Yu, SPIE, Vol.789-39, Orlando, FL, May 1987.
260. "Optical Neural Computers", OSA Topical Meeting on "Optical Computing" p.254, Lake Tahoe, NV March 1987.
261. "Real-Time Acousto-Optic Spot-Light Mode SAR Processor", OSA Topical Meeting on "Optical Computing" p.159, Lake Tahoe, NV March 1987.
262. "Multilayer Optical Learning Networks", with Kelvin Wagner, OSA Topical Meeting on "Optical Computing" p.133, Lake Tahoe, March 1987.
263. "Optical Neural Nets Implemented with Volume Holograms", with Jeffrey Yu, Xiang Guang Gu, OSA Topical Meeting on "Optical Computing" p.129, Lake Tahoe, March 1987.

264. "Multilayer Optical Learning Networks", with Kelvin Wagner, SPIE, Vol.752-16, Los Angeles, Jan, 1987.
265. "Conoscopic Holograms", with G. Sirat and D. Charlot, IOCC, SPIE, Vol. 700, Jerusalem, July, 1986.
266. "Neural Network Modeling and Optical Information Processing", Conference on Laser and Electrto-Optics p.382, San Francisco, CA, July, 1986.
267. "Optical Realizations of Neural Networks Models", IOCC SPIE Vol 700, p.278, Jerusalem, July 1986.
268. "Recursive Transforms in Hybrid Processing", with H. S. Hou, SPIE Vol 638-05, Orlando, FL. April, 1986.
269. "Acoustooptic Image Correlators", with Eung Gi Paek, Cheol Hoon Park and Fai Mok, SPIE Vol .638-05, Orlando, FL, April, 1986.
270. "Invariance in Optical Associative Memories", with John Hong and Santosh Venkatesh, SPIE Los Angeles, Vol 625-27, Jan 1986.
271. "Computational Power and Accuracy Trade-Offs in Optical Numerical Processors", SPIE, Vol.614-15, p.165, Los Angeles, CA, Jan 1986.
272. "Acoustooptic Implementation of Neural Network Models", with Eung Gi Paek and John Hong, Journal of the Optical Society of America A Special Edition, Annual Meeting, Vol.2, p.45, December 1985.
273. "Integrated-Optical Synthetic Aperture Radar Processor", with Tom Bicknell and Armand Tanguay, Journal of the Optical Society of America A Special Edition, Annual Meeting, Vol. 2, p.8, December, 1985.
274. "Computation Power of Parallelism in Optical Architectures", with Yaser Abu-Mostafa, Proc. IEE Computer Society Workshop on Computer Architecture for Pattern Analysis and Image Database Management, p.42, November, 1985.
275. "Real-Time Incoherent Optical Correlator", Proc. Conference on Lasers and Electronics, p.312, Baltimore, MD, May 1985.
276. "Acousto-Optic Techniques for Real Time SAR Imaging", with Michael Haney, Proc. SPIE, Vol. 545-26, April 1985.
277. "Acoustooptic Adaptive Signal Processing", with John Hong, Proc. SPIE, Vol. 51-20, Arlington, VA, April, 1985.
278. "Optical Implementation of the Hopfield Model", with Nabil Farhat, Proc. OSA Topical Meeting on Optical Computing, Lake Tahoe, CA, March, 1985.
279. "Optical Computing and the Hopfield Model", Proc. OSA Topical Meeting on Optical Computing, Lake Tahoe, CA, March, 1985.
280. "Time and Space Integrating Acousto-Optic Folded Spectrum Processing for SETI", with Kelvin Wagner, Proc. SPIE, Vol.564-31, 1985.
281. "Conoscopic Holography", with G. Sirat, Proc. SPIE, Vol. 523-46, Los Angeles, Jan, 1985.
282. "Resolution and Sensitivity Enhancement of the Photorefractive Incoherent-to-Coherent Optical Converter", with A. Marrakchi, A. R. Tanguay, Jr. and Y. Yu, Proc., OSA Annual Meeting, 1984 and Journal of the Optical Society of america A, Vol. 1, December 1984.
