

CUBIN Publications – 2006

Edited Book Publications

Alford, C., Brazil, M. and Lee, D.H., “Optimisation in Underground Mining”, in Handbook on Operations Research in Natural Resources, Dordrecht/Boston/London: Kluwer Academic Publishers in press 2006

Thomas, D., Brazil, M., Lee, D.H. and Wormald, N.C., “Network Modelling of Underground Mine Layout: A Case Study”, International Transactions in Operational Research, in press 2006

Journal Papers

Aktas, D., Bacha, M., Evans, J. and Hanly, S., “Scaling Results on the Sum Capacity of Cellular Networks with MIMO Links”, *IEEE Transactions on Information Theory*, Vol. 52, Issue 7 pp. 3264-3274, July 2006

Alpcan, T., Basar T. and Dey, S., “A Power Control Game Based on Outage Probabilities for Multicell Wireless Data Networks”, *IEEE Transactions on Wireless Communications*, Vol. 5, No. 4, pp. 890-899, April 2006

Andrew, L.L.H.; Hanly, S.V.; Chan, S.; Cui, T., “Adaptive Deterministic Packet Marking”, *IEEE Communications Letters*, Vol. 10, Issue 11, pp. 790-792, November 2006

Attygalle, M., Lim, C. and Nirmalathas, A., “Extending Optical Transmission Distance in Fiber Wireless Links using Passive Filtering in Conjunction with Optimized Modulation”, *Journal of Lightwave Technology*, Vol. 24, pp. 1703-1709, April 2006

Bakaul, M., Nirmalathas, A., Lim, C., Novak, D. and Waterhouse, R.B., “Experimental Characterization of Single and Cascaded WDM Optical Interfaces in a MM-wave Fiber-radio Network”, *IEEE Photonics Technology Letters*, Vol. 18, pp.115-117, January 1, 2006

Bakaul, M., Nirmalathas, A., Lim, C., Novak, D. and Waterhouse, R.B., “Simultaneous Multiplexing and Demultiplexing of Wavelength-interleaved Channels in DWDM Millimeter-wave Fiber-radio Networks”, *Journal of Lightwave Technology*, Vol. 24, pp. 3341-3352, September 2006

Bakaul, M., Nirmalathas, A., Lim, C., Novak, D. and Waterhouse, R.B., “Hybrid Multiplexing of Multiband Optical Access Technologies Towards an Integrated DWDM Network”, *IEEE Photonics Technology Letters*, Vol. 18, pp. 2311-2313, November 1, 2006

Brazil, M., Thomas, D.A. and Weng, J.F., “Locally Minimal Uniformly Oriented Steiner Trees”, *Discrete Applied Mathematics*, 154, pp. 2545-2564, 2006

- Brazil, M., Thomas, D.A., Weng, J.F. and Zachariasen, M., "Canonical Forms and Algorithms for Steiner Trees in Uniform Orientation Metrics", *Algorithmica*, 44, 281-300, 2006
- Cheng, L., Aditya, S., Zhaohui L. and Nirmalathas, A., "Generalized Analysis of Subcarrier Multiplexing in Dispersive Fiber-optic Links using Mach-Zehnder External Modulator", *Journal of Lightwave Technology*, Vol. 24, pp. 2296-2304, June 2006
- Cui, T., Andrew, L. L. H., Zukerman, M. and Tan, L., "Improving the Fairness of FAST TCP to New Flows", *IEEE Communications Letters*, Vol. 10, No. 5, pp. 414-416, May, 2006
- Gopalakrishnapillai, B. S., Premaratne, M., Abramson, D., Lee, K. L., Nirmalathas, A., Lim, C., Shinada, S., Wada, N. and Miyazaki, T., "Analytical Characterization of Pulse Propagation in Polarization-sensitive Semiconductor Optical Amplifiers", *IEEE Journal of Quantum Electronics*, Vol.42, No.10, pp.1062-1077, Oct. 2006
- Hinton, K., Farrel, P., Zalesky, A., Andrew, L. L. H. and Zukerman, M., "Automatic Laser Shutdown Implications for All Optical Data Networks", *IEEE/OSA Journal of Lightwave Technology*, Vol. 24, No. 2, pp. 674-680, February 2006
- Hohn, N. and Darryl Veitch, D., "Inverting Sampled Traffic", *IEEE/ACM Transactions on Networking*, Vol. 14, No. 1, pp. 68-80, 2006
- Kurniawan, T., Nirmalathas, A., Lim, C., Novak, D. and Waterhouse, R., "Performance Analysis of Optimized Millimeter-wave Fiber Radio Links", *IEEE Transactions on Microwave Theory and Techniques*, Vol. 54, No. 2, pp. 921-928, February 2006
- Li, J., Andrew, L. L. H., Foh, C. H., Zukerman M. and Neuts, M., "Meeting Connectivity Requirements in a Wireless Multihop Network", *IEEE Communications Letters*, Vol. 10, No. 1, pp. 19-21, January 2006
- Li, Z., Nirmalathas, A., Bakaul, M., Wen, Y. J., Cheng, L., Chen, J., Lu, C. and Aditya, S., "Performance of WDM Fiber-radio Network using Distributed Raman Amplifier", *IEEE Photonics Technology Letters*, Vol. 18, pp. 553-555, Feb. 15, 2006
- Lim, C., Attygalle, M., Nirmalathas, A., Novak, D., Waterhouse, R., "Analysis of Optical Carrier-to-sideband Ratio for Improving Transmission Performance in Fiber-radio Links", *IEEE Transactions on Microwave Theory and Techniques*, Vol. 54, No. 5, pp. 2181-2187, May 2006
- Lim, C., Nirmalathas, A., Lee, K. L., Novak D. and Waterhouse, R., "Technique to Improve Carrier-to-Interference Ratio of Optical Single Sideband with Carrier Modulated Signals", *Optics Express*, Vol. 14, No. 23, November 2006
- Lim, C., Bakaul, M., Nirmalathas, A., Novak, D. and Waterhouse, R., "Fiber-wireless Networks Incorporating Wavelength Division Multiplexing", *Proceedings of SPIE*, Vol. 6354, APOC 2006
- Lim, C., Lee, K. L., Nirmalathas, A., Novak, D. and Waterhouse, R., "Technique to Improve Carrier-to-interference Ratio of Optical Single Sideband with Carrier Modulated Signals", *Optics Express*, Vol. 14, Issue 23, pp. 11077-11081, 2006
- Liu, A., Pendock, G. J. and Tucker, R. S., "Improved Chromatic Dispersion Monitoring using Single RF Tone", *Optics Express*, Vol 14. pp. 4611-4616, 2006

