

List of WINLAB Publications and Talks

(2005 to Fall 2008)

Author	Co-Authors	Paper/Talk	Title	Where/When	Category
Acharya, J.	Yates, R.D.	Journal Paper	Dynamic Spectrum Allocation for Uplink Users with Heterogeneous Utilities	To appear in the IEEE Transactions on Wireless Communications.	Radio Resource Management
Acharya, J.	Viswanathan, H. and Venkatesan, S.	Conference Paper	Timing Acquisition for Enabling Dynamic Spectrum Access	Proceedings of the IEEE Symposium on New Frontiers in Dynamic Spectrum Access Networks (DySPAN 2008), Chicago, IL, October 2008, pp. 1-10.	Radio Resource Management
Acharya, J.	Yates, R.D.	Conference Paper	Resource and Power Costs in Dynamic Spectrum Allocation	Proceedings of the IEEE Conference on Information Sciences and Systems (CISS 2008), Princeton, NJ, March 2008, pp. 938-943.	Radio Resource Management
Acharya, J.	Yates, R.D.	Conference Paper	A Price Based Dynamic Spectrum Allocation Scheme	Proceedings of the IEEE 2007 Asilomar Conference on Signals, Systems and Computers, Pacific Grove, CA, November 2007, pp. 797-801.	Radio Resource Management
Acharya, J.	Yates, R.D.	Conference Paper	A Framework for Dynamic Spectrum Sharing between Cognitive Radios	Proceedings of the IEEE International Conference on Communications (ICC 2007), Glasgow, Scotland, June 2007, pp. 5166-5171.	Radio Resource Management
Acharya, J.	Yates, R.D.	Conference Paper	Profit Maximizing Pricing Strategies for Dynamic Spectrum Allocation	Proceedings of the IEEE Conference on Information Sciences and Systems (CISS 2007), Baltimore, MD, March 2007, pp. 345-350.	Radio Resource Management
Bohacek, S.	Blum, R., Cimini, L., Greenstein, L., and Haimovich	Conference Paper	The Impact of the Timeliness of Information on the Performance of Multihop Best-Select	Proceedings of 2005 Military Communications Conference (MILCOM 2005), Atlantic City, NJ, October 2005, pp. 99-105.	Radio Resource Management
Clemens, N.	Rose, C.	Conference Paper	Intelligent Power Allocation Strategies in an Unlicensed Spectrum	Proceedings of IEEE Symposium on New Frontiers in Dynamic Spectrum Access Networks (DySPAN '05), Baltimore, MD, November 2005, pp. 37-42.	Radio Resource Management
Feng, N.	Mau, S-C. and Mandayam, N.B.	Journal Paper	Joint Network-Centric and User-Centric Radio Resource Management in a Multicell System	IEEE Transactions on Communications, Vol. 53, Issue 7, pp. 1114-1118, July 2005.	Radio Resource Management
Gopal, S.	Paul, S. and Raychaudhuri, D.	Conference Paper	Investigation of the TCP Simultaneous-Send Problem in 802.11 Wireless Local Area Networks	Proceedings of the IEEE International Conference on Communications, Seoul, Korea, May 2005, pp. 3594-3598.	Radio Resource Management
Jing, X.	Anandaraman, S., Ergin, M., Seshkar, I. and Raychaudhuri, D.	Conference Paper	Distributed Coordination Schemes for Multi-Radio Co-Existence in Dense Spectrum Environments: An Experimental Study on the ORBIT Testbed.	Proceedings of the 3 rd IEEE International Symposium on Dynamic Spectrum Access Networks (DySPAN 2008), Chicago, IL, October 2008, pp. 156-166.	Radio Resource Management
Jing, X.	Raychaudhuri, D.	Conference Paper	Global Control Plane Architecture for Cognitive Radio Networks	Proceedings of IEEE CogNet 2007 Workshop – Towards Cognition in Wireless Networks (in conjunction with IEEE International Conference on Communications – ICC 2007), Glasgow, Scotland, June 2007, pp. 6466-6470.	Radio Resource Management
Jing, X.	Raychaudhuri, D.	Journal Paper	Spectrum Co-Existence of IEEE 802.11b and 802.16a Networks Using Reactive and Proactive Etiquette Policies	ACM Monet Special Issue on Soft Radio-enabled Heterogeneous Wireless Networks, Vol. 11, No. 4, pp. 539-554, August 2006.	Radio Resource Management