283. "New Approach to Optical Information Processing Based on the Hopfield Model", with Nabil Farhat, Proc. Journal of the Optical Society of America A, Vol.1, December 1984.
284. "Adaptive Acousto-Optic Processor", with John Hong, Proc. SPIE, Vol. 519, Boston Massachusetts October 1984.
285. "Programmable Real Time Acousto-Optc/CCD SAR Processor", with Michael Haney, Kelvin Wagner, Proc. SPIE, Vol.495-25, San Diego, CA, Aug 1984.
286. "Photorefradtive Incoherent-to-Coherent Optical Conversion", with A. Tanguay, J. Yu and A. Marrakchi, Proc. International Commission of Optics Congress 13, Sopporo, Japan, Aug 1984.
287. "A New Approach to Optical Information Processing Based on the Hopfield Model", with Nabil Farhat, Proc. International Commission of Optics Congress 13, Sopporo, Japan, Aug 1984.
288. "Input/Output Devices", Proc. SPIE, Vol. 465-07, p.66, Los Angeles, CA, Jan 1984.
289. "On the Use of the Magneto-Optic Device in Optical Processors", with F. Mok and E. G. Paek, Proc. SPIE Vol 465, Los Angeles, CA, Jan, 1984.

290. "Photorefractive Incoherent to Coherent Converter: Materials Issues", with J. Yu, A. Tanguay and A. Marrakchi, Proc. SPIE Vol 465, Los Angeles, CA, Jan, 1984.
291. "Acousto-Electro-Optic Light Modulation", with H. Lee, G. Sirat, Proc. SPIE, Vol. 465, Los Angeles, CA, Jan 1984.
292. "Photorefractive Incoherent to Coherent Converter", with Jeff Yu, Armand Tanguay and Abdelatif Marrakchi, Proc. SPIE, Vol. 465, Los Angeles, CA, Jan 1984.
293. "Real Time Synthetic Aperture Radar Processing", with Michael Haney and Kelvin Wagner, Proc. Conference on Optical Information Processing for Aerospace Application, p.299, Hampton, VA, Aug 1983.
294. "Acousto-Optic/CCD Real-Time SAR Data Processor", Proc. Spaceborne Imaging Radar Symposium, JPL publication, Vol.83-11, p.105, Pasadena, CA July, 1983.
295. "Acousto-Optic/CCD Image Processor", with Eung Gi Paek and Santosh Venkatesh, Proc. of the International Optical Computing Conference p.204, 1983.
296. "Coherence Properties of Pulsed Laser Diodes", with Michael Haney, Proc. of the International Optical Computing Conference p.197, MIT, Cambridge, MA, April 1983.
297. "Real Time Computation of Moments with Acousto-optics", with Kelvin Wagner, Proc. SPIE, Vol.352-19, Aug 1982, San Diego, CA.
298. "Synthetic Aperture Imaging using Acousto-Optic and Charge-Coupled devices", with Kelvin Wagner and Michael Haney, Proc. SPIE, Vol. 352-16, Aug 1982, San Diego, CA.
299. "2-D Magneto-Optic Spatial Light Modulator for Signal Processing", with W. E. Ross and R. H. Anderson, Proc. SPIE, Vol. 341-25, Washington D.C., April 1982.
300. "Image Processing Using Acousto-Optics", Proc. EOSD Conference Anaheim, CA, November, 1981.
301. "Generation of Synthetic Aperture Radar Images Using Acousto-Optics", with Kelvin Wagner, Proc. SPIE, Vol. 271-13, 1981.
302. "High Speed Techniques for Synthetic Aperture Radar Image Formation", with Armand Tanguay, Jr. and Thomas Bicknell, Proc., Conference on Optical Information Processing for Aerospace Applications, p.9, Hampton, VA Aug 18-19, 1981.
303. "Digital Correlation by Optical Convolution/Correlation", with Joe Trimble, David Casasent, Frank Cami, Mark Carlotto and Deborah Neft, Proc. SPIE, Vol.241, July 1980, San Diego.
304. "Accurate Numerical Computation by Optical Convolution", with David Casasent, Deborah Neft and Mark Carlotto, Proc. IOCC SPIE, Vol. 232-57, April, 1980.