- Minagar, A., Premaratne, M. and Tran, A. V., "Cost optimal allocation of amplifiers and DCMs in WDM ring networks", *Optics Express*, vol. 14, no. 22, pp. 10278-10291, 30 October 2006
- Nadarajah, N., Wong, E. and Nirmalathas, A., "Implementation of Multiple Secure Virtual Private Networks Over Passive Optical Networks Using Electronic Code Division Multiple Access", *IEEE Photonics Technology Letters*, Vol. 18 (3), pp. 484-486, February 2006
- Nadarajah, N., Wong, E. and Nirmalathas, A., "Packet Labelling Technique Using Electronic Code Division Multiple Access for WDM Packet-based Access Networks", *IEEE Photonics Technology Letters*, vol. 18 (4), pp. 607-609, February 2006
- Nadarajah, N., Wong, E. and Nirmalathas, A., "Automatic Protection Switching and LAN Emulation in Passive Optical Networks" *IEE Electronics Letters*, vol. 42 (3), pp. 171-173, February 2006
- Nadarajah, N., Wong, E. and Nirmalathas, A. "Protection Switching and Local Area Network Emulation in Ethernet Passive Optical Networks", *IEEE/OSA Journal of Lightwave Technology*, Vol. 24, pp. 1955-1967, May 2006
- Nadarajah, N., Wong, E. and Nirmalathas, A., "Multiple Virtual Private Networks over Passive Optical Networks using RF Subcarrier Multiplexing", *IEEE Photonics Technology Letters*, Vol. 18 (19), pp. 2044-2046, October 2006
- Nadarajah, N., Attygalle, M., Wong, E. and Nirmalathas, A., "Novel Schemes for Local Area Network Emulation in Passive Optical Networks with RF Subcarrier Multiplexed Customer Traffic", *IEEE/OSA Journal of Lightwave Technology*, Vol. 23 (10), pp. 2974 – 2983, October 2006
- Novak, A., Taylor, P. and Veitch, D., "The Distribution of the Number of Arrivals In A Subinterval of A Busy Period in a Single Server Queue", *Queueing Systems*, Vol. 53, No. 3, pp. 105-114, 2006
- Papandriopoulos, J., Evans, J.S. and Dey, S., "Outage-based Optimal Power Control for Generalized Multiuser Fading Channels", *IEEE Transactions on Communications*, Vol. 54, No. 4, pp. 693-703, April 2006
- Pendock, G. J. and Shieh, W., "Fast Simulation of WDM Transmission in Fiber", *IEEE Photonics Technology Letters*, Vol. 18, pp. 1639-1641, 2006
- Rosberg, Z., Zalesky, A., Vu H. L. and Zukerman, M., "Analysis of OBS Networks with Limited Wavelength Conversion", *IEEE/ACM Transactions on Networking*, Vol. 14, No. 5, pp. 1118-1127, October 2006
- Rosberg, Z., Zalesky A. and Zukerman, M., "Packet Delay in Optical Circuit-Switched Networks", *IEEE/ACM Transactions on Networking*, Vol. 14, No. 2, pp. 341-354, April 2006
- Rowe, W. S. T., Waterhouse, R. B., "A Multi-layered Proximity Coupled Patch Suitable for MMIC Integration", *Microwave and Optical Technology Letters*, Vol. 48, pp. 1899-1902, 2006
- Shieh, W., "System Penalty due to Polarization-mode-dispersion in the Presence of Fast Polarization Scrambling", *IEE Electronics Letters*, Vol. 42, Issue 1, 5 January, 2006

