

ROBERT D. DOVERSPIKE

PUBLICATION LIST

JOURNALS, BOOKS, CONFERENCES (WITH PUBLISHED PROCEEDINGS)

- Doverspike, R. D., C. E. Lemke, "A Partial Characterization of a Class of Matrices Defined by Solutions to the Linear Complementarity Problem," **Mathematics of Operations Research**, Vol. 7 (2), 1982, pp. 272-294.
- Doverspike, R. D. , "Some Perturbation Results for the Linear Complementarity Problem," **Mathematical Programming**, Vol. 23 (2), 1982, pp. 181-192.
- Doverspike, R. D. , "Multiplex Bundler Algorithms for the Network Planning System," Proceedings of 3rd International Network Planning Symposium (Networks'86), Innisbrook, Florida, June, 1986, pp. 29-32.
- Doverspike, R. D. , "A Terminal Bay Relief Strategy," **Probability in the Engineering and Informational Sciences**, Vol. 1, 1987, pp. 481-496.
- Sen, S., R. D. Doverspike, S. I. Vohnout, "Diverse Routing in the Unified Facilities Optimizer," Proceedings of **GLOBECOM '89**, pp. 9.5.1 - 9.5.4., Dallas, Texas, November 1989.
- Sen, S., R. D. Doverspike, M. S. Dunatunga, "Unified Facilities Optimizer," University of Arizona Department of Systems and Industrial Engineering Technical Report, January 1989.
- Doverspike, R. D. , "Algorithms for Multiplex Bundling in a Telecommunications Network," **Operations Research**, Vol. 39 (6), 1991, pp. 925-944.
- Doverspike, R. D. , "A Multi-layered Model for Survivability in Intra-LATA Transport Networks," Proceedings of **GLOBECOM '91**, pp. 2025-2031, Phoenix, Arizona, December 1991.
- Doverspike, R. D., C. D. Pack, "Using SONET for Dynamic Bandwidth Management In Local Exchange Networks," Proceedings of 5th International Network Planning Symposium (**Networks'92**), Kobe Japan, May 1992, pp. 73-78.
- Wilson, B. J., R. D. Doverspike, "A Network Control Architecture for Bandwidth Management," Proceedings of **ICC'92**, Chicago, Illinois, June 1992, pp. 347.2.1-347.2.7.
- Kane-Esrig, Y., G. Babler, R. Clapp, R. Doverspike, et. al., "Survivability Risk Analysis and Cost Comparison of SONET Architectures," Proceedings of **GLOBECOM '92**, pp. 841-846, Orlando, Florida, December 1992.
- Castaldo, P. J., V. P. Chaudhary, R. D. Doverspike, B. J. Wilson, "A Better Path to Bandwidth Management," **Belcore Exchange**, March/April 1992, pp.14-18.
- Doverspike, R. D., V. Jha, "Comparison of Routing Methods for DCS-Switched Networks," **Interfaces**, Special Issue on Telecommunications, Vol. 23 (2), 1993, pp. 21-34.
- ANSI Committee T1, "A Technical Report on Network Survivability Performance," T1A1.2 Technical Report T1A1.2/93-001R2, August 13, 1993. [I was principal contributor]
- Doverspike, R. D., J. Morgan, W. Leland, "Network Design Sensitivity Studies for Use of Digital Cross-Connect Systems in Survivable Network Architectures," **IEEE Journal of Selected Areas in Communications (JSAC)**, Issue on Integrity of Public Telecommunication Networks, Vol. 12 (1), 1994, pp. 69-78.