305. "Wavelength Diversity: an Extra Dimension in Optical Processing Architectures", with David Casasent, Proc. IOCC SPIE, Vol. 232-40, April 1980.
306. "Classification for Optical Signal Processing Architectures", with David Casasent, Proc. SPIE, Vol. 214-05, 1979
307. "Optical Processors for Adaptive Phased-Array Radar", with David Casasent, B.V.K. Vijaya Kumar and Mark Carlotto, SPIE, Proc., Vol.209, 1979
308. "Parallel Optical Fourier Transform Techniques for Fourier Spectroscopy", with David Casasent, Proc. SPIE, Vol.191, 1979, San Diego, CA.
309. "A General Formulation for New Real-Time Signal Processing Architectures", with Jeff Speiser, Harper Whitehouse and David Casasent, Proc., SPIE., Vol. 201-23, 1979 San Diego, CA.
310. "Optical Pattern Recognition Using Normalized Invariant Moments", with David Casasent, Proc. SPIE, Vol.201, p.107 1979.
311. "Spread-Spectrum Optical Signal Processing", with David Casasent, Proc. EOSD, Conference October, 1979.
312. "New Acousto-Optic Signal Processing Architectures and Applications", with David Casasent and Michael Libby, Proc. SPIE, Vol. 202, p. 186, Aug 1979.
313. "Iterative Optical Processor (IOP) for Adaptive Phased Array Radar Processing", with David Casasent and Mark Carlotto, Proc. SPIE, Vol. 180, p.114, May, 1979.
314. "Conversion in a Residue Arithmetic Based Numerical Optical Processor", with David Casasent, Proc., EOSD Conference p.471, September 1978, Boston, MA.
315. "Optical Signal Processing of Non-Linear Coded Waveforms", with David Casasent, Andrew Sexton, Proc., IOCC, 1978, London, England.

316. "Determination of Linear and Nonlinear Phase Distributions", with David Casasent, Proc. SPIE, Vol. 126, p.32, Aug, 1977.
317. "Space Variant Optical Processors", with David Casasent and Alan Furman, Proc., CLEA Conference June 1977.
318. "New Optical Transforms for Pattern Recognition", with David Casasent, Proc., IEEE, Vol. 65, p.77, Jan., 1977.
319. "Generalized Optical Transformations", with David Casasent and Mark Kraus, Proc. EOSD Conference Nov., 1976.
320. "Mellin Transforms in Optical Data Processing", with David Casasent, Proc., EOSD Conference p.38, Nov., 1975.

PATENTS

1. *Bending compensating device, system and method for optical waveguides*, D Loterie, S Walpen, EEM Delgado, C Moser, D Psaltis, Patent #US 9.964.708 (2018)
2. *Methods and apparatus for imaging with multimode optical fibers*, I Papadopoulos, S Farahi, C Moser, D Psaltis, Patent #US 9,871,948 (2018)
3. *A device and method for increased light transmission through cochlear bone by laser ablation for in situ intracochlear imaging*, D Psaltis, K Stankovic, DB Conkey, M Romito, Patent #WO2017179010 A1, 2017
4. *Optical Proximity Sensing System for Atraumatic Cochea Implant Surgery*, D. Psaltis, Y. Pu, C. Moser, K. Stankovic, Patent #WO 22017060832 A2, April 2017
5. *Second Harmonic Imaging Nanoprobes and Techniques for Use Thereof*, P. Pantazis, Y. Pu, D. Psaltis, JH. Hong, Patent #US 20170082596 A1, March 2017
6. *Membrane-less Electrolyzer*, Mohammad Hashemi, Jae-Woo Choi, Miguel Modestino, Demetri Psaltis, PCT/IB2014/065481, 2016
7. *Water Vapor Microelectrolyzer Cells*, Miguel Modestino, Mohammad Hashemi, Christophe Moser, Demetri Psaltis, PCT/IB2015/052338, 2016
8. *Method and apparatus for a photoacoustic probe using a multimode fiber*, Demetri Psaltis, Christophe Moser, Patent #US 20150265157 A1, September 2015
9. *Ablation device and method for subsurface biological tissue ablation*, Demetri Psaltis, Jae-Woo Choi, Thomas Lanvin, Alexandre Goy, Patent #WO2015097679 A1, July 2015