- Shieh, W., "System Penalty from Second-Order PMD Approximation: Reference Frame Implication", *Journal of Lightwave Technology*, Vol. 24, pp. 3953-3958, 2006
- Shieh, W., Chen, W. and Tucker, R. S., "Polarization Mode Dispersion Mitigation in Coherent Optical Orthogonal Frequency Division Multiplexed Systems", *IEEE Electronics Letters*, Vol. 42, pp. 996-997, 2006
- Shieh, W. and Yi, X., "On Polarization Sensitivity of All-optical Label Swapping Using Synchronous Phase Modulation", *IEEE Photonics Technical Letters*, Vol. 18, pp. 1210-1212, 2006
- Shieh, W., Xi, Y. and Tran, A. V., "A label swapping technique using synchronous phase modulation without wavelength conversion", *Optics Communications*, vol. 264, issue 1, pp. 74-77, 1 August 2006
- Shieh, W., Hui, R. and Yi, X., "Degree-of-Polarization and Eye-closure Penalty Associated with Optical Signals with Orthogonal Polarizations", *IEEE Photonics Technical Letters*, Vol. 18, pp. 1122-1124, 2006
- Tan, L., Zhang, X., Andrew, L. L. H., Chan, S. and Zukerman M., "Price-based Max-Min Fair Rate Allocation in Wireless Multi-hop Networks", *IEEE Communications Letters*, Vol. 10, No. 1, pp. 31-33, January 2006
- Thomas, D.A. and Weng, J.F., "Minimum Cost Flow-dependent Communication Networks", *Networks*, 48(1): pp. 39-46, 2006
- Tran, A., Chae, C. J. and Tucker, R.S., "Cascadability Performance Remote-repeater-based FTTP Systems", *Electronics Letters*, Vol. 42, No. 24, pp.1418-1420, 23 Nov. 2006
- Tran, A., Chae, C. J. and Tucker, R.S., "Feed-forward Control of SOA Gain for Power Equalization in Optical Burst Switching Networks", *Optics Communications*, 2 June 2006
- Tran, A.V., Chae, C. J. and Tucker, R.S., "Low-cost and scalable Passive Optical Network Architecture Using Remote Repeater", *IEEE Electronics Letters*, Vol. 42, No. 10, pp. 587-589, 11 May 2006
- Tran, A.V., Chae, C. J. and Tucker, R.S., "Bandwidth-efficient PON System for Broad-band Access and Local Customer Internetworking", *IEEE Photonics Technology Letters*, Vol. 18, No. 5, pp. 670-672, 2006
- Wang, Y., Zukerman, M. and Harris, R., "PTT Packet Delay Analysis for GPRS/GSM Links", *IEEE Communications Letters*, Vol. 10, No. 6, pp. 456-458, June, 2006
- Wong, E., Nadarajah, N., Chae, C.J., Nirmalathas, A. and Attygalle, S.M., "Improved Passive Optical Network Architectures to Support Local Area Network Emulation and Protection", *Proc. SPIE Vol. 6038, Photonics: Design, Technology, and Packaging II*, pp. 170-178, Jan. 2006
- Wong E. W. M. and Zukerman, M., "Analysis of an Optical Hybrid Switch," *IEEE Communications Letters*, Vol. 10, No. 2, pp. 108-110, February 2006
- Wong, E., Lee, K. L. and Anderson, T., "Low-Cost WDM Passive Optical Network with Directly-modulated Self-seeding Reflective SOA," *Electronics Letters*, Vol. 42 (5), pg. 299-300, March 2006

- Wong, E. and Chae, C. J., "Customer-controlled Dynamic Bandwidth Allocation Scheme for Differentiated Services in Passive Optical Networks", *OSA Journal of Optical Networking*, Vol. 5, Issue 7, pp.541-553, July 2006
- Wong, E. W. M. and Zukerman, M., "Performance Evaluation of an Optical Hybrid Switch With Circuit Queued Reservations and Circuit Priority Preemption", *Optics Express*, Vol. 14, No. 23, pp. 11043-11070, November 2006
- Wong, E., Zhao, X., Chang-Hasnain, C. J., Hofmann, W. and Amann, M. C., "Optically Injection-Locked 1.55 μm VCSEL as Upstream Transmitters in WDM-PONs", *IEEE Photonics Technology Letters*, Vol. 18 (22), pp. 2371-2373, November 2006
- Wong, E. W. M. and Zukerman, M., "Bandwidth and Buffer Tradeoffs in Optical Packet Switching", *IEEE/OSA Journal of Lightwave Technology*, Vol. 24, No. 12, pp. 4790-4798, December 2006
- Xi, Y., Shieh, W. and Tran, A. V., "Cascadability study for optical label swapping using synchronous phase modulation", *IEEE Photonics Technology Letters*, vol. 18, no. 13, pp. 1445-1447, Jul. 1, 2006
- Xi, Y., Chen W. and Shieh, W., "An OSNR Monitor for Optical Packet Switched Networks," *IEEE Photonics Technology Letters*, Vol. 18, No. 13, pp. 1448-1450, July 2006