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Jing, X.	Raychaudhuri, D.	Conference Paper	Spectrum Co-existence of IEEE 802.11b and 802.16a Networks Using the CSCC Etiquette Protocol	Proceedings of IEEE International Symposium on New Frontiers in Dynamic Spectrum Access Networks (DySPAN 2005) Baltimore, MD, November 2005, pp. 243-250.	Radio Resource Management
Jing, X.	Mau, S-C., Raychaudhuri, D. and Matyas, R.	Conference Paper	Reactive Cognitive Radio Algorithms for Co-existence between IEEE 802.11b and 802.16a Networks	Proceedings of the 48 th Annual IEEE Global Telecommunications Conference (GLOBECOM 2005) St. Louis, MO, November 2005, pp. 2465-2469.	Radio Resource Management
Kang, J.	Zhang, Y. and Nath, B.	Journal Paper	TARA: Topology-Aware Resource Adaptation to Alleviate Congestion in Sensor Networks	IEEE Transactions on Parallel and Distributed Systems, Vol. 18, No. 7, pp. 919-931, July 2007.	Radio Resource Management
Kang, J.	Zhang, Y. and Nath, B.	Conference Paper	Analysis of Resource Increase and Decrease Algorithm in Wireless Sensor Networks	Proceedings of IEEE Symposium on Computers and Communications (ISCC), Sardinia, Italy, June 2006, pp. 585-590.	Radio Resource Management
Kang, J.	Zhang, Y. and Nath, B.	Conference Paper	Accurate and Energy-Efficient Congestion Level Measurement in Ad Hoc Networks	Proceedings of the IEEE Wireless Communications and Networking Conference (WCNC 2005), New Orleans, LA, March 2005, pp. 2258-2263.	Radio Resource Management
Karakayali, K.	Yates, R.D., Foschini, G. and Valenzuela, R.	Conference Paper	Optimum Zero-forcing Beamforming with Per Antenna Power Constraints	Proceedings of the IEEE International Symposium on Information Theory, Nice, France, June 2007, pp. 101-105.	Radio Resource Management
Karakayali, K.	Yates, R. D. and Razoumov, L.	Journal Paper	Downlink Throughput Maximization in CDMA Wireless Networks	IEEE Transactions on Wireless Communications, Vol. 5, No.12, pp. 3492-3500, December 2006.	Radio Resource Management
Karakayali, K.	Foschini, G.J., Valenzuela, R.A. and Yates, R.D.	Conference Paper	On the Maximum Common Rate Achievable in a Coordinated Network	Proceedings of IEEE International Conference on Communications, Istanbul, Turkey, June 2006, pp. 4333-4338.	Radio Resource Management
Karakayali, K.	Foschini, G.J. and Valenzuela, R.A.	Invited Article	Network Coordination for Spectrally Efficient Communications in Cellular Systems	IEEE Wireless Communications Magazine, Vol. 13, No. 4, pp. 56-61, August 2006.	Radio Resource Management
Koskie, S.	Gajic, Z.	Journal Paper	A Nash Game Algorithm for SIR-based Power Control in 3G Wireless CDMA Networks	IEEE/ACM Transactions on Networking, Vol. 13, No. 5, pp. 1017-1026, October 2005.	Radio Resource Management
Li, X.	Martin, R.P.	Conference Paper	A Simple Ray-Sector Signal Strength Model for Indoor 802.11 Networks	Proceedings of the 2 nd IEEE International Conference on Mobile Ad-Hoc and Sensor Systems (MASS 2005), Washington, DC, November 2005, pp. 639-648.	Radio Resource Management
Luo, J.	Blum, R., Cimini, L.J., Greenstein, L.J. and Haimovich, A.M.	Journal Paper	Power Allocation in a Transmit Diversity System with Mean Channel Gain Information	IEEE Communication Letters, Vol. 9, No. 7, pp. 616-618, July 2005.	Radio Resource Management
Luo, J.	Blum, R., Cimini, L.J., Greenstein, L.J. and Haimovich, A.M.	Conference Paper	Link Failure Probabilities for Practical Cooperative Relay Networks	Proceedings of the IEEE Vehicular Technology Conference (VTC'05-Spring), Stockholm, Sweden, May 2005, pp. 1489-1493.	Radio Resource Management
Maric, I.	Yates, R.D. and Kramer, G.	Journal Paper	Capacity of Interference Channels with Partial Transmitter Cooperation	IEEE Transactions on Information Theory, Vol. 53, No. 10, pp. 3536-3548, October 2007.	Radio Resource Management