10. *Methods and apparatus for imaging with multimode optical fibers*, Ioannis Papadopoulos, Salma Farahi, Christophe Moser, Demetri Psaltis, Patent #WO2013144898 A3, January 2014
11. *Coherent anti-stokes raman holography*, Zhiwn Liu, Kebin Shi, Demetri Psaltis, Qinn Xu, Patent # 8,675,201 B2, March 2014
12. *Ablation device and method for subsurface biological tissue ablation*, Demetri Psaltis, Thomas Lanvin, Alexandre Goy, Jae-Woo Choi, Patent #PCT/IB213/061316, December 2013
13. *3-dimensional liquid-repellant structure*, Jae-Woo Choi, David Erickson and Demetri Psaltis, Patent #PCT/IB2013/052983, April 2013
14. *Tissue and cellular imaging*, Konstantina Stankovic, Demetri Psaltis, Xin Yang, Ye Pu and Chia-Lung Hsieh, Patent #WO/2013/063564, May 2013
15. *Surface wave enabled darkfield aperture*, Konstantina Stankovic, Demetri Psaltis, Xin Yang, Ye Pu and Chia-Lung Hsieh, Patent #8,189,204, May 2012
16. *Light filter and method for using such filter*, Andreas Vasdekis, Julien Cuennet and Demetri Psaltis Patent #WO/2012/114164, August 2012
17. *Surface wave enabled darkfield aperture* Xiquan Cui, Xin Heng, Changhuei Yang, Axel Scherer, Demetri Psaltis and Guoan Zheng, Patent #8,189,204, May 2012
18. *Imaging based interferometric pressure sensor*, Wuzhou Song and Demetri Psaltis, Patent #WO/2011/051903, May 2011

19. *On-Chip Phase Microscope/Beam Profiler Based on Differential Interference Contrast and/or Surface Plasmon Assisted Interference*, Xiquan Cui, Xin Heng, Changhui Yang, Axel Scherer, Demetri Psaltis, Patent #7,982,883, July 2011 - Patent #7,768,654, August 2010
20. *Light conductive controlled shape droplet display device*, Demetri Psaltis and Allen Pu Patent #7,826,125, November 2010
21. *Mechanically tunable elastomeric optofluidic distributed feedback dye lasers*, Zhenyu Li, Demetri Psaltis, Axel Scherer and Zhaoyu Zhang, Patent # 7,817,698, October 2010
22. *Method of Nonlinear harmonic holography*, Ye Pu and Demetri Psaltis, Patent #7,813,016, October 2010
23. *Plasmon assisted control of optofluidics*, James Adleman, David A. Boyd, David G. Goodwin and Demetri Psaltis, Patent #7,798,164, September 2010
24. *Optofluidic microscope device featuring a body comprising a fluid channel and having light transmissive regions*, Changhui Yang and Demetri Psaltis, Patent #7,773,227, August 2010
25. *On-chip phase microscope/beam profiler based on differential interference contrast and/or surface plasmon assisted interference*, Xiquan Cui, Xin Heng, Changhui Yang, Axel Scherer and Demetri Psaltis, Patent #7,768,654, August 2010
26. *Optofluidic microscope device*, Changhui Yang and Demetri Psaltis, Patent #7,751,048, July 10
27. *Method and apparatus for implementing a multi-channel tunable filter (2006, 2004)* Demetri Psaltis, Christophe Moser, Greg Steckman, Karsten Buse, Ingo Nee and Joerg Hukriede Patent #7,483,190, January 2009
Patent #7,136,206, November 2006
Patent #6,829,067, December 2004
28. *Method and a system to dispense and detect fluorescent quantum dots*, Demetri Psaltis and Christophe Moser, Patent #7,367,505, May 2008
29. *Ferroelectric nanophotonic materials and devices*, Harry A. Atwater, Kaushik Bhattacharya, Kaushik Dayal, Matthew Dicken, Demetri Psaltis, Axel Scherer and Guruswami Ravichandran, Patent #7,346,248, March 2008
30. *Holographic imaging spectrometer*, Demetri Psaltis, Wenhai Liu, Jose Mumburu and George Barbastathis, Patent #7,158,228, January 2007
31. *Holographic imaging spectrometer*, Wenhai Liu, Jose Mumburu, George Barbastathis, #7,158,228, January, 2007.