- Doverspike, R. D., B. J. Wilson, "Comparison of Capacity Efficiency of DCS Network Restoration Routing Techniques," **Journal of Network and Systems Management**, Vol. 2 (2), 1994, pp. 95-123.
- Krishnan, K., R. D. Doverspike, C. D. Pack, "Unified Models of Survivability for Multi-Technology Networks," in Fundamental Role of Teletraffic in the Evolution of Telecommunications Networks (J. Labetoulle, J. W. Roberts, eds.), Proceedings of (**ITC-14**), Elsevier, Antibes Juan-les-Pins, France, June 1994, pp. 655-666.
- Sen, S., R. D. Doverspike, S. Cosares, "Network Planning with Random Demand," **Telecommunications Systems**, Vol. 3 (1), 1994, pp. 11-30.
- Krishnan, K., R. D. Doverspike, C. D. Pack, "Improved Survivability with Multi-Layer Dynamic Routing," **IEEE Communications Magazine**, Vol. 33 (7), July 1995, pp. 62-69.
- Doverspike, R. D., M. Maeda, S. Narain, et. al., "Network Management Research in ATDNet," **IEEE Network Magazine**, July/August 1996, pp. 30-41.
- Doverspike, R. D., "Trends in Layered Network Management of ATM, SONET, and WDM Technologies For Network Survivability and Fault Management," **Journal of Network and Systems Management**, Vol. 5 (2), 1997, Special issue on Fault Management.
- Cooper, R. , R. Doverspike (Eds.), "Select Proceedings of the Third INFORMS Telecommunications Conference," **Telecommunications Systems**, Vol. 7 (1-3), 1997.
- Doverspike, R., G. Sahin, J. L. Strand, R. W. Tkach, "Fast Restoration in a Mesh Network of Optical Cross-connects," Proceedings of **OFC 1999**, San Diego, CA, February 1999.
- Doverspike, R., S. Phillips, J. Westbrook, "Future Transport Network Architectures," **IEEE Communications Magazine**, August, Vol. 37 (8), pp. 96-101, 1999.
- Doverspike, R., S. Phillips, J. Westbrook, "Transport Network Architectures in an IP World," Proceedings of BT-sponsored Alliance Engineering Symposium, Oslo, Norway, June 1999.
- Doverspike, R., S. Phillips, J. Westbrook, "Transport Network Architectures in an IP World," **IEEE INFOCOM-2000**, Tel-Aviv Israel. March 2000.
- Doverspike, R., I. Saniee (Eds.), **Heuristic Approaches For Telecommunications Network Management, Planning, And Expansion, Kluwer Academic Publishers**, 2000.
- Doverspike, R., J. Yates, "Challenges For MPLS in Optical Network Restoration," **IEEE Communications Magazine**, Vol. 39 (2), February 2001, pp. 89-97.
- Doverspike, R., J. Strand, G. Li, "Importance Of Wavelength Conversion In An Optical Network," **Optical Networks Magazine**, Vol 2 (3), May/June 2001, pp. 33-44.
- Li, G., J. Yates, R. Doverspike and D. Wang, "Experiments in Fast Restoration using GMPLS in Optical / Electronic Mesh Networks," Postdeadline Papers Digest, **OFC 2001**, Anaheim, CA, March 2001.
- Li, G., R. Doverspike and C. Kalmanek, "Fiber Span Failure Protection in Mesh Optical Networks," **Opticomm 2001**, Denver, CO, August 2001.
- Li, G., R. Doverspike and C. Kalmanek, "Fiber Span Failure Protection in Mesh Optical Networks," **Optical Networks Magazine**, Vol. 3, (3), May/June 2002, pp 21-31.
- Li, G., D. Wang, C. Kalmanek, R. Doverspike, "Efficient Distributed Path Selection for Shared Restoration Connections," **IEEE INFOCOM 2002**, New York.
- Pongpaibool, P., R. Doverspike, M. Roughan, J. Gottlieb, "Handling IP Traffic Surges via Optical Layer Reconfiguration," **OFC 2002**, Anaheim, CA, March 2002.
- Phillips, S., N. Reingold, R. Doverspike, "Network Studies in IP/Optical Layer Restoration," **OFC 2002**, Anaheim, CA, March 2002.
- Yu, Fang, D. Wang, R. Sinha, G. Li, R. Doverspike, C. Kalmanek, "Hybrid Centralized/Distributed Approach to Optical Network Restoration," **OFC 2003**, Atlanta, GA, March 2003.

