

III.4. Refereed Journal Publications (48 papers were published)

K. Ogawa, T. Kato, A. Ikegami, H. Tsuji, N. Aoki, **J. P. Bird**, and Y. Ochiai, “Electrical properties of field-effect transistors based on C60 nano-whiskers”, *Appl. Phys. Lett.* **88**, 112109 (2006).

A. Shailos, **J. P. Bird**, M.P. Lilly, J.L. Reno, and J.A. Simmons, “Spin-polarized transport through a quantum point contact in strongly-quantizing magnetic fields: mimicking the 0.7 scenario”, *J. Phys.: Condens. Matter* **18**, 3277 (2006).

A. Shailos, A. Ashok, **J. P. Bird**, R. Akis, D.K. Ferry, S.M. Goodnick, M.P. Lilly, J.L. Reno, and J.A. Simmons, “Linear conductance of quantum point contacts with deliberately-broken symmetry”, *J. Phys.: Condens. Matter* **18**, 1715 (2006).

B. Naser, J. Heeren, D. K. Ferry, and **J. P. Bird**, “50-Ohm-matched system for low-temperature measurements of the time-resolved conductance of low-dimensional semiconductors”, *Rev. Sci. Instr.* **76**, 113905 (1 – 5) (2005).

L. Mourokh, V.I. Puller, A.Yu. Smirnov, and **J. P. Bird**, “Readout of single spins via Fano resonances in quantum point contacts”, *Appl. Phys. Lett.* **87**, 192501 (1 – 3) (2005).

J. Fransson, J.-F. Lin, L. Rotkina, **J. P. Bird**, and P.A. Bennett, “Signatures of band-like tunneling in granular nanowires”, *Phys. Rev. B* **72**, 113411 (1 – 4) (2005).

V.I. Puller, L.G. Mourokh, **J. P. Bird**, and Y. Ochiai, “Influence of magnetic moment formation on the conductance of coupled quantum wires”, *J. Phys.: Condens. Matter* **17**, 5269 (2005).

J.-F. Song, **J. P. Bird**, and Y. Ochiai, “Nanowire magnetic-memory cell based on a periodic magnetic superlattice”, *J. Phys.: Condens. Matter* **17**, 5263 (2005).

M. Elhassan, **J. P. Bird**, R. Akis, D. K. Ferry, T. Ida, and K. Ishibashi, “Dephasing due to coupling to the external environment in open quantum-dot arrays”, *J. Phys.: Condens. Matter* **17**, L351 (2005).

E. Trybus, G. Namkoong, W. Henderson, S. Burnham, W. A. Doolittle, M. Cheung, and **A. N. Cartwright**, “InN: A material with photovoltaic promise and challenges,” *Journal of Crystal Growth* **288**, 218 (2006).

Z. Tao, E. C. Tehan, R. M. Bukowski, Y. Tang, E. L. Shughart, W. G. Holthoff, **A. N. Cartwright**, **A. H. Titus**, and F. V. Bright, “Templated xerogels as platforms for biomolecule-less biomolecule sensors,” *Analytica Chimica Acta* **564**, 59 (2006).

P.P. Markowicz, V.K. S. Hsiao, H. Tiryaki, **A. N. Cartwright**, P.N. Prasad, K. Dolgaleva, N.N. Lepeshkin, and R.W. Boyd, "Enhancement of third-harmonic generation in a polymer-dispersed liquid-crystal grating," *Appl. Phys. Lett.* **87**, 051102 (2005).

D. W. Lucey, D. J. MacRae, M. Furis, Y. Sahoo, **A. N. Cartwright**, and P. N. Prasad, "Monodispersed InP Quantum Dots Prepared by Colloidal Chemistry in a Noncoordinating Solvent," *Chemistry of Materials*, **17**, pp. 3754 (2005).