Conference Papers

- Aktas, E., Evans, J., Hanly, S., "Distributed Base Station Processing in the Uplink of Cellular Networks", Vol. 4, IEEE International Conference on Communications, pp. 1641-1646, June 2006
- Anderson, T.B., Dods, S.D., Wong, E. and Farrell, P.M., "Chromatic Dispersion Distortion Measurement Using Two Tap Asynchronous Sampling", Proc. Optical Fiber Communications Conference, Anaheim, California, USA, paper OWN4, March 2006
- Andrew, L., Hanly, S., "The Estimation Error of Adaptive Deterministic Packet Marking" 44th Allerton Conference on Control, Communication and Computing, Monticello, Illinois, USA, October 2006
- Aquilina, M., Dower, P., Farrell, P. and Hinton, K., "Taking the Physical Layer Seriously in ASTNs", Proc. of Australian Conference of Optical Fibre Technology, ACOFT/AOS 2006, Melbourne, 2006
- Baccelli, F., Machiraju, S., Veitch, D. and Bolot, J., "The Role of PASTA in Network Measurement", Computer Communication Review, Proceedings of ACM Sigcomm 2006, Pisa, Italy, Vol. 36, No. 4, pp. 231-242, 11-15 September, 2006
- Bacha, M., Evans, J., and Hanly, S., "On the Capacity of MIMO Cellular Networks with Macrodiversity" 7th Australian Communication Theory Workshop, pp. 105-109, 1-3 February 2006
- Bacha, M., Evans, J., and Hanly, S., "On the Capacity of Cellular Networks with MIMO links" IEEE International Conference on Communications, Vol. 3, pp. 1337-1342, June 2006

- Bakaul, M., Nirmalathas, A., Lim, C., Novak, D. and Waterhouse, R.B., "Modified WDM Optical Interface for Performance Enhancement of Millimetre-Wave Fibre-Radio Networks", Proc. of Australian Conference of Optical Fibre Technology, ACOFT/AOS 2006, Melbourne, 2006
- Brazil, M., Smith, J.M., Thomas, D.A. and Weng, J.F., "Quasi-indicators and Optimal Steiner Topologies on Four Points in Space", Seventeenth Australasian Workshop on Combinatorial Algorithms (AWOCA 2006), Uluru and King's Canyon, Australia, July 2006
- Chae, C. J., Jayasinghe, T. and Tucker, R. S., "Multi-wavelength Ethernet passive optical network", Chitose International Forum, Chitose, Japan, 27-28 Nov. 2006 (*invited Talk*)
- Chae, C.J., Jayasinghe, T. and Tucker, R.S., "Cost-effective upgrade of TDM-based passive optical network systems using multiple wavelengths," Proc. of Chitose International Forum (CIF), pp. 29-30, Chitose, Japan, Nov. 2006 (invited talk)
- Chen, L., Krongold, B. and Evans, J., "Adaptive Resource Allocation Algorithm for Multiuser OFDM", Proceedings of the 2006 Australian Communications Theory Workshop (AusCTW), Perth, pp. 141-145, February 2006
- Chen, L., Krongold, B. and Evans, J., "A Computationally Efficient Adaptive Resource Allocation Algorithm for Multiuser OFDM", Proceedings of the 2006 European Wireless Conference, Athens, Greece, April 2006
- Chen, W., Buchali, F., Shieh, W., Yi, X., Evans, J. S. and Tucker, R. S., "Viterbi Equalizer for Chromatic Dispersion and PMD Mitigation in DPSK and DQPSK Systems at 10 Gb/s", Proceedings of the 32nd European Conference on Optical Communication (ECOC 2006), Cannes, France, 24-28 Sept., 2006
- Chen, W., Buchali, F., Shieh, W., Yi, X., Evans, J. S. and Tucker, R. S., "PMD Mitigation at 10 Gb/s Using Viterbi Equalizer for DPSK and DQPSK Modulation Formats", Proceedings of the Australian Conference on Optical Fibre Technology (ACOFT 2006), Melbourne, Australia, 10-13 July, 2006
- Corell, E., Saxholm, P. and Veitch, D., "A User Friendly TSC Clock", Passive and Active Measurement Conference (PAM2006), Adelaide, Australia, 30-31 March, 2006
- Das, G., Tucker, R., Leckie, C. and Hinton, K., "Output-Buffered All Optical Packet Switch", 5th International Conference on the Optical Internet (COIN), Cheju Island, Korea, July 2006
- Dey, S. and Evans, J.S., "Outage capacity and optimal power allocation for multiple time-scale parallel fading channels", CD-ROM Proc. European Wireless Conference 2006 (7 pages), February 2006
- Farrell, P., Dower, P. and Hinton, K., "Transient Control in ASONS", ATNAC 2006, Melbourne, Australia, December 2006
- Gamage, P. A., Nirmalathas, A., Lim, C., Bakaul, M., Novak, D. and Waterhouse, R., "Wavelength Reuse Upstream Transmission Scheme for AWG-Based DWDM Millimeter-Wave Fiber-Radio Systems", Asia Pacific Topical Microwave Photonics Conference (AP-MWP 2006), pp. 47-50, 2006