- Li, G., D. Wang, C. Kalmanek, R. Doverspike, "Efficient Distributed Restoration Path Selection for Shared Mesh Restoration," *IEEE Transactions on Networking*, Vol. 11 (5), Oct 2003, pp 761-771.
- Yu, Fang, R. Sinha, R. Doverspike, B. Cortez, J. Strand, "Link Selection Schemes for Avoiding Channel Contention," 4th International Workshop on the Design of Reliable Communication Networks (*DRCN 2003*), October 2003, Banff Canada.
- Afferton, T., R. Doverspike, C. Kalmanek, K. K. Ramakrishnan, "Packet-Aware Transport for Metro Networks," *IEEE Communications Magazine*, March, 2004, pp. 120-127.
- Li, G., D. Wang, R. Doverspike, C. Kalmanek, J. Yates, "Economic Analysis of IP/Optical Network Architectures," *OFC 2004*, Los Angeles, CA, March 2004.
- Afferton, T., R. Doverspike, C. Kalmanek, K. K. Ramakrishnan, "Packet-Aware Transport for Metro Networks," 13th IEEE Workshop on Local and Metropolitan Area Networks (*IEEE LANMAN 2004*), San Francisco, CA, April 2004.
- Wang, D., K.K. Ramakrishnan, C. Kalmanek, R. Doverspike, A. Smiljanic, "Congestion Control in Resilient Packet Rings," 12th IEEE International Conference on Network Protocols (*ICNP 2004*), Berlin, October 2004, pp. 108-117.
- Doverspike, R., K. K. Ramakrishnan, J. Wei, J. Pastor, C. Kalmanek, "Service-Driven Networks for Packet-Aware Transport," Invited Talk, *OFC 2005*, Anaheim, CA, March 2005.
- Sinha, R., F. Yu, R. Doverspike, "Performance Study of Mesh Restoration," *OFC 2005*, Anaheim, CA, March 2005.
- Wei, J., K.K. Ramakrishnan¹, R. Doverspike, J. Pastor, L. Aguirre-Torres, C. Kalmanek, T. Afferton, "Convergence through Packet-Aware Transport," *The Journal of Optical Networking*, Special Issue on Convergence, Vol. 5 (4), April 2006, pp. 221-245.
- Li, G., D. Wang, R. Doverspike, "Efficient Distributed MPLS P2MP Fast Reroute," *IEEE INFOCOM 2006*, Barcelona Spain.
- Darcie, T., R. Doverspike, S. Korotky, (Eds.) "Convergence", Special Issue of *The Journal of Optical Networking*, September, 2006.
- Li, G., D. Wang, J. Yates, R. Doverspike, C. Kalmanek, "IP Over Optical Cross-Connect Architectures," *IEEE Communications Magazine*, Vol. 45 (2), February 2007, pp. 34-39.
- Doverspike, R., G. Li, K. Oikonomou, K. K. Ramakrishnan and D. Wang, "IP Backbone Design for Multimedia Distribution: Architecture and Performance," *IEEE INFOCOM 2007*, April 2007, Anchorage Alaska.
- Oikonomou, K., K.K. Ramakrishnan, R. Doverspike, A. Chiu, M. Martinez-Heath, and R. Sinha, "Performability Analysis of Multi-Layer Restoration in a Satellite Network," Springer, Proceedings of *International Teletraffic Congress (ITC-20)*, Ottawa, Canada, June 2007, pp. 77-91.
- Chiu, A., G. Choudhury, R. Doverspike, and G. Li, "Restoration Design in IP over Reconfigurable All-Optical Networks," *NPC 2007*, Dalian, P.R. China, September 2007. (Won "Best Paper" Award for Conference)
- Doverspike, R. and P. Magill, "Chapter 13: Commercial Optical Networks, Overlay Networks and Services," in *Optical Fiber Telecommunications V B*, Elsevier 2008.
- Li, G., R. Doverspike, A. Chiu, M. Birk, D. Husa, N. Zanki, "On Transient-Constrained Wavelength Assignment," *IEEE INFOCOM Mini-Conference*, April, 2008, Phoenix, AZ.
- Yuksel, M., K.K. Ramakrishnan, and R. Doverspike, "Cross-Layer Failure Restoration for a Robust IPTV Service," *IEEE LANMAN-2008*, Cluj-Napoca, Romania. Sept, 2008. (Won "Best Paper" Award for Conference)

- Chiu, A., G. Choudhury, G. Clapp, R. Doverspike, J. Gannett, J. Klineciewicz, G. Li, R. Skoog, J. Strand, A. Von Lehmen, D. Xu, "Network Design and Architectures for Highly Dynamic Next-Generation IP-over-Optical Long Distance Networks," **OFC 2009**, San Diego, CA, March 2009.
- Chiu A., R. Doverspike, G. Li, and J. Strand, "Restoration Signaling Protocol Design for Next-Generation Optical Network," **OFC 2009**, San Diego, CA, March 2009.
- Doverspike, R., G. Li, K. Oikonomou, K. K. Ramakrishnan, R. Sinha, D. Wang, C. Chase, "Designing a Reliable IPTV Network," **IEEE Internet Computing Magazine** May/June 2009, pp. 15-22.
- R. Luebben, G. Li, D. Wang, R. Doverspike, X. Fu, "Fast Rerouting for IP Multicast in Managed IPTV Networks," 17th **IEEE International Workshop on Quality of Service (IWQoS'09)** July 2009, Charleston, SC.
- Oikonomou, K., R. Sinha, and R. Doverspike, "Multi-Layer Network Performance and Reliability Analysis," **The International Journal of Interdisciplinary Telecommunications and Networking (IJITN)**, Vol. 1 (3), pp. 1-29, Sept 2009.
- Chiu, A., G. Choudhury, G. Clapp, R. Doverspike, J. Gannett, J. Klineciewicz, G. Li, R. Skoog, J. Strand, A. Von Lehmen, D. Xu, "Network Design and Architectures for Highly Dynamic Next-Generation IP-over-Optical Long Distance Networks," **Journal of Lightwave Technology**, Vol. 27 (12), pp. 1878-1890, June 2009.
- Doverspike, R, Cortez, B, "Restoration in Carrier Networks," Proceedings of the **7th International Workshop on the Design of Reliable Communication Networks (DRCN)**, Oct 2009, Wash. D.C.
- Doverspike, R. K. K. Ramakrishnan, C. Chase, "Structural Overview of Commercial Long Distance IP Networks," Chapter 2 in **Guide to Reliable Internet Services and Applications**, C., Kalmanek, S. Misra, and R. Yang (Eds.), 1st Edition., Springer 2010, ISBN: 978-1-84882-827-8.
- Yuksel, M., K. K. Ramakrishnan, R. Doverspike, R. Sinha, G. Li, K. Oikonomou, and D. Wang, "Cross-Layer Techniques for Failure Restoration of IP Multicast with Applications to IPTV," **International Conference on Communication Systems and Networks (COMSNETS-2010)**, Jan 2010, Bangalore, India.
- Clapp, G., R. Doverspike, R. Skoog, J. Strand, and Ann Von Lehmen, "Lessons Learned from CORONET," **OFC 2010**, San Diego, CA, March 2010.
- Zhang, X., M. Birk, A. Chiu, R. Doverspike, M. D. Feuer, P. Magill, E. Mavrogiorgis, J. Pastor, S. L. Woodward, J. Yates, "Bridge-and-Roll Demonstration in GRIPhoN (Globally Reconfigurable Intelligent Photonic Network)," **OFC 2010**, San Diego, CA, March 2010.
- Li, Guangzhi, Angela Chiu, Robert Doverspike, Dahai Xu, Dongmei Wang, "Efficient Routing in Heterogeneous Core DWDM Networks," **OFC 2010**, San Diego, CA, March 2010.
- Sinha, R. K., K. K. Ramakrishnan, R. Doverspike, D. Xu, J. Pastor, A. Shaikh, S. Lee, C. Chase, "Proactive Network Management of IPTV Networks," **INM/WREN'10** Workshop on Research on Enterprise Networking, San Jose, CA, April 2010.
- Wang, Dongmei, David Lynch, Jian Li, John Klineciewicz, Guangzhi Li, Robert Doverspike, Moshe Segal, "Design of Metro Ethernet Networks," **IEEE LANMAN-2010**, Long Branch, NJ, May 2010.
- Zhang, X., S. Lumetta, A. Chiu, R. Doverspike, "Heuristic Resource Optimization for Dynamic Wavelength Services on Optically Reconfigurable Networks," **ICCCN'10**, Zurich, Switzerland, August 2010.
- Zhang, X., S. Lumetta, A. Chiu, R. Doverspike, "Non-volatile Resource Provisioning for Mission Critical Dynamic Wavelength Services on Agile Optically Reconfigurable Networks," **MILCOM'10**, Baltimore, MD, Nov 2010.