W. D. Kirkey, Y. Sahoo, X. Li, Y. He, M. T. Swihart, **A. N. Cartwright**, S. Bruckenstein, and P. N. Prasad, "Quasi-reversible photoluminescence quenching of stable dispersions of silicon nanoparticles," *Journal of Materials Chemistry* **15**, 2028 (2005).

D.S. Kaputa Daniel, N. Kuzmin Andrey, V. Kachynski Aliaksandr, **A.N. Cartwright**, and P.N. Prasad, "Dynamics of multiple trapping by a single-beam laser tweezer," *Applied Optics* **44**, 3963 (2005).

V.K.S. Hsiao, C. Lu, G.S. He, M. Pan, **A.N. Cartwright**, P.N. Prasad, R. Jakubiak, R.A. Vaia, and T.J. Bunning, "High contrast switching of distributed-feedback lasing in dye-doped H-PDLC transmission grating structures," *Optics Express* **13**, 3787 (2005).

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V.K.S. Hsiao, W.D. Kirkey, F. Chen, **A.N. Cartwright**, P.N. Prasad, and T.J. Bunning, "Organic solvent vapor detection using holographic photopolymer reflection gratings," *Advanced Materials (Weinheim, Germany)* **17**, 2211 (2005).

M. Furis, **A.N. Cartwright**, E.L. Waldron, and E.F. Schubert, "Spectral and temporal resolution of recombination from multiple excitation states in modulation-doped AlGaIn/GaN multiple quantum well heterostructures," *Appl.Phys. Lett.* **86**, 162103 (2005).

V.P. Chodavarapu, R.M. Bukowski, S.J. Kim, **A.H. Titus**, **A.N. Cartwright**, and F.V. Bright, "Multi-sensor system based on phase detection, an LED array, and luminophore-doped xerogels," *Electronics Letters* **41**, 1031 (2005).

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Pao-Chun Lin, **Ping-Chin Cheng**, and Hanry Yu, "An engineered micro-environment for multi-dimensional microscopy of live cells," *Scanning* **28** (2006).

H. He and **L.P. Kondi**, “An image super-resolution algorithm for different error levels per frame”, IEEE Transactions on Image Processing **15**, 592 (2006).

L.P. Kondi, D. Srinivasan, **D.A. Pados**, and **S.N. Batalama**, “Layered video transmission over wireless multirate DS-CDMA links”, IEEE Transactions on Circuits and Systems for Video Technology **15**, 1629 (2005).

K.R. Matty and **L.P. Kondi**, “Balanced multiple description video coding using optimal partitioning of the DCT coefficients”, IEEE Transactions on Circuits and Systems for Video Technology **15**, 928 (2005).

L.P. Kondi, “A rate-distortion optimal hybrid scalable/multiple-description video codec”, IEEE Transactions on Circuits and Systems for Video Technology **15**, 921 (2005).

Z. Liu and **D. A. Pados**, “LDPC codes from generalized polygons,” IEEE Transactions on Information Theory **51**, 3890 (2005).

G.N. Karystinos and **D.A. Pados**, “Rank-2-optimal adaptive design of binary spreading codes,” IEEE Transactions on Information Theory, review received Mar. 2006 (revisions requested).

R. Grover, **D.A. Pados**, and M.J. Medley, “Adaptive optimization of binary/ quaternary CDMA signatures in asynchronous multipath environments,” IEEE Transactions on Communications, review received Feb. 2006 (revisions requested).

M. Gkizeli, **D.A. Pados**, and M.J. Medley, “Optimal signature design for spread-spectrum steganography,” IEEE Transactions on Image Processing, review received Nov. 2005 (revisions requested).

H. Ganapathy and **D.A. Pados**, “New bounds on the periodic total squared correlation of binary signature sets and optimal designs,” IEEE Transactions on Communications, review received Apr. 2006 (revisions requested).

L.T. Younkins, **Weifeng Su**, and K.J.R. Liu, “On the robustness of space-time coding techniques based on a general space-time covariance model,” IEEE Transactions on Vehicular Technology **55**, 219 (2006).