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Author	Co-Authors	Paper/Talk	Title	Where/When	Category
Maric, I.	Yates, R.D. and Kramer, G.	Conference Paper	The Strong Interference Channel with Unidirectional Cooperation	Proceedings of the Inaugural Workshop for Information Theory and Applications (ITA), San Diego, CA, February 2006.	Radio Resource Management
Maric, I.	Yates, R.D. and Kramer, G.	Conference Paper	The Discrete Memoryless Compound Multiple Access Channel with Conferencing Encoders	Proceedings of the IEEE International Symposium on Information Theory (ISIT '05), Adelaide, Australia, September 2005, pp. 407-410.	Radio Resource Management
Maric, I.	Yates, R.D. and Kramer, G.	Conference Paper	The Strong Interference Channel with Common Information	Proceedings of the 43 rd Annual Allerton Conference on Communications, Control and Computing, Monticello, IL, September 2005.	Radio Resource Management
Maric, I.	Yates, R.D.	Journal Paper	Cooperative Multicast for Maximum Network Lifetime	Journal on Selected Areas in Communications (JSAC) Special Issue on Wireless Ad Hoc Networks, Vol.23, No. 1, pp.127-135, January 2005.	Radio Resource Management
Mathur, S.	Trappe, W. Mandayam, N., Ye, C. and Reznik, A.	Conference Paper	Radio-Telepathy: Extracting a Secret Key from an Unauthenticated Wireless Channel	Proceedings of the 14 th Annual International Conference on Mobile Computing and Networking (MOBICOM 2008), San Francisco, CA, September 2008, pp. 128-139.	Radio Resource Management
Mathur, S.	Sankar, L., Mandayam, N.B.	Journal Paper	Coalitions in Cooperative Wireless Networks	To appear in the Journal on Selected Areas in Communications – Special Issue on Game Theory in Communications Systems.	Radio Resource Management
Mathur, S.	Sankaranarayanan, L. and Mandayam, N.B.	Conference Paper	Coalitional Games in Cooperative Radio Networks	Proceedings of the 40 th Asilomar Conference on Signals, Systems and Computers (ACSSC '06), Pacific Grove, CA, November 2006, pp. 1927-1931.	Radio Resource Management
Mathur, S.	Sankaranarayanan, L. and Mandayam, N.B.	Conference Paper	Coalitional Games in Gaussian Interference Channels	Proceedings of the 2006 International Symposium on Information Theory (ISIT 2006), Seattle, WA, July 2006, pp. 2210-2214.	Radio Resource Management
Mathur, S.	Sankaranarayanan, L. and Mandayam, N.B.	Conference Paper	Coalitional Games in Receiver Cooperation for Spectrum Sharing	Proceedings of the Conference on Information Sciences and Systems (CISS '06), Princeton, NJ March 2006, pp. 949-954.	Radio Resource Management
Meshkati, F.	Poor, H.V., Schwartz, S.C. and Mandayam, N.B.	Journal Paper	An Energy-Efficient Approach to Power Control and Receiver Design in Wireless Data Networks	IEEE Transactions on Communications, Vol. 53, No. 11, pp. 1885-1894, November 2005.	Radio Resource Management
Meshkati, F.	Chiang, M., Schwartz, S.C., Poor, H.V. and Mandayam, N.B.	Conference Paper	A Non-Cooperative Power Control Game for Multi-carrier CDMA Systems	Proceedings of the IEEE Wireless Communications and Networking Conference (WCNC 2005), New Orleans, March 2005, pp. 606-611.	Radio Resource Management
Popescu, D.C.	Popescu, O. and Rose, C.	Journal Paper	Interference Avoidance and Multiaccess Vector Channels	IEEE Transactions on Communications, Vol. 55, No. 8, pp. 1466-1471, August 2007.	Radio Resource Management
Popescu, O.	Popescu, D. and Rose, C.	Journal Paper	Simultaneous Water Filling in Mutually Interfering Systems	IEEE Transactions on Wireless Communications, Vol. 6, No. 3, pp. 1102-1113, March 2007.	Radio Resource Management