32. *Method and apparatus for implementing a multi-channel tunable filter*, Christophe Moser, Greg Steckman, Karsten Buse, Ingo Nee, Joerg Hukriede, #7,136,206, November, 2006.
33. *Apparatus and method of using a thermal design for wavelength division multiplexed holographic filters*, George Panotopoulos, Hung-Te Hsieh, #7,102,803, September 2006.
34. *Tunable holographic drop filter with quasi phase-conjugate filter coupling*, Christophe Moser, Greg Stekman, Karsten Buse, Ingo Nee, Joerg Hukriede, Joseph W. Goodman, #6,987.907, January 2006
35. *Holographic filters for spectroscopic identification of substances*, #6,934,060, August, 2005.
36. *Techniques for writing and reading data on an optical disk which include formation of holographic optical gratings in plural locations on the optical disk*, Tsuen-Hsi Liu, Fai Mok, Gan Zhou, #6,898,167, May, 2005.
37. *Method and apparatus for holographic recording of fast phenomena*, Gregory Steckman, Zhiqen Liu, Theodore Haensch, John Hong, Martin Centurion, #6,862.121, March 1, 2005
38. *Tunable holographic filter*, Karsten Buse, #6,844,946, Jan, 2005.
39. *Method and apparatus for mplementing a multi-channel tunable filter*, Christophe Moser, Greg Steckman, Karsten Buse, Ingo Nee, Joerg Hukriede, #6,829,067, December, 2004.
40. *Adjustable liquid crystal blazed grating deflector*, Xu Wang, #6,587,180, July, 2003.
41. *Biometric combination lock*, Allen Pu, #6373,967, April, 2002.
42. *Apparatus and method for storing and/or reading data on an optical disk*, Tsuen-His Liu, #6,272,095, Aug, 2001.
43. *Biometric Sequence Codes*, Allen Pu, #6,229,906 B1, May, 2001.
44. *Solid state holographic memory*, Gan Zhou, Fai Mok, 6,222,755, April, 2001.

45. *Hybrid aligned liquid crystal display employing a porous material*, Axel Scherer, Jean-Jacques Drolet, #6,208,398, March, 2001.
46. *Non-Volatile holographic storage in doubly-doped photorefractive material*, Karsten Buse, Ali Adibi, #6,157,470, December, 2000.
47. *Compact architecture for holographic systems*, Jean-Jacques Drolet, George Barbastathis, #6,072,608, June, 2000.
48. *Reconfigurable programmable logic devices*, Fai Mok, Jean-Jacques Drolet, #6,057,703, June, 2000.
49. *Solid state holographic memory*, Gan Zhou, Fai Mok #6,055,174, April, 2001.
50. *Method and system to align holographic images*, #5,982,513, Gan Zhou, Fai Mok, Allen Pu, November, 1999.
51. *Non-Volatile Readout of Shift Multiplexed Holograms*, Fai Mok, George Barbastathis, #5,978,112, November, 1999.
52. *Compact Architecture for Holographic Systems*, Jean-Jacques Drolet, George Barbastathis, #5,949,747, September 1999.
53. *Holographic Storage using shift multiplexing*, Michael Levene, Allen Pu, George Barbastathis, #5,949,558, September, 1999.
54. *User identification through sequential input of fingerprints*, Allen Pu, #5,933,515, Aug, 1999.
55. *Conoscopic Systems For Real-Time Corneal Topography*, Christophe Moser, #5,909,270, June, 1999.
56. *Hybrid Aligned Liquid Crystal Display Employing An Anodized Alignment Layer and Method for Fabrication*, Axel Scherer and Jean-Jacques Drolet, #5,880,801, March, 1999.
57. *System and Method for Optically Measuring a Structure* David Marx, #5,880,838, March, 1999.
58. *Spatial Integrating Optical Correlator For Verifying the Authenticity of a Person, Product or Thing*, Bahram Javidi, Fai H. Mok, #5,841,907, November, 1998.