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- W. Su** and K.J.R. Liu, "Differential space-frequency modulations via smooth logical channel for broadband wireless communications," *IEEE Transactions on Communications* **53**, 2024 (2005).
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- W. Su**, Z. Safar, and K.J.R. Liu, "Towards maximum achievable diversity in space, time and frequency: performance analysis and code design," *IEEE Trans. on Wireless Communications* **4**, 1847 (2005).
- S. Karri and **A.H. Titus**, "An analog VLSI velocity sensor system for depth perception," to appear in *IEEE Sensors Journal*, November 2006.
- M. Momeni and **A.H. Titus**, "An analog VLSI chip emulating polarization vision of octopus retina" *IEEE Transactions on Neural Networks* **17**, 222 (2006).
- B. Jaiswal and **A.H. Titus**, "A visualization based approach for bump-pad/IO-ball placement and routing in flip-chip/BGA technology," to appear in *IEEE Transactions on Advanced Packaging*, November 2006.
- V.P. Chodavarapu, **A.H. Titus**, and **A.N. Cartwright**, "Differential read-out architecture for CMOS ISFET microsystems," *Electronics Letters* **41**, 698 (2005).
- S. Karri and **A.H. Titus**, "Toward an analog VLSI system for perceiving depth through motion parallax," *Optical Engineering* **44**, 006402 (2005).
- G. Gol'tsman, A. Korneev, I. Rubtsova, I. Milostnaya, G. Chulkova, O. Minaeva, K. Smirnov, B. Voronov, W. Słysz, A. Pearlman, **A. Verevkin**, and R. Sobolewski, "Ultrafast superconducting single-photon detectors for near-infrared-wavelength quantum communications", *Phys. Stat. Sol. (c)* **2**, 1480 (2005).
- A. Korneev, O. Minaeva, I. Rubtsova, I. Milostnaya, G. Chulkova, B. Voronov, K. Smirnov, G. Gol'tsman, A. Pearlman, W. Słysz, A. Cross, P. Alvarez, **A. Verevkin**, R. Sobolewski, "Superconducting single-photon ultrathin NbN film detector", *Quantum Electronics* **35**, 698 (2005).
- A. Pearlman, A. Cross, W. Słysz, J. Zhang, **A. Verevkin**, M. Curie, A. Korneev, P. Kouminov, K. Smirnov, B. Voronov, G. Gol'tsman, and R. Sobolewski, "Gigahertz counting rates of NbN single-photon detectors for quantum communications", *IEEE Trans. on Appl. Supercond.* **15**, 579 (2005).
- A. Korneev, V. Matvienko, O. Minaeva, I. Milostnaya, I. Rubtsova, G. Chulkova, K. Smirnov, B. Voronov, G. Gol'tsman, W. Słysz, **A. Verevkin**, and R. Sobolewski, "Quantum efficiency and noise equivalent power of nanostructured NbN single-photon detectors in wavelength range from visible to infrared", *IEEE Trans. on Appl. Supercond.* **15**, 571 (2005).
- J. Kitaygorsky, J. Zhang, **A. Verevkin**, A. Sergeev, A. Korneev, V. Matvienko, P. Kouminov, K. Smirnov, B. Voronov, G. Gol'tsman, and R. Sobolewski, "Origin of dark

counts in nanostructured NbN single-photon detectors”, IEEE Trans. on Appl. Supercond. **15**, 545 (2005).

J.K.W. Yang, E. Dauler, A. Ferri, A. Pearlman, **A. Verevkin**, G. Gol’tsman, B. Voronov, R. Sobolewski, W.E. Keicher, and K. K. Berggren, “Fabrication development for nanowire GHz-counting-rate single-photon detectors”, IEEE Trans. on Appl. Supercond. **15**, 626 (2005).