- Zhang, X., S. Lumetta, A. Chiu, R. Doverspike, "Optimal Resource Provisioning for Dynamic Wavelength Services with Access Port Constraints," *Journal of Lightwave Technology*, Vol. 29 (5), pp. 756-769, 2011.
- Gerber, A. and R. Doverspike, "Traffic Types and Growth in Backbone Networks," *OFC 2011*, Los Angeles, CA, March 2011.
- Shen, Dong, Guangzhi Li, Angela Chiu, Dah-min Hwang, Dahai Xu, Dongmei Wang, Calvin C K Chan, Robert Doverspike, "On Multiplexing Optimization in DWDM Networks," *OFC 2011*, Los Angeles, CA, March 2011.
- Shen, Dong, Guangzhi Li, Dongmei Wang, Calvin C K Chan, Robert Doverspike, "Efficient Regenerator Placement and Wavelength Assignment in Optical Networks," *OFC 2011*, Los Angeles, CA, March 2011.
- Oikonomou, Kostas, Rakesh K. Sinha, Robert Doverspike, "A Network Design Technique for Selective Restoration," *OFC 2011*, Los Angeles, CA, March 2011.
- Li, Guangzhi, Dahai Xu, Dongmei Wang, Angela Chiu, Robert Doverspike, "Circuit Planning Tool over Heterogeneous Networks," Workshop on High Speed Networks (HSN), *INFOCOM 2011*, Shanghai, China, April 2011.
- Yuksel, M., K. K. Ramakrishnan, R. D. Doverspike, R. K. Sinha, G. Li, K. N. Oikonomou, and D. Wang, "Cross-Layer Failure Restoration of IP Multicast with Applications to IPTV," *Computer Networks*, Elsevier, April 2011.
- Suchara, Martin, Dahai Xu, Robert Doverspike, David Johnson, and Jennifer Rexford, "Network Architecture for Joint Failure Recovery and Traffic Engineering", *SIGMETRICS 2011*, San Jose, CA, June, 2011. (**Won "Best Student Paper" Award for Conference**).
- Chiu, A., G. Choudhury, G. Clapp, R. Doverspike, M. Feuer, J. Jackel, J. Klinecicz, G. Li, P. Magill, J. Simmons, R. Skoog, J. Strand, A. Von Lehmen, S. Woodward, and D. Xu, "Architectures and Protocols for Capacity-Efficient, Highly-Dynamic and Highly-Resilient Core Networks," *Journal of Optical Communications and Networking (JOCN)*, Vol. 4 (1), Jan, 2012, pp. 1–14.
- Mahimkar, A., A. Chiu, R. Doverspike, M. Feuer, P. Magill, E. Mavrogiorgis, J. Pastor, S. Woodward, J. Yates, "Bandwidth on Demand for Inter-Data Center Communication," ACM SIGCOMM HotNets Workshop, Boston, MA, Nov 2011.
- Mahimkar, A., A. Chiu, R. Doverspike, M. Feuer, P. Magill, E. Mavrogiorgis, J. Pastor, V. Sethi, D. Xu, S. Woodward, J. Yates, "Outage Detection and Dynamic Re-Provisioning in GRIPhoN – a Globally Reconfigurable Intelligent Photonic Network," *OFC 2012*, Los Angeles, CA, March 2012.
- Li, G., D. Wang, R. Doverspike, T. Gallivan, "On Shared Risk Link Group Optimization," *OFC 2012*, Los Angeles, CA, March 2012.
- Doverspike, R. and J. Yates, "Optical Network Management and Control," *Proceedings of the IEEE*, Vol. 100 (5), May 2012, pp. 1092 – 1104.
- Li, G., D. Wang, T. Gallivan, and R. Doverspike, "On Shared Risk Link Group Optimization," *Journal of Optical Communications and Networking (JOCN)*, Vol. 4 (11), Nov 2012, pp. B52-B57.
- Xu, D., G. Li, B. Ramamurthy, A. Chiu, D. Wang, R. Doverspike, "On Provisioning Diverse Circuits in Heterogeneous Multi-layer Optical Networks," *Elsevier Computer Communications - Special Issue on Reliable Network-based Services*, Vol. 36 (6), March 2013, pp. 689 –697.
- Bathula, B., R. Sinha, A. Chiu, M. Feuer, G. Li, S. Woodward, W. Zhang, R. Doverspike, P. Magill, and K. Bergman, "Constraint Routing and Regenerator Site Concentration in ROADM Networks," *Journal of Optical Communications and Networking (JOCN)*, Vol. 5 (11), Nov 2013, pp. 1202-1214.
- Doverspike, R., G. Clapp, P. Douyon, D. Freimuth, K. Gullapalli, J. Hartley, E. Mavrogiorgis, J. O'Connor, J. Pastor, K.K. Ramakrishnan, M. Rauch, M. Stadler, A. Von Lehmen, B. Wilson, S.