- Gamage, P. A., Nirmalathas, A., Lim, C., Novak, D. and Waterhouse, R., "Improved Power Budget for Uplink Transmission Using SOA for Fiber-Radio Systems", ACOFT/AOS, pp. 42- 44, 2006
- Gopalakrishnapillai, B. S., Nirmalathas, A., Lim, C. and Premaratne, M., "Carrier-density evolution in Polarization-sensitive Semiconductor Optical Amplifiers", Proc. Numerical Simulation of Optoelectronics Devices 2006, paper WA4, Singapore, 2006
- Gopalakrishnapillai, B. S., Premaratne, M., Abramson, D., Nirmalathas, A. and Lim, C., "Pulse Propagation in Polarization-sensitive Semiconductor Optical Amplifiers", Proc. Joint International Conferences on Optical Internet and Next Generation Network 2006, paper P1194, Jeju, Korea, 2006
- Gopalakrishnapillai, B. S., Lee, K. L., Lowery, A. J., Premaratne, M., Shinada, S., Wada, N., Miyazaki, T., Nirmalathas, A. and Lim, C., "Experimental Demonstration of a Simple Time-of-Flight Rangefinder Based on a Semiconductor Optical Amplifier", Proc. Optical Fiber Communications Conference 2006, paper OTuL5, Anaheim, USA, March 2006
- Gopalakrishnapillai, B. S., Lee, K. L., Lim, C., Shinada, S., Wada, N. and Miyazaki, T., "Polarization and Bit-Length Independent All-Optical Logic Gate Based Active Correlator for Bit Serial Label processing", Proc. Optical Fiber Communications Conference 2006, paper OThS5, Anaheim, USA, March 2006
- Halgamuge, M. N., Kotagiri, R. and Zukerman, M., "High Powered Cluster Heads for Extending Sensor Network Lifetime", Proceedings of 6th IEEE International Symposium on Signal Processing and Information Technology, ISSPIT'06, Vancouver, Canada, 27-30 August 2006
- Halgamuge, M. N., Kotagiri, R., Vu, H. L., and Zukerman, M., "Evaluation of Handoff Algorithms Using a Call Quality Measure with Signal Based Penalties", Proceedings of IEEE Wireless Communications and Networking Conference, WCNC'06, Las Vegas, Nevada, USA, 3-6 April 2006
- K. Hinton, "Species of DPSK & DQPSK", ACOFT 2006, Melbourne, Australia, July 2006
- Hinton, K. and Farrell, P., "Optical Power Constraints in Future All-Optical Networks", ATNAC 2006, Melbourne, Australia, December 2006
- Hofmann, W., Gohm, G., Ortsiefer, M., Wong, E. and Amann, M.C., "Uncooled High-Speed 1.55 um VCSELs for CWDM Access Networks", IEE European Conference on Optical Communications (ECOC), postdeadline paper Th4.5.4, Cannes, France, September 2006
- Huang, M. and Dey, S., "Joint Rate/Power Adaptation and Buffer Management in Wireless Data Relay Networks", Proc. 2006 American Control Conference, pp. 6097-6102, Minneapolis, USA, June 2006
- Jayasinghe, T., Chae, C. J., and Tucker, R.S., "Multi-wavelength Ethernet PON with RSOA based upstream modulators", Proc. of OECC, paper 5E3-4, Kaohsiung, Taiwan, 3-7 July 2006 (*best student paper*)
- Jayasinghe, T., Chae, C. J. and Tucker, R. S., "Bandwidth-efficient protection scheme for passive optical networks", COIN 2006, paper. MoB2-6, Jeju Island, Korea

- Jayasinghe, T., Chae, C. J. and Tucker, R. S., "Delivery of surveillance video signals over repeater-based PON through subcarrier multiplexed upstream channel", ECOC 2006, paper We3.P156, pp. 433-434, Cannes, France
- Khanal, M., Chae, C.J. and Tucker, R.S., "A novel WDM-TDM passive optical network with video broadcasting capability using a reflective semiconductor optical amplifier", Proc. of OECC, paper 5E2-3, Kaohsiung, Taiwan, 3-7 July 2006
- Khanal, M., Chae, C. J. and Tucker, R. S., "Subscription-based video broadcasting over a WDM passive optical network using a reflective semiconductor optical amplifier", ECOC 2006, paper Tu3.5.2, pp. 91-92, Cannes, France, 2006
- Krongold, B., "PAAR Reduction in the Uplink for OFDMA Systems", Proceedings of the 2006 IEEE Workshop on Signal Processing Advances in Wireless Communications (SPAWC), Cannes, France, July 2006
- Krongold, B., "Optimal MIMO Loading with Power Constrained Antennas", Proceedings of the 2006 IEEE Personal, Indoor, Mobile, and Radio Communications (PIMRC) Conference, Helsinki, Finland, September 2006
- Lee, K. L., Wong, E., Lim, C. and Nirmalathas, A., "All-Optical Clock Extraction Using a Reflective SOA-based Ring Laser," Proc. Asia-Pacific-Microwave Photonics Conference 2006, paper P-16, International Conference Center, Kobe, Japan, April 2006
- Lee, K.L., Nirmalathas, A., Shinada, S., Wada, N. and Miyazaki, T., "Cascaded Nonlinear Interactions for Photonic Time and Wavelength Switch constructed using a Fiber Loop Interferometer Incorporated with a PPLN Waveguide", CLEO 2006, CThW2, Long Beach Convention Center, Long Beach, USA, May 2006
- Lee, K.L., Nirmalathas, A., Lim, C. and Chae, C.J., "Photonic pre-processing of optical labels by multiwavelength sampling in an electro-absorption modulator", Proc. of OECC, paper 5A2-2, Kaohsiung, Taiwan, 3-7 July 2006
- Lee, K.L., Nirmalathas, A., Lim, C. Shinada, S., Wada, N. and Miyazaki, T., "Optical WDM Channel Extraction using PPLN Fiber Loop Interferometer", COIN 2006, Jeju, Korea, July 2006
- Lee, K.L., Nirmalathas, A., Lim, C. Shinada, S., Wada, N. and Miyazaki, T., "Optically Controlled Time and Wavelength Switch Using Cascaded Nonlinearities of a PPLN Waveguide in a Fibre Loop Interferometer", ACOFT 2006, Melbourne, Australia, July 2006
- Lee, K.L., Nirmalathas, A., Lim, C. and Chae, C.J., "Photonic Pre-processing of Optical Labels by Multi-wavelength Sampling in an Electro-absorption Modulator" OECC 2006, Kaohsiung, Taiwan, Jul. 2006
- Lee, K. L. and Wong, E., "Directly-modulated Self-seeding Reflective SOAs in WDM-PONs: Performance Dependence on Seeding Power and Modulation Effects", IEE ECOC, paper Tu4.5.2, Cannes, France, September 2006
- Lee, K.L. and Wong, E., "Simultaneous Label Erasure and Rewriting using a single RSOA with DPSK/ASK Optical Label Switching", IEEE Annual Meeting of LEOS, paper ThP2, Montreal, Oct 2006