D. Wang, **A. Verevkin**, R. Sobolewski, R. Adam, A. Van-der-Hart, and R. Franchy, “Magneto-optical Kerr effect measurements of ultrafast spin dynamics in cobalt nanodots”, IEEE Trans. on Nanotechnology **4**, 460 (2005).

III.6. Invited Conference Publications (total 4)

A.N. Cartwright, “Ultrafast Carrier Dynamics in III-N Materials,” 2006 Materials Research Society Spring Meeting, Solid State Lighting Symposium, 17-21 April 2006.

A.N. Cartwright, “Optical Nanofabrication of Photopolymer Based Photonic Bandgap Structures: Materials and Applications,” NATO-ASI, Orford, Quebec, Canada, 19-29 September 2005.

A.N. Cartwright, “Organic Solvent Vapor Sensing using Porous Photopolymer Photonic Bandgap Structures,” paper 5926-20, Tuning the Optical Response of Photonic Bandgap Structures II, SPIE Annual Conference, San Diego, CA, 31 July – 4 August 2005.

A. Verevkin, “Superconducting Single-Photon Optical Detectors Based on Nanostructured NbN films”, The 9th World Multi-Conference on Systemics, Cybernetics and Informatics, WSCI’05, July 2005, Orlando, FL.

III.7. Contributed Conference Publications (total 51)

J. D. Matyjas, **S.N. Batalama**, M. J. Medley, and B. W. Suter, "Adaptive quadratically-constrained MVDR filtering," in Proceedings 2006 International Conference on Waveform Diversity & Design, Lihue, Hawaii, January 2006.

P. Xiong, **S.N. Batalama**, **D.A. Pados**, and B. Suter, "Downlink multiuser transmit beamforming under total transmit power constraint," in Proceedings IEEE MILCOM '05 - Conference on Military Communications, Atlantic City, NJ, Oct. 2005.

M. Gkizeli, **D.A. Pados**, **S.N. Batalama**, and M.J. Medley, "Blind iterative recovery of spread-spectrum steganographic messages," in Proceedings IEEE ICIP 2005 - International Conf. on Image Proc., Genova, Italy, Sept. 2005, pp. 11-14.

A.N. Cartwright, “CMOS-based Biosensor System Using Integrated Nanostructured Recognition Elements,” SPIE Photonics West Conference, San Jose, CA, 21-26 January 2006.

P.C. Cheng and David B. Walden, "Cuticle of Maize (*Zea mays* L.) Anther," *Microscopy and Microanalysis* **11**, (CD version) (2005).

LiYa Yu and **P.C. Cheng**, "Parallel Beam Optical Tomography," *Microscopy and Microanalysis*, accepted (2006).

LiYa Yu and **P.C. Cheng**, "Optical Tomography," *Scanning* 2006, Washington DC, April 25-27, 2006.

Peyman Arian, Tapio Saramäk and **Adly T. Fam**, "An Alternative Approach for Generating Linear-Phase FIR Filters from IIR-like Filter Blocks in Cascade", *Proceedings of The Third International IEEE-New CAS Conference* pp. 349-352, June 19-22, 2005.

Peyman Arian, Tapio Saramäk and **Adly T. Fam**, "A Decomposition Technique for Cascaded IIR-like Filter Blocks Generating Linear-Phase FIR Filters," *Circuits and Systems*, 2005. ISCAS 2005. *IEEE International Symposium* Vol. 3, pp. 2008 – 2011, 23-26 May 2005.

A. T. Fam and Indranil Sarkar, "Multiplicative Mismatched Filter for Optimum Sidelobe Suppression in Barker Codes," *Signal Processing, Sensor Fusion and Target Recognition XV*, *SPIE Defense and Security Symposium*, Orlando, FL, April 18-21, 2006.