- Woodward, "Using SDN Technology to Enable Cost-effective Bandwidth-on-Demand for Cloud Services," **OFC 2014**, San Francisco, CA, March 2014.
- Von Lehmen, A., R. Doverspike, G. Clapp, D. Freimuth, J. Gannett, K. Kim, H. Kobrinski, E. Mavrogiorgis, J. Pastor, M. Rauch, K. Ramakrishnan, R. Skoog¹, B. Wilson, S. Woodward, "CORONET: Testbeds, Cloud Computing, and Lessons Learned," **OFC 2014**, San Francisco, CA, March 2014.
- Doverspike, R., G. Clapp, P. Douyon, D. Freimuth, K. Gullapalli, B. Han, J. Hartley, A. Mahimkar, E. Mavrogiorgis, J. O'Connor, J. Pastor, K.K. Ramakrishnan, M. Rauch, M. Stadler, A. Von Lehmen, B. Wilson, S. Woodward, "Using SDN Technology to Enable Cost-effective Bandwidth-on-Demand for Cloud Services," **Journal of Optical Communications and Networking (JOCN)**, Vol. 7 (2), Feb. 2015, pp. TBD.
- Von Lehmen, A., R. Doverspike, G. Clapp, D. Freimuth, J. Gannett, K. Kim, H. Kobrinski, E. Mavrogiorgis, J. Pastor, M. Rauch, K. Ramakrishnan, R. Skoog¹, B. Wilson, S. Woodward, "CORONET: Testbeds, Cloud Computing, and Lessons Learned," **Journal of Optical Communications and Networking (JOCN)**, TBD
- Nogueira, M., P. Cholda, D. Medhi, R. Doverspike, "Disaster Resilience in Communication Networks: Part 1," Editors Feature Article, **IEEE Communications Magazine**, October 2014, Vol. 52 (10), pp. 44-75.
- Nogueira, M., P. Cholda, D. Medhi, R. Doverspike, "Disaster Resilience in Communication Networks: Part2," Editors Feature Article, **IEEE Communications Magazine**, December 2014, Vol. 52 (12), pp. 56-95.
- Andrade, C., M. Resende, W. Zhang, R. Sinha, K. Reichmann, R. Doverspike, F. Miyazawaa, "A Biased Random-key Genetic Algorithm for Wireless Backhaul Network Design," **Journal of Applied Soft Computing**, August 2015, Vol. 33, pp. 150–169.