Li, J.C.F. and Dey, S., "Lifetime optimization for wireless sensor networks with outage probability constraints", CD-ROM Proc. European Wireless Conference 2006 (7 pages), February 2006

Li, J.C.F. and Dey, S., "Lifetime Optimization for Multi-hop Wireless Sensor Networks with Rate-Distortion Constraints", CD-ROM Proc. Seventh IEEE International Workshop on Signal Processing Advances in Wireless Communications (5 pages), July 2006

Li, J., Hinton, K., Dods, S., Farrell, P., "Automatically Switched Optical Network Path Selection Using Eye Closure Penalty", ATNAC 2006, Melbourne, Australia, December 2006

Lim, C., Nirmalathas, A., Lee, K. L., Novak D. and Waterhouse, R., "Carrier-to-Interference Ratio Improvement for Optical Single Sideband with Carrier Modulated Signals in Fiber-Radio Systems", OECC 2006, Kaohsiung, Taiwan, July 2006

Lim, C., Nirmalathas, A., Lee, K. L., Novak D. and Waterhouse, R., "Reduction of Third-Order Intermodulation Distortions for Optical Single Sideband Modulated Signals," ECOC 2006, Cannes, France, Sept. 2006

Lim, C., Bakaul, M., Nirmalathas, A., Novak D. and Waterhouse, R., "Fiber-wireless Incorporating Wavelength-division Multiplexing", Asia-Pacific Optical Communications (APOC) 2006, Gwangju, Korea, Sept. 2006 (*Invited*)

Lim, C., Nirmalathas, A., Lee, K. L., Novak D. and Waterhouse, R., "Dynamic Range Improvement for Transmission of Optical Single Sideband Signals with Simultaneous Baseband Transmission for Access Networks", MWP2006, France, Oct. 2006

Lim, C., Lee, K. L., Nirmalathas, A., Novak D. and Waterhouse, R., "Investigation of Intermodulation Distortion Reduction Technique for Multi-Channel Fiber-Radio Transmission in Heterogeneous Access Networks", LEOS2006, paper TuM1, Montreal, Canada, November 2006

Machiraju, S. and Veitch, D., "A Measurement-Friendly Network (MFN) Architecture", Proceedings of ACM SIGCOMM Workshop on Internet Network Management (INM), Pisa, Italy, pp. 53-58, 11-15 September, 2006

Mughal, S., Tucker, R. and Hinton, K., "A Taxonomy of Optical Buffer Architectures", 5th International Conference on the Optical Internet (COIN), Cheju Island, Korea, July 2006

Nadarajah, N., Wong, E. and Nirmalathas, A., "Performance analysis of E-CDMA Signaling in WDM Packet Networks", IEEE Opto-Electronics and Communication Conference (OECC), Kaohsiung, Taiwan, July 2006

Nadarajah, N., Wong, E. and Nirmalathas, A., "Virtual Private Networks Over Passive Optical Networks Using Subcarrier Multiplexing", IEEE Opto-Electronics and Communication Conference (OECC), Kaohsiung, Taiwan, July 2006

Nadarajah, N., Wong, E., Nirmalathas, A., "Scalability Analysis of Electronic Code Division Multiple Access-based Virtual Private Networks over Passive Optical Networks", 5th International Conference on the Optical Internet (COIN), Cheju Island, Korea, July 2006

Nadarajah, N., Wong, E., Nirmalathas, A., "Upstream Transmission and Local Networking in Ethernet Passive Optical Networks Using Single RSOA", 5th

International Conference on the Optical Internet (COIN), Cheju Island, Korea, July 2006

Nadarajah, N., Wong, E. and Nirmalathas, A., “Upstream Transmission and Local Area Network Emulation in PONs using a Single Wavelength Seeded RSOA”, IEEE Annual Meeting of LEOS, paper WEE2, Montreal, Oct 2006