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Author	Co-Authors	Paper/Talk	Title	Where/When	Category
Popescu, O.	Popescu, D. and Rose, C.	Conference Paper	Interference Avoidance for Capacity Optimization in Mutually Interfering Wireless Systems	Proceedings of the 62 nd IEEE Vehicular Technology Conference (VTC 2005 Fall), Dallas, TX, September 2005, pp. 593-597.	Radio Resource Management
Popescu, O.	Popescu, D. and Rose, C.	Conference Paper	Greedy Interference Avoidance in Non-Collaborative Multi-Base Wireless Systems	Proceedings of the 39 th Conference on Information Sciences and Systems (CISS 2005) Baltimore, MD, March 2005.	Radio Resource Management
Qian, L.	Gajic, Z.	Journal Paper	Variance Minimization Stochastic Power Control in CDMA Networks	IEEE Transactions on Wireless Communications, Vol. 5, No.1, pp.193-202, January 2006.	Radio Resource Management
Rajappan, G.	Acharya, J., Liu, H., Mandayam, N., Seskar, I. And Yates, R.	Conference Paper	Mobile Infostation Network Technology	Proceedings of the Wireless Sensing and Processing Symposium (part of the SPIE Defense and Security Symposium), Kissimmee, FL, April 2006.	Radio Resource Management
Raman, C.	Kalyanam, J., Seskar, I. And Mandayam, N.	Conference Paper	Distributed Spatio-temporal Sensing: An Experimental Study	Proceedings of the Asilomar Conference on Signals, Systems and Computers, Pacific Grove, CA, November 2007, pp. 2063-2067.	Radio Resource Management
Raman, C.	Yates, R.D. and Mandayam, N.B.	Invited Paper	Cross-Layer Scheduling of End-to-End Flows Using a Spectrum Server	Proceedings of the Conference on Information Sciences and Systems (CISS 2006), Princeton, NJ, March 2006, pp. 945-948.	Radio Resource Management
Raman, C.	Yates, R.D., Mandayam, N.B.	Conference Paper	Scheduling Variable Rate Links via a Spectrum Server	Proceedings of the IEEE Symposium on New Frontiers in Dynamic Spectrum Access Networks (DySPAN 2005), Baltimore, MD, November 2005, pp. 110-118.	Radio Resource Management
Reznik, A.	Mathur, S., Shah, Y. Goldberg, S., Trappe, W. and Mandayam, N.	Conference Paper	Total Wireless Security: Moving Closer to the Goal with Low-Layer Techniques	Proceedings of the Wireless World Research Forum, 2008.	Radio Resource Management
Rose, C.		Invited Talk	Finding the Profound Amid the Mundane: Communications Theory as a Window on the Physical World	iCORE Summit 2006, Banff, May 23, 2006.	Radio Resource Management
Rose, C.		Invited Talk	If ET Writes, What Might We Look For?	Conference on Space Archaeology, British Interplanetary Society, May 10, 2006, London, UK.	Radio Resource Management
Sankar, L.	Kramer, G. and Mandayam, N.B.	Journal Paper	Offset Encoding for Multiple Access Relay Channels	IEEE Transactions on Information Theory, Vol. 53, No. 10, pp. 3814-3821, October 2007.	Radio Resource Management
Sankar, L.	Kramer, G. and Mandayam, N.	Conference Paper	Cooperation vs. Hierarchy: An Information-theoretic Comparison	Proceedings of the International Symposium on Information Theory, Adelaide, Australia, September 2005, pp. 411-415.	Radio Resource Management
Sankar, L.	Kramer, G. and Mandayam, N.	Conference Paper	Cooperative Diversity in Wireless Networks: A Geometry-inclusive Analysis	Proceedings of the 43 rd Annual Allerton Conference on Communications, Control and Computing, Allerton, IL, September 2005.	Radio Resource Management
Singh, J.	Raman, C., Yates, R.D. and Mandayam, N.	Conference Paper	Random Access for Variable Rate Links	Proceedings of the 2006 Military Communications Conference, Washington, DC, October 2006, pp. 1-6.	Radio Resource Management

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Singh, J.	Rose, C.	Conference Paper	Channel Probing Under a Power Budget	Proceedings of the Conference on Information Sciences and Systems (CISS '06), Princeton, NJ, March 2006, pp. 487-491.	Radio Resource Management
Yates, R.D.	Tse, D. and Li, Z.	Conference Paper	Secret Communication on Interference Channels	Proceedings of the IEEE International Symposium on Information Theory (ISIT), Toronto, Canada, July 2008, pp. 374-378.	Radio Resource Management
Yates, R.D.	Raman, C. and Mandayam, N.B.	Conference Paper	Fair and Efficient Scheduling of Variable Rate Links via a Spectrum Server	Proceedings of the IEEE International Conference on Communications, Istanbul, Turkey, June 2006, pp. 5246-5251.	Radio Resource Management