A. T. Fam, Indranil Sarkar, and Khaled A. Almuhareb, "Probabilistic Modeling of Academic Dishonesty via Markov Chains," *2006 ASEE Annual Conference and Exposition*, Chicago, IL, June 18-21, 2006.

M. K. Jubran, M. Bansal, and **L. P. Kondi**, "Optimal Bit Allocation for Hybrid Scalable/Multiple Description Video Transmission over Wireless Channels", in *Proc. SPIE Electronic Imaging Symposium (Video Communications and Image Processing Conference)*, San Jose, CA, January 2006.
Acceptance rate: 60%

A. Mantravadi, M. Bansal, and **L.P. Kondi**, "Robust Transmission of Packet Based H.264/AVC Video with Data Partitioning over DS/CDMA Wireless Channels", in *Proc. SPIE Electronic Imaging Symposium (Video Communications and Image Processing Conference)*, San Jose, CA, January 2006.
Acceptance rate: 60%

V. Seran and **L.P. Kondi**, "Distortion Fluctuation Control for 3D Wavelet Video Coding", in *Proc. SPIE Electronic Imaging Symposium (Video Communications and Image Processing Conference)*, San Jose, CA, January 2006.
Acceptance rate: 60%

M. Bansal, E.S. Pynadath, **L.P. Kondi**, J.D. Matyjas, M.J. Medley, S.P. Reichhart, and K.A. Turck, "Interference Resistant Scalable Video Transmission over DS-CDMA Channels", in *Proc. IEEE MILCOM*, Atlantic City, NJ, October 2005.

G. James and **L.P. Kondi**, "Performance of Practical Wyner-Ziv Video Codec under Flat-Fading Rayleigh Channel", in Proc. IEEE Western New York Image Processing Workshop, Rochester, NY, September 2005 (Best student paper award).

E. S. Pynadath and **L. P. Kondi**, "Joint Source-Channel Coding and Power Control for Video Transmission over Wireless Systems, in Proc. IEEE Western New York Image Processing Workshop, Rochester, NY, September 2005.

V. Seran and **L.P. Kondi**, "Improved Temporal Filtering Scheme to Reduce Delay and Distortion Fluctuation in 3D Wavelet Based Video Coding", in Proc. IEEE Western New York Image Processing Workshop, Rochester, NY, September 2005.

A. Mantravadi, P. Venugopal and **L.P. Kondi**, "Performance Comparison of Auxiliary Vector and RAKE/MF Receiver for Transport of H.264/AVC Video over DS-CDMA Wireless Channels", in Proc. IEEE Western New York Image Processing Workshop, Rochester, NY, September 2005.

H. He and **L.P. Kondi**, "A Regularization Framework for Joint Blur Estimation and Super-Resolution of Video Sequences", in Proc. IEEE International Conference on Image Processing, Genova, Italy, September 2005, Vol. 3, pp. 329-332
Acceptance rate: 46%

S. Bandyopadhyay and **L.P. Kondi**, "Optimal Bit Allocation for Joint Contour-Based Shape Coding and Shape-Adaptive Texture Coding", in Proc. IEEE International Conference on Image Processing, Genova, Italy, September 2005, Vol. 1, pp. 589-592.
Acceptance rate: 46%

V. Seran and **L.P. Kondi**, "3D Based Video Coding in the Overcomplete Discrete Wavelet Transform Domain with Reduced Delay Requirements", in Proc. IEEE International Conference on Image Processing, Genova, Italy, September 2005, Vol. 3, pp. 233-236.
Acceptance rate: 46%

V. Seran and **L.P. Kondi**, "Drift Control in Variable Bitrate Wireless Channels for Scalable Wavelet Based Video Coding in the Overcomplete Discrete Wavelet Transform Domain", in Proc. IEEE International Conference on Image Processing, Genova, Italy, September 2005, Vol. 3, pp. 237-240.
Acceptance rate: 46%

W.J. Sarjeant, "Microgrids and Distributed Architecture," Second Annual International Conference on Power Electronics for Distributed and Co-Generation, June 27-29, 2005, Sheraton Detroit Novi, Detroit, MI.