PATENTS

NUMBER	DATE	PATENT TITLE	INVENTORS
6097696	08/01/2000	Optical layer quasi-centralized restoration	R. Doverspike
6970417	11/29/2005	Methods and systems for fast restoration in a mesh network of optical cross connects.	R. Doverspike, G. Sahin, J. Strand, R. Tkach
6982951	01/03/2006	Method for selecting a restoration path in a mesh network	R. Doverspike, C. Kalmanek, G. Li.
7088676	08/08/2006	Methods and systems for fast restoration in a mesh network of optical cross connects	R. Doverspike, G. Sahin; J. Strand, R. Tkach
7180852	02/20/2007	Method for selecting a restoration path in a mesh network	R. Doverspike, C. Kalmanek, G. Li
7298700	11/20/2007	Method for unidirectional and bidirectional label switched path setup in a label switched network	R. Doverspike, C. Kalmanek, G. Li, J. Yates
7450516	11/11/2008	Link selection schemes for avoiding channel contention	B. Cortez, R. Doverspike, R. Sinha, J. Strand, F. Yu
7450496	11/11/2008	Method for selecting a restoration path in a mesh network	R. Doverspike, C. Kalmanek, G. Li
7599373	10/06/2009	Method and apparatus for automated provisioning for customer premises transport equipment	R. Doverspike, C. Kalmanek, M. Martinez-Heath, K. Ramakrishnan, David Yang
7613135	11/03/2009	System and method for routing packet traffic	R. Doverspike, G. Li, D. Wang
7688720	03/30/2010	Method for selecting a restoration path in a mesh network	R. Doverspike, C. Kalmanek, G. Li
7782772	08/24/2010	Method for unidirectional and bidirectional label switched path setup in a label switched network	R. Doverspike, C. Kalmanek, G. Li, J. Yates
7859993	12/28/2010	Two-phase fast reroute with optimized traffic engineering	G. Choudhury, A. Chiu, R. Doverspike, G. Li
7916657	03/29/2011	Network performance and reliability evaluation taking into account abstract components	R. Doverspike, K. Oikonomou, R. Sinha
8010694	08/30/2011	Network performance and reliability evaluation taking into account multiple traffic matrices	R. Doverspike, K. Oikonomou, R. Sinha
8068412	11/29/2011	Link selection schemes for avoiding channel contention	B. Cortez, R. Doverspike, R. Sinha, J. Strand, F. Yu
8150257	04/03/2012	Shared mesh restoration with pre-configured standby lightpaths	G. Choudhury, A. Chiu, R. Doverspike, G. Li, J. Strand
8260133	09/04/2012	Standby restoration signaling for optical networks	G. Li, A. Chiu, R. Doverspike, J. Strand
8406622	03/26/2013	1:n sparing of router resources at geographically dispersed locations	R. Doverspike, R. Sinha, P. Magill, J. Yates
8422379	04/16/2013	Method of simple and efficient failure resilient load balancing	D. Xu, R. Doverspike, D. Johnson, J. Rexford, M. Suchara
8452176	05/28/2013	Reachability matrices spanning multiple domains in an optical network	R. Doverspike, G. Li, A. Chiu, M. Gerhardstein, Y. Guo, D. Wang, D. Xu

8462621	06/11/2013	Systems and methods of multicast reconfiguration using cross-layer information	K. Ramakrishnan, R. Doverspike, M. Yuksel
8467382	06/18/2013	Method and apparatus for providing a control plane across multiple optical network domains	R. Doverspike, A. Greenberg, G. Li, D. Wang, J. Yates, J. Gottlieb, C. Kalmanek, P. Sebos
8515280	08/20/2013	Physically-diverse routing in heterogeneous optical networks	G. Li, A. Chiu, C. Dailey, R. Doverspike, M. Gerhardstein, D. Wang, D. Xu
8532137	09/10/2013	Network architecture for a packet aware transport network	T. Afferton, L. Aguirre-Torres, R. Doverspike, C. Kalmanek, K.K. Ramakrishnan
8611232	12/17/2013	Method of simple and efficient failure resilient load balancing	D. Xu, R. Doverspike, D. Johnson, J. Rexford, M. Suchara
8687956	04/01/2014	Standby restoration signaling for optical networks	G. Li, A. Chiu, R. Doverspike, J. Strand
8750161	06/10/2014	Metropolitan IP aggregation network design tool	D. Matthews, P. Bhagat, R. Doverspike, J. Klinecicz, J. Li, G. Li, D. Lynch, M. Segal, D. Wang
8761601	06/24/2014	1:n sparing of router resources at geographically dispersed locations	R. Doverspike, R. Sinha, P. Magill, J. Yates
8813141	08/19/2014	System and method of providing video content	K. Ramakrishnan, C. Kalmanek, R. Doverspike, W. Fenner
8824461	09/02/2014	Method and apparatus for providing a control plane across multiple optical network domains	R. Doverspike, A. Greenberg, G. Li, D. Wang, J. Yates, J. Gottlieb, C. Kalmanek, P. Sebos
8897641	11/25/2014	Reachability matrices spanning multiple domains in an optical network	R. Doverspike, G. Li, A. Chiu, M. Gerhardstein, Y. Guo, D. Wang, D. Xu
8989018	03/24/2015	Method and apparatus for providing a route recommendation	G. LI, A. Chiu, C. Dailey, R. Doverspike, M. Gerhardstein, D. Hwang, D. Wang, D. Xu
9215166	12/15/2015	Systems and methods of multicast reconfiguration using cross-layer information	K. Ramakrishnan, R. Doverspike, M. Yuksel

CONFERENCE PRESENTATIONS (NO PROCEEDINGS)