59. *Holographic Storage Using Shift Multiplexing*, Michael J. Levene, Allen Pu, George Barbastathis, #5,671,073, September, 1997.
60. *Holographic memory with angle, spatial out-of-plane multiplexing*, Geoffrey W. Burr, Fai H. Mok, #5,550,779, Aug, 1996.
61. *Method For Holographic Storage using Peristrophic Mutiplexing*, Allen Pu, Kevin Curtis, #5,483,365, Janbuary, 1996.
62. *Optical Memory with Pit Depth Encoding*, David S. Marx, Gabriel Sirat, #5,453,969, September, 1995.
63. *Non-destructive readout mechanism for volume holograms using two wavelengths*, Fai Mok, #5,438,439, Aug, 1995.
64. *Disk-Based Optical Correlator and Method*, Kevin R. Curtis, #5,339,305, Aug, 1994.
65. *Opto-Electronic Morphological Processor*, Jeffrey W. Yu, Tsien-Hsin Chao, Li J. Cheng, #5,263,096, October, 1993.
66. *GaAs-Based Optoelectronic Neurons*, Steven H. Lin, Jae H. Kim, #5,204,521, 04/20/93
67. *Neural Network Quantizer*, Seiji Kobayashi, #5,157,399, October, 1992.
68. *Video Image Processing Apparatus*, Seiji Kobayashi, #5,091,965, Feb, 1992.
69. *Holographic Information Storage System*, Alan Yamamura, Seiji Kobayashi #5,111,445, May, 1992.
70. *Space Variant Signal Processing*, David Paul Cassasent, #4,285,048, Aug, 1991.
71. *Monochromatic Incoherent Light Holography*, Gabriel Sirat, #4,602,844, July, 1986.
72. *Ranging System which Compares an Object-Reflected Component of a Light Beam to a Reference Component of the Light Beam*, John M. McLauchlan, John AuYeung, Aldred F. Tubbs, Willis C. Goss #4,533,242, October, 1984.
73. *Multiple-Invariant Space-Variant Optical Processor*, David Paul Cassasent, #4,308,521, December, 1981.
74. *Positional, Rotational and Scale Invarianth Optical Correlation Method and Apparatus*, David Paul Cassasent, #4, 084,255, April, 1978.
75. *Correlation Methods and Apparatus Utilizing Mellin Transforms*, David Paul Cassasent, #4,073,010, Feb, 1978.

GRADUATED Ph.D. STUDENTS



1. Morteza Hasani, *3D Reconstruction of Optical diffraction tomography based on a neural network model*, 2018
2. Mohammad Hashemi, *Microfluidic energy conversion devices*, 2017
3. Nicolino Stasio, *Multimode fiber optical imaging using wavefront control*, 2017
4. Thomas Lanvin, *Subsurface ablation of tissue by ultrafast laser*, 2017
5. Grégoire Laporte, *Nanoscopy in nonlinear scanning fluorescence imaging systems*, 2016
6. Xin Yang, *Optical Microscopy for Imaging Through Scattering Media*, 2014
7. Julien Cuennet *Integration of liquid crystals molecules in optofluidics*, 2013
8. Ioannis Papadopoulos, *Dynamic control of light transmission through multimode fibers*, 2013
9. Alexandre Goy, *Imaging and Microscopy in Linear and Nonlinear Media Using Digital Holography*, 2013
10. Wuzhou Song, *Development of Elastomeric Optofluidic Devices for Lasing and Sensing*, 2012
11. Chia-Lung Hsieh, *Imaging with Second-Harmonic Generation Nanoparticles*, Assistant research fellow, Institute of Atomic and Molecular Sciences, Academia Sinica, Taiwan, 2011
12. Jae-Woo Choi *Surface optofluidic implementations towards the development of a biosensor*, 2011
13. Jim Adleman, *Plasmonic Nanoparticles for Optofluidic Systems*, 2009
14. Zhenyu Li, *Optofluidic dye lasers*, 2007,
Assistant Professor, George Washington University, Washington DC, USA
15. Mankei Tsang, *Classical and quantum nonlinear optical information processing*, 2006,
Assistant professor, National University of Singapore, Singapore.