W.J. Sarjeant, "Inductance, Capacitance, and Resistance of a Surrogate Exploding Wire," 2006 IEEE Power Modulator Conference, Washington, D.C., May 14-18, 2006.

W.J. Sarjeant, “Investigation of Surface Flashover on Dielectrics Enhanced by Excimer Laser Processing,” 2006 IEEE Power Modulator Conference, Washington, D.C., May 14-18, 2006.

W.J. Sarjeant, “Characterization of Exploding Film Plasmas using Emission Spectroscopy,” 2006 IEEE Power Modulator Conference, Washington, D.C., May 14-18, 2006.

W.J. Sarjeant, “Trend Analysis of Controlled Thin Metallization Flashover,” 2005 IEEE Pulsed Power Conference, Monterey, CA, June 13-17, 2005.

W.J. Sarjeant, “Energy Balance of Highly Contaminated Surface Flashover on Thin Films,” 2005 IEEE Pulsed Power Conference, Monterey, CA, June 13-17, 2005.

W.J. Sarjeant, “Partial Discharge Characteristics of Low Kilovolt Class Capacitors,” 2005 IEEE Pulsed Power Conference, Monterey, CA, June 13-17, 2005.

D. Shaw, “Multimedia Instructional Design for Asynchronous Learning in Engineering” C. Y. Yu and D. T. Shaw, Proceedings of 2006 International Mechanical Engineering Education Conference Beijing, China, March 31-April 4, 2006
(<http://files.asme.org/asmeorg/Education/College/9703.pdf>)

D. Shaw, “Fostering Creativity and Innovation in Engineering Students” C.Y. Yu and D.T. Shaw, Proceedings of 2006 International Mechanical Engineering Education Conference Beijing, China, March 31-April 4, 2006
(<http://files.asme.org/asmeorg/Education/College/9726.pdf>)

T. Himsoon, **Weifeng Su**, and K.J.R. Liu, “Differential Modulation for Multi-Node Amplify-and-Forward Wireless Relay Networks,” in Proceedings of IEEE Wireless Communications and Networking Conference (WCNC), Las Vegas, NV, April 3-6, 2006.

T. Himsoon, W.P. Siritwongpairat, **Weifeng Su**, and K.J.R. Liu, “Decode-and-Forward Differential Modulation Scheme with Threshold-Based Decision Combining,” in Proceedings of IEEE Wireless Communications and Networking Conference (WCNC), Las Vegas, NV, April 3-6, 2006.

K.G. Seddik, A.K. Sadek, **Weifeng Su**, and K.J.R. Liu, “Outage Analysis of Multi-Node Amplify-and-Forward Relay Networks,” in Proceedings of IEEE Wireless Communications and Networking Conference (WCNC), Las Vegas, NV, April 3-6, 2006.

W.P. Siritwongpairat, T. Himsoon, **Weifeng Su**, and K.J.R. Liu, “Optimum Threshold-Selection Relaying for Decode-and-Forward Cooperation Protocol,” in Proceedings of IEEE Wireless Communications and Networking Conference (WCNC), Las Vegas, NV, April 3-6, 2006.

W.P. Siritwongpairat, **Weifeng Su**, Z. Han, and K.J.R. Liu, “Employing Cooperative Diversity for Performance Enhancement in UWB Communication Systems,” in Proceedings of IEEE Wireless Communications and Networking Conference (WCNC), Las Vegas, NV, April 3-6, 2006.

W.P. Siriwongpairat, **Weifeng Su**, and K.J.R. Liu, "Multiband UWB System Performance with Random-Clustering Multipath-Rich Fading Channels," in Proceedings of IEEE Wireless Communications and Networking Conference (WCNC), Las Vegas, NV, April 3-6, 2006.