- Sen, S., R. D. Doverspike, "A Model for Simultaneous Capacity Expansion, Multiplexing, and Routing for Inter-office Network Planning," Telecommunications Sponsored Session, ORSA/TIMS Conference, St. Louis, Missouri, October 1987.
- Sen, S., R. D. Doverspike, S. Dunatunga, I. Gammage, "Decomposition-Coordination Algorithms for the Unified Facilities Optimizer (UFO)," Telecommunications Sponsored Session, ORSA/TIMS Conference, Washington, D. C., April, 1988.
- Sen, S., R. D. Doverspike, S. I. Vohnout, "Routing Options in the Unified Facilities Optimizer, Telecommunications Sponsored Session, ORSA/TIMS Conference, Vancouver, B. C., Canada, May 1989.
- Sen, S., R. D. Doverspike, S. Dunatunga, "Capacity Expansion in the Unified Facilities Optimizer, Telecommunications Sponsored Session, ORSA/TIMS Conference, Vancouver, B. C., Canada, May 1989.
- Sen, S., R. D. Doverspike, "Design of Switched DS1 Networks," 1st ORSA Telecommunications Conference, Boca Raton, Florida, March 1990.
- Doverspike, R. D., "Planning Survivable DCS-Switched Bandwidth Networks," Supercomm/ICC '90, Atlanta, Georgia, April 1990.
- Sen, S., S. I. Vohnout, R. D. Doverspike, "Diverse Routing in Network Planning," Telecommunications Sponsored Session, ORSA/TIMS Conference, Philadelphia, Pennsylvania, May 1990.
- Doverspike, R. D., "Planning SONET Switched Bandwidth Networks," Eastern Communications Forum (ECF-90), Boston, Massachusetts, May 1990.
- Doverspike, R. D., "Operations Research Models for New Telecommunications Network Architectures," International Federation of Operational Research Societies (IFORS) Workshop on Operations Research Models in Telecommunications, Athens, Greece, June 1990.
- Doverspike, R. D., "Design of Switched DS1 Networks," 1st ORSA Telecommunications Conference, Boca Raton, Florida, March 1990.
- Doverspike, R. D., "Comparison of Routing Methods for DCS-Switched Networks," Telecommunications Sponsored Session, TIMS/ORSA Conference, Nashville, TN, May 1991.
- Doverspike, R. D., J. L. Strand, "Public Telecommunications Networks-Modeling Basics," Tutorial Session, 2nd ORSA Telecommunications Conference, Boca Raton, Florida, March 1992.
- Sen, S., R. D. Doverspike, S. Cosares, "Network Planning with Random Demand," Telecommunication Systems Conference, Nashville TN, March 1993.
- Doverspike, R. D., B. Wilson, "Comparison of DCS Restoration Methods," Telecommunications Sponsored Session, TIMS/ORSA Conference, Phoenix, Arizona, Nov 1993.
- Doverspike, R. D., I. Saniee, S. Cosares, "A Survey of Optimization Problems for Survivability in Transmission Networks," Telecommunications Sponsored Session, TIMS/ORSA Conference, Boston, Massachusetts, April 1994.
- Doverspike, R. D., J. L. Strand, "Network Management and Planning for Public ATM/SONET Networks," Tutorial Session, 3rd ORSA Telecommunications Conference, Boca Raton, Florida, March 1995.
- Doverspike, R. D., "Routing, Network Design, and Restoration in DCS Public Telecommunications Networks," University of Iowa Telecommunications Network Design Workshop 1995.
- Doverspike, R. D., "Layered Network Management of ATM, SONET, and WDM Technologies," Telecommunications Sponsored Session, INFORMS Conference, Atlanta, GA, November 1996.