16. Martin Centurion, *Study of the nonlinear propagation of femtosecond laser pulses*, 2006,
Assistant Professor, University of Nebraska-Lincoln, Lincoln, Nebraska, USA
17. Hung-Te Hsieh, *Operation of Holographic Elements with Broadband Light Sources*, 2005,
Senior Physicist, Wyatt Technology Corp., Santa Barbara, California, USA
18. Zhiwen Liu, *Optical Information Storage and Processing*, 2002,
Associate Professor, Pennsylvania State University, University Park, Pennsylvania, USA
19. Jose Mumburu, *Optoelectronic Circuits using Holographic Elements*, 2002,
R&D manager, Fractus, Barcelona, Spain.
20. George Panotopoulos, *Holographic Information Systems*, 2002,
Manager, OptiSolar, Hayward, California, USA
21. Yunping Yang, *Holographic recording and dynamic range improvement in Lithium Niobate*, 2002,
Director, Optoelectronics & Nanotechnology, Physical Optics, Corp. Torrance, California, USA.
22. Christophe Moser, *Optical Information Processing*, 2001,
Associate Professor, EPFL, Lausanne, Switzerland.
23. Gregory Steckman, *Holographic Recording in Polymeric Materials with Applications*, 2001,
Program Manager, ViaSat, Carlsbad, California, USA
24. Wenhai Liu, *Holographic Resolution and Its Application in Memory and Imaging*, 2001,
VP of Technology, Advantools, China
25. Joseph Gregory Billock, *Attentional Control of Complex Systems*, 2001,
Software Engineer, Google, Santa Monica, California, USA
26. Xu Wang, *Optoelectronic Devices for Optical Memory Systems*, 2000,
Interferometry & Large Optical Systems J.P.L., Pasadena, California, U.S.A.
27. Ernest Chuang, *Dynamic Copying and Two Wavelength Holography*, 1999,
In-Phase Technology, Longmont, CO.
28. Ali Adibi, *Persistent holographic storage in photorefractive crystals*, 1999,
Professor, Georgia Institute of Technology, Atlanta, Georgia, U.S.A.
29. George Barbastathis, *Holographic Memories and Neural Networks*, 1998,
Professor, Massachusetts Institute of Technology, Cambridge, Massachusetts, U.S.A..

30. Michael Levene, *Shift multiplexing and Holographic Correlators*, 1998, Assistant Professor, Yale University, New Haven, Connecticut, U.S.A.
31. Xin An, *Holographic Random Access Memory*, 1998, Senior MTS J.P.L., Pasadena, California, U.S.A.
32. Allen Pu, *Holographic 3-D disks*, 1997, Portfolio Manager Dimensional Fund Advisors, Santa Monica, California, U.S.A.
33. Jean-Jacques Drolet, *Silicon/Liquid Crystal Devices*, 1997 Desktop Display Module Manager Apple, Inc., Cupertino, California, U.S.A..
34. Jiafu Luo, *Optoelectronic Devices*, 1996, Sr. Director Capso Vision, Inc., Saratoga, California, U.S.A.
35. Geoff Burr, *Holographic Memories*, 1996, Research Staff Member IBM-Almaden, San Jose, California, U.S.A.
36. David Marx, *Superresolution*, 1996, JPL, Pasadena, CA.
37. Subrata Rakshit, *Analysis of Image Sequences using Redundant Representations*, 1994, Scientist, Centre for Artificial Intelligence and Robotics (CAIR), Bangalore, India.
38. Kevin Curtis, *3-D Photopolymer Disks for Correlation and Data Storage and Cross-talk in Volume Holographic Memories*, 1994, Chief Technology Officer, Founder , In-Phase Technologies, Longmont, CO.
39. Annette Grot, *Analog GaAs Optoelectronic Integrated Circuits for Large Scale Arrays*, 1994, Senior Optical Design Engineer Pacific Biosciences, Menlo Park, California, U.S.A.