A.K. Sadek, **Weifeng Su**, and K.J.R. Liu, "Clustered Cooperative Communications in Wireless Networks," in Proceedings of IEEE Global Telecommunications Conference (GLOBECOM'05), vol. 3, pp.1157-1161, St. Louis, MO, Nov. 28 - Dec. 2, 2005.

A.S. Ibrahim, A.K. Sadek, **Weifeng Su**, and K.J.R. Liu, "Cooperative Communications with Channel State Information: When to Cooperate?," in Proceedings of IEEE Global Telecommunications Conference, vol. 5, pp.3068-3072, St. Louis, MO, Nov. 28 - Dec. 2, 2005.

T. Himsoon, **Weifeng Su**, and K.J.R. Liu, "Multiband Differential Modulation for UWB Communication Systems," in Proceedings of IEEE Global Telecommunications Conference (GLOBECOM'05), vol. 6, pp.3789-3793, St. Louis, MO, Nov. 28 - Dec. 2, 2005.

W.P. Siriwongpairat, **Weifeng Su**, and K.J.R. Liu, "Characterizing Performance of Multiband UWB Systems Using Poisson Cluster Arriving Fading Paths," in IEEE 6th Workshop on Signal Processing Advanced in Wireless Communications, pp. 246-250, New York, NY, June 5-8, 2005.

A.K. Sadek, **Weifeng Su**, and K.J.R. Liu, "Eigen-Selection Approach for Joint Beamforming and Space-frequency Coding in MIMO-OFDM Systems with Spatial Correlation Feedback," in IEEE 6th Workshop on Signal Processing Advanced in Wireless Communications, pp.565-569, New York, NY, June 5-8, 2005.

A.K. Sadek, **Weifeng Su**, and K.J.R. Liu, "A Class of Cooperative Communication Protocols for Multi-node Wireless Networks," in IEEE 6th Workshop on Signal Processing Advanced in Wireless Communications, pp.560-564, New York, NY, June 5-8, 2005.

S.S. Karri, **A.H. Titus**, E.C. Tehan, Z. Tao, Y. Tang, and F.V. Bright, "Image Analysis for Multi-Analyte Xerogel based Sensor Arrays," Proceedings of the 4th IEEE Conference on Sensors, vol. 1, pp. 373-376, 2005.

V.P. Chodavarapu, **A.H. Titus**, and **A.N. Cartwright**, "CMOS ISFET Microsystem for Biomedical Applications," Proceedings of IEEE Sensors 2005, pp. 109-112, 2005.

V.P. Chodavarapu, D.O. Shubin, R.M. Bukowski, **A.H. Titus**, **A.N. Cartwright**, and F.V. Bright, "CMOS Mixed-Signal Phase Detector for Integrated Chemical Sensor Systems," Proceedings of IEEE Sensors 2005, pp. 1068-1071, 2005.

Y. Quan and **A.H. Titus**, "Toward an Analog VLSI Implementation of a Decision Making Model," Proceedings of the International Joint Conference on Neural Networks, 2005.

A. Verevkin, “Transition-Edge Sensors Based on Superconducting Nanowires”, American Physical Society March Meeting 2006, Baltimore MD, March 2006.

A. Verevkin, “Superconducting Single Photon Detector Based on Ultrathin NbN Film”, The 3rd International Seminar named after Klishko, Moscow, Russia, June 2005.

V.A. Pogrebnyak, **J.J. Whalen**, A.N. Kucukaltun, and K. Bargach, “Tunable Bragg Gap in a Periodically Corrugated Waveguide,” Digest of URSI National Radio Science Meeting, p. 34, Boulder, CO, January 4-7, 2006.

III.8. Books

P.C. Cheng, “Multi-Modality Microscopy”, Eds. H. Yu, P.C. Cheng, Pao-Chun Lin and F. J. Kao, World Scientific Publishing, Singapore, 2006. ISBN: 981-256-533-7