Nadarajah, N., Tran, A. V., Chae, C. J. and Nirmalathas, A., “Economic analysis of repeater-based optical access network architecture”, Australian Telecommunication Networks and Applications Conference ATNAC’2005, Melbourne, Australia, December 2006

Nirmalathas, A., Nadarajah, N., Wong, E., Attygalle, S.M. and Chae, C.J., “Automated Protection and Switching in Passive Optical Network Architectures”, Invited Paper, 5th International Conference on the Optical Internet (COIN), Cheju Island, Korea, July 2006

Nirmalathas, A., Nadarajah, N., Wong, E., Attygalle, M. and Chae, C.J., “Automatic Protection and Switching in Passive Optical Network Architectures”, COIN 2006, paper TuB2-1, Jeju Island, Korea (*invited paper*)

Nirmalathas, A., Tran, A. V., Nadarajah, N., Chae, C. J. and Tucker, R. S., “PON Repeater-based Fiber to the Premises”, FTTH Council – Asia Pacific Workshop, Tokyo, Japan, July 2006 (*Invited talk*)

Park, C., Shen, H., Hernandez-Campos, F., Marron, J.S. Veitch, D., “Capturing the Elusive Poissonity in Web Traffic”, IEEE Conference on Measurement and Simulation of Computer and Telecommunication Systems (MASCOTS), Monterey, California, 11-13 September, 2006

Papandriopoulos, J. Dey, S. and Evans, J.S., “Distributed Cross Layer Optimization of MANETs in Composite Fading”, Proc. IEEE International Conference on Communications (ICC), vol.9 pp. 3879-3884, Istanbul, Turkey, June 2006

Papandriopoulos, J. and Evans, J. S., “Low-complexity Distributed Algorithms for Spectrum Balancing in Multi-user DSL Networks”, IEEE Int. Conf. on Comm., Istanbul, Turkey, June 2006

Pendock, G. J., Shieh, W., “Rapid Calculation of Cross-phase Modulation in WDM Systems”, The Joint International Conferences on Optical Internet and Next Generation Networking (COIN-NGNCON 2006), WeB3- 4, Jeju, Korea, July 2006

Pendock, G. J., “Effect of Modulator Chirp on Ultra-Long Haul Transmission with NRZ”, *Australian Telecommunications Networks and Applications Conference (ATNAC 2006)*, Melbourne, December 2006

Ridoux, J., Veitch, D. and Nucci, A., “Seeing the difference in IP traffic: Wireless versus Wireline”, Proceeding of INFOCOM 2006, Barcelona, Spain, 23-29 June, 2006

Ridoux, J., Kassar, M., Boc, M., Fladenmuller, A. and Viniotis Y., “Performance of Taroko, a Cluster-based Addressing and Routing scheme for Self-Organized Networks”, Proceedings of ACM International Wireless Communications and Mobile Computing Conference, IWCMC 2006, Vancouver, Canada, 3-6 July, 2006

Shieh, W., Hui, R. and Yi, X., “Symmetry Study for Optical Signals with Orthogonal Polarizations”, Conference on Optical Fiber Communications (OFC), USA, paper OWI53, March 2006

- Shieh, W. and Athaudage, C., "System Performance of Coherent Optical Orthogonal Frequency Division Multiplexing", OSA Topical Meeting, Coherent Optical Technologies and Applications, paper CWC5, Whistler, Canada, June, 2006
- Shieh, W., Tucker, R. S., Chen, W. and Yi, X., "Optical Performance Monitoring Through Channel Estimation by Receiver Signal Processing", European Conference on Optical Communication (ECOC), France, paper We3.P.104, Sept. 2006
- Shieh, W., "Is polarization mode dispersion a detriment or benefit?", Proceedings of the European Conference on Optical Communication, paper Th2.5.2, Cannes, France, September 2006
- Smith J. M., Brazil, M., Weng, J.F. and Thomas, D., "Quasi-indicators and Optimal Steiner Topologies on Four Points in Space", 17th Australian Workshop on Combinatorial Algorithms, Alice Springs, pp. 54-66, 2006
- Shu, F., Sakurai, T., Vu H. and Zukerman, M., "Framework to Minimize Energy Consumption for Wireless Sensor Networks", In Proceedings of IEEE GLOBECOM, San Francisco, California, 2006
- Shu, F., Sakurai, T., Vu H. and Zukerman, M., "Does a WSN MAC Based on Uniform Access without Re-attempts Have Merits?", In Proceeding of IEEE TENCON, Hong Kong, 2006
- Shu, F., Sakurai, T., Vu H. and Zukerman, M., "Optimizing the IEEE 802.15.4 MAC", In Proceeding of IEEE TENCON, Hong Kong, 2006
- Shu, F., Ouveysi I. and Zukerman, M., "Joint Topology Control and Path-Oriented Protection in Free Space Optical Networks", Proceeding of ATNAC 2006, Melbourne, Australia, pp. 348-352, December 2006
- Sun, J., Chan, S., Ko, K.T., Chen, G. and Zukerman, M., "Neuron PID: A Robust AQM Scheme", Proceeding of ATNAC 2006, Melbourne, Australia, pp. 259-262, December 2006
- Sutharshan, R, Leckie, C, Palaniswami, M. and Bezdek J, "Distributed Anomaly Detection in Wireless Sensor Networks", IEEE International Conference on Communications Systems (IEEE ICCS), Singapore, October 2006
- Thanabalasingham, T., Hanly, S. V., Andrew, L. H. and Papandriopoulos, J., "Joint Allocation of Subcarriers and Transmit Powers in a Multiuser OFDM Cellular Network," IEEE Int. Conf. on Comm., Istanbul, Turkey, pp. 269-274, June 2006
- Tran, A. V., Chae, C. J. and R.S. Tucker, "Cost-effective Fiber-to-the-home System Using Remote Repeater", Proc. of OFC, paper OFE7, Anaheim, USA, 2006
- Tran, A. V., Chae, C. J. and Tucker, R.S., "Jitter Performance of Cascaded Remote-repeater-based FTTP Systems", Proc. of OECC, paper 4E2-6, Kaohsiung, Taiwan, 3-7 July 2006
- Tran, A. V., Chae, C. J. and Tucker, R. S., "Demonstration of Repeater-Based Access Network Using VCSEL Transmitters and Multi-mode Fibers", The Joint International Conferences on Optical Internet and Next Generation Network COIN-NGNCON 2006, paper WeB2-4, Jeju, Korea, July 2006
- Tran, A. V., Chae, C. J. and Tucker, R. S., "Low-Cost Optical Access System using Repeater, VCSEL Transmitters and Multi-mode Fibers", *European Conference on Optical Communication ECOC 2006*, paper We4.5.2, Cannes, France, Sep. 2006