- Wilson, B. J., R. D. Doverspike, "Network Management Aspects of the ATDNet ATM/SONET Network," Telecommunications Sponsored Session, INFORMS Conference, Atlanta, GA, November 1996.
- Doverspike, R. D., J. L. Strand, "Tutorial: The Optical Transport Layer: Technology, Network Design, and Management Aspects," Tutorial Session, 4th INFORMS Telecommunications Conference, Boca Raton, Florida, March 1998.
- Doverspike, R. D., "Optical Layer Cross-Connect Restoration Methods," 4th INFORMS Telecommunications Conference, Boca Raton, Florida, March 1998.
- Doverspike, R. D., "Optical Layer Cross-Connect Restoration Methods," ICC'98 Workshop on WDM Network Mgmt, Atlanta, GA, June 1998.
- Doverspike, R. D., J. L. Strand, G. Li, "Analysis of Restoration Against Node Failure in a Mesh Network of Optical Cross-Connects," 5th INFORMS Telecommunications Conference, Boca Raton, Florida, March 2000.
- Doverspike, R.D., "Towards an IP and Optical Layer Transport Network", NJ Chapter of INFORMS, RUTCOR, April 2000.
- Doverspike, R. D., and J. L. Strand, "Optical Networking Workshop," 6th INFORMS Telecommunications Conference, Boca Raton, Florida, March 2002.
- Doverspike, R., S. Phillips and N. Reingold, "Network Studies in IP/Optical Layer Restoration," 6th INFORMS Telecommunications Conference, Boca Raton, Florida, March 2002.
- Doverspike, R. D., "IP and Optical Layer Networks: Hype and Reality," Keynote speaker at 3rd IEEE Workshop on IP Operations & Management (IPOM-2003), October 2003, Kansas City, Missouri 2003.
- Wang, D., K.K. Ramakrishnan, C. Kalmanek, R. Doverspike, and A. Smiljanic, "Congestion Control in Resilient Packet Rings," 7th INFORMS Telecommunications Conference, Boca Raton, Florida, March 2004.
- Balasaygun K., A. Chiu, R. Doverspike, and J. Strand, "Optical Hubbing Design in Metro Transport Networks," 7th INFORMS Telecommunications Conference, Boca Raton, Florida, March 2004.
- Li, G., D. Wang, J. Yates, C. Kalmanek, and R. Doverspike, "Efficient Restoration Capacity Design in MPLS Networks," 7th INFORMS Telecommunications Conference, Boca Raton, Florida, March 2004.
- Doverspike, R. D., "**Packet-aware Transport in Metro Networks**," Keynote Speaker, "The Future of SONET," **Lightreading** Seminar, May, 2004, New York, NY.
- Li, G., D. Wang, K. Balasaygun, R. Doverspike, and R. Magill, **WiMax Network Design**, 8th INFORMS Telecommunications Conference, Dallas, TX, March 2006.
- Doverspike, R., J. Yates, J. Pastor, M. Birk "Evolution of IP/OL Performance Management", Invited Panel on Optical Performance Monitoring, **OFC 2006**, March 2006.
- Doverspike, R., "Practical Aspects of Bandwidth-on-Demand in Optical Networks," Panel on Emerging Networks Service Provider Summit – **OFC 2007**, Anaheim, CA, March 2007.
- Ramakrishnan, K. and R. Doverspike, "IPTV Challenges," Invited tutorial – **OFC 2008**, San Diego, CA, February 2008.
- Doverspike, R., Organizer of Workshop on "Packet/TDM Network Convergence, Opportunities and Challenges," **OFC 2008**, San Diego, CA, February 2008.
- Li, G., D. Wang and R. Doverspike, "A Simple And Efficient Restoration Method In IPTV Networks," 9th INFORMS Telecommunications Conference, University Park, MA, March 2008.

Sinha, R. Doverspike, G. Li, K. Oikonomou, K. K. Ramakrishnan, and D. Wang, "Performability Analysis And Design Of Multicast IPTV Distribution," 9th INFORMS Telecommunications Conference, University Park, MA, March 2008.

Doverspike, R., G. Li, D. Xu, A. Chiu, and D. Wang, "Physical-Diverse Routing in Heterogeneous Optical Networks," 10th INFORMS Telecommunications Conference, Montreal Canada, May 2010.

Doverspike, R. Toso, M. Resende, D. Wang, "Design of Metro Ethernet networks," 10th INFORMS Telecommunications Conference, Austin, TX, Nov 2010.

Doverspike, R., "Where and How Telecommunication Carriers Provide Network Restoration", Invited Talk, ***Design of Reliable Communications Networks (DRCN)***, Krakow, Poland, Oct 2011.

Wang, D., R. Doverspike, J. Li, D. Lynch, M. Resende, R. Toso, "Heuristics For Design of Metro Ethernet Networks," 12th INFORMS Telecommunications Conference, Boca Raton, FL, March 2012.

Doverspike, R., "Where and How Telecommunication Carriers Provide Network Restoration", Invited Talk, Rutgers Center for Operations Research (RUTCOR), New Brunswick, NJ, April 2012.

Doverspike, R., Organizer of Workshop entitled, "Can transport equipment cost reductions keep pace with carrier Internet growth?" ***OFC 2013***, Los Angeles, CA, March 2013.

Doverspike, R., "Evolution of Bandwidth-on-Demand-Services," Dynamic Network Services Panel, ***OFC 2013***, Los Angeles, CA, March 2013.

Doverspike, R., "Tutorial. The Practice of Network Modeling and Design in Commercial Telecommunications Networks," GERAD Optimization Days, Montreal Canada, May 2013.

Doverspike, R., T. Anschutz, M. Birk, "Applications of SDN in Transport Networks," Panel on SDN for Transport Networks, ***OFC 2014***, San Francisco, CA, March 2014.

Doverspike, R., M. Esfandiari, M. Birk, "The Potential of SDN for Planning and Provisioning Carrier Metro Networks," SDN Workshop, ***OFC 2015***, Los Angeles, CA, March 2015.

Doverspike, R., J. Reich, "Automated Planning and Provisioning for Carrier Metro Networks," Keynote Talk, ***Design of Reliable Communications Networks (DRCN)***, Kansas City, March 2015.