40. Yong Qiao, *Optical Multilayer Networks*, 1993, Director of Engineering RSA, Boston, Massachusetts, U.S.A.
41. Sidney Li, *Photorefractive Disks for Optical Data Storage and Artificial Neural Networks*, 1993, Optical Engineer, Adaptive Optics Associates, Cambridge, Massachusetts, U.S.A.
42. Chuanyi Ji, *Learning and Generalization in Neural Networks*, 1991, Associate Professor, Georgia Institute of Technology, Atlanta, GA.
43. Steven Lin, *Optoelectronic Neuron Arrays Fabricated in GaAs*, 1991 Simtek Corp, Colorado Springs, Colorado, U.S.A.
44. Alan Yamamura, *Neural Network Control and an Optoelectronic Implementation of a Multilayer Feedforward Neural Network*, 1991, VP, Goldman Sachs, Salt Lake City, Utah, U.S.A.
45. Cheol Hoon Park, *Optical Computing and Higher Order Associative Memories*, 1990, Professor, K.A.I.S.T., Daejeon, Republic of Korea
46. Scott Hudson, *Radar Imaging for Aircraft Identification and Planetary Mapping*, 1990, Professor, Washington State University, Pullman, WA.
47. Mark Neifeld, *Optical Disks in Optical Information Processing*, 1990, Program Manager, Defense Sciences Offices D.A.R.P.A., Arlington, Virginia, U.S.A.
48. Fai Mok, *Optical Networks with Binary Interconnections*, 1989.
49. Ken Hsu, *Optical Neural Computing for Associative Memories*, 1989, Professor, Chiao Tung University, Taiwan.
50. Claire Gu, *Optical Neural Networks using Volume Holograms*, 1989, Professor, University of California Santa Cruz, Santa Cruz, CA.
51. Nabeel Riza, *Novel Acoustooptic Systems for Spectrum Analysis and Phased Array Signal Processing*, 1989, Professor, CREOL, Orlando, FL.
52. David Brady, *Learning in Optical Neural Networks*, 1989, Professor, Duke University, Durham, North Carolina.
53. Jeffrey W Yu, *Optical Processing Using Photorefractive Crystals*, 1988, Instrument Architect for Space Interferometer Mission J.P.L., Pasadena, California, U.S.A.
54. Santosh S Venkatesh, *Linear Maps with Point Rules: Application to Pattern Classification and Associative Memory*, 1987, Associate Professor, University of Pennsylvania, Philadelphia, PA.

55. John H Hong, *Optical Computing for Adaptive Signal Processing and Associative Memories*, 1987,
Vice President of Technology Qualcomm, Inc., San Diego, California, U.S.A.
56. Kelvin H Wagner, *Time and Space Integrating Acousto-Optic Signal Processing*, 1987, Professor,
University of Colorado Boulder, Boulder, CO.
57. Michael W Haney, *Acousto-Optic Time and Space Integrating Processors for Real-Time Synthetic
Aperture Radar Imaging*, 1986,
Professor, University of Delaware, Newark, DE.
58. Hyuk Lee, *Optical Interactions in a Dielectric Material with Multiple Interactions*, 1985,
Professor, Seoul National University, Seoul, Korea.
59. Yaser S Abu-Mostafa, *Complexity of Information Extraction*, 1983,
Professor, Caltech, Pasadena, California, U.S.A.

CURRENT STUDENTS

1. Marilisa Romito
2. Eirini Kakkava
3. Pooria Hasikhani
4. Joowon Lim
5. Giulia Panusa
6. Ahmed Bassam

Prof. Demetri Psaltis. Full Professor Ecole Polytechnique Federale de Lausanne Fellow Member. SPIE Involvement: Retrieving Data, please wait CONTACT DETAILS. Sign In. Sign In to send a private message or view contact details. Upcoming Presentations Most Recent | Show All.  Demetri Psaltis. Quite the same Wikipedia. Just better.  Demetri Psaltis (Greek: Δεμήτριος Ψάλτης, Δεμήτριος Ψάλτης) is a Greek-American electrical engineer and the Dean of the School of Engineering at École Polytechnique Fédérale de Lausanne since 2007.[1] He is also a Professor in Bioengineering and Director of the Optics Laboratory of the EPFL.[2] He is one of the founders of the term and the field of optofluidics.[3] He is also.