- Tran, A. V., Chae, C. J. and Tucker, R. S., "Use of Remote Repeater, VCSEL Transmitters, and Multimode Fibres for Low-cost Optical Access Systems", ECOC 2006, paper We4.5.2, pp. 523-524, Cannes, France, 2006
- Tran, A. V., Chae, C. J. and Tucker, R.S., "Demonstration of Repeater-based Access Network using VCSEL Transmitters and Multimode Fibers", COIN 2006, paper. WeB2-4, Jeju Island, Korea, 2006
- Varma, A.R., Athaudage, C., Andrew, L.L.H. and Manton, J.H., "Optimal Superimposed Pilot Training for OFDM Channel Estimation", Proc. Signal Processing Advances in Wireless Communications, July 2006
- Varma, A.R., Athaudage, C., Andrew, L.L.H. and Manton, J.H., "Phase Noise Compensation for OFDM WLAN Systems Using Superimposed Pilots", Proc. International Conference on Communication Systems, October 2006
- Veitch, D., "Semi-experiments, a Traffic Model, and what you can do with it", The AMSI/MASCOS Australian Postgraduate Workshop on Stochastic Processes and Modelling, University of Melbourne, 12-15 February, 2006
- Veitch, D., "Generalising Fractional Brownian Motion in Discrete Time: a Surprising Self-similarity", Financial Integrity Research Network Workshop on Fractional Brownian Motion: Mathematical Theory and Applications in Finance, School of Mathematics, University of New South Wales, Sydney, 20-21 February, 2006
- Veitch, D., "Reflections on an Inherent Problem", Intimate 2006, Network Anomaly Diagnosis Workshop, Carré des Sciences, Paris, France, 6-7 July, 2006
- Weng, J.F., Smith J., MacGregor, Brazil, M. and Thomas, D.A., "Quasi-indicators and Optimal Steiner Topologies on Four Points in Space", Proc. AWOCA2006, pp. 54-66. 2006
- Weng, J.F., "An Improvement to a Geolocation Algorithm in Wireless Sensor Networks", Proc. ICWMMN2006, pp. 85-88, 2006
- Wong, E., Lee, K. L. and Anderson, T., "Directly-Modulated Self-Seeding Reflective SOAs as Colorless Transmitters for WDM Passive Optical Network," in Proc. Optical Fiber Communications Conference, Anaheim, California, USA, Postdeadline paper PD49, March 2006
- Wong, E., Chang-Hasnain, C.J., Zhao, X., Hofmann, W. and Amann, M.C., "Uncooled, Optical Injection-Locked 1.55 mm VCSELs for Upstream Transmitters in WDM-PONs", in Proc. Optical Fiber Communications Conference, Anaheim, California, USA, Postdeadline paper PD50, March 2006
- Wong, E., Zhao, X., Chang-Hasnain, C.J., Hofmann, W. and Amann, M.C., "Extinction Ratio Dependence of 1.55 um VCSELs Injection-locked by Downstream Signals in a WDM-PON", IEE ECOC, paper We3.P.161, Cannes, France, September 2006
- Yi, X., Shieh, W. and Tran, A. V., "Multi-hop Optical label Swapping using Synchronous Phase Modulation", Conference on Optical Fiber Communications (OFC), USA, paper JThB53, March 2006
- Yi, X., Buchali, F., Chen, W. and Shieh, W., "Adaptation Algorithms for Receiver Based Electronic Dispersion Equalization", Australian Conference on Optical Fiber Technology (ACOFT), paper 140Mon, July 2006