

## **PUBLICATIONS**

- Journal Papers

- [J1] X. Wu and L.-L. Xie, "Asymptotic equipartition property of output when rate is above capacity", submitted to *IEEE Transactions on Information Theory*, August 2009.
- [J2] A. Alshamrani, X. Shen and L.-L. Xie, "QoS provisioning for heterogeneous services in cooperative cognitive radio networks", *IEEE Journal on Selected Areas in Communications*, Special Issue on Advances in Cognitive Radio Networking and Communications, to appear.
- [J3] L.-L. Xie, "Omnidirectional relay in wireless networks", submitted to *IEEE Transactions on Information Theory*, November 2008. Revised, November 2010.
- [J4] L.-L. Xie, "On information-theoretic scaling laws for wireless networks", submitted to *IEEE Transactions on Information Theory*, September 2008. Revised, July 2009.
- [J5] A. Alshamrani, L.-L. Xie, and X. Shen "Adaptive Admission Control and Channel Allocation Policy in Cooperative Ad Hoc Opportunistic Spectrum Networks", *IEEE Transactions on Vehicular Technology*, vol.59, no.4, pp.1618--1629, May 2010.
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- [J7] A. Alshamrani, X. Shen, and L.-L. Xie, "A cooperative MAC with efficient spectrum sensing algorithm for distributed opportunistic spectrum networks", *Journal of Communications*, vol.4, no.10, pp.728-740, November 2009.
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- [J9] J. Ghaderi, L.-L. Xie, and X. Shen, "Hierarchical cooperation in ad hoc networks: optimal clustering and achievable throughput", *IEEE Transactions on Information Theory*, vol.55, no.8, pp.3425-3436, August 2009.
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- [J12] J. She, F. Hou, P.-H. Ho, and L.-L. Xie, "IPTV over WiMAX: key success factors, challenges, and solutions", *IEEE Communications Magazine*, vol.45, no.8, pp.87-93, August 2007.

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- [J14] C. Li and L.-L. Xie, "On robust stability of discrete-time adaptive control", *Systems & Control Letters*, vol.55, no.6, pp.452-458, 2006.
- [J15] C. Li, L.-L. Xie, and L. Guo, "A polynomial criterion for adaptive stabilizability of discrete-time nonlinear systems", *Communications in Information and Systems*, vol.6, no.4, pp.273-298, 2006.
- [J16] L.-L. Xie and P. R. Kumar, "An achievable rate for the multiple-level relay channel", *IEEE Transactions on Information Theory*, vol.51, pp.1348-1358, April 2005.
- [J17] F. Xue, L.-L. Xie, and P. R. Kumar, "The transport capacity of wireless networks over fading channels", *IEEE Transactions on Information Theory*, vol.51, No.3, pp.834-847, March 2005.
- [J18] L.-L. Xie and P.R. Kumar, "A Network Information Theory for Wireless Communications: Scaling Laws and Optimal Operation", *IEEE Transactions on Information Theory*, vol.50, No.5, pp.748-767, May 2004.
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- [J25] L.-L. Xie and L. Guo, "Adaptive control of a class of discrete-time affine nonlinear systems", *Systems & Control Letters*, vol.35, no.3, pp.201-206, 1998.

- Book Chapters

- [BC1] L.-L. Xie and P. R. Kumar, "Information-theoretic studies of wireless sensor networks" in *Handbook on Array Processing and Sensor Networks*, S. Haykin and K. J. R. Liu editors, Wiley-IEEE Press, pp.669-692, 2009.

- [BC2] L.-L. Xie and P. R. Kumar, "Wireless network information theory" in *Advances in Network Information Theory*, P. Gupta, G. Kramer and A. van Wijngaarden editors, DIMACS, American Mathematical Society, Providence, RI, pp.151-158, 2004.
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- Conference Papers
- [C1] X. Zhang, L.-L. Xie and X. Shen "An energy-efficient bit allocation scheme in wireless sensor networks". in *Proc. IEEE GLOBECOM 2010*, Miami, December 6-10, 2010.
- [C2] X. Wu and L.-L. Xie, "On the optimality of successive decoding in compress-and-forward relay schemes". In *Proc. the 48<sup>th</sup> Annual Allerton Conference on Communications, Control, and Computing*, Monticello, Illinois, Sept. 29-Oct. 1, 2010.
- [C3] X. Wu and L.-L. Xie, "Codebook information does not reduce output entropy when rate is above capacity". in *Proc. the 48<sup>th</sup> Annual Allerton Conference on Communications, Control, and Computing*, Monticello, Illinois, Sept. 29-Oct. 1, 2010.
- [C4] X. Zhou, L.-L. Xie and X. Shen, "Low-density parity-check codes for two-way relay channels". in *Proc. IEEE 72nd Vehicular Technology Conference*, Ottawa, September 6-9, 2010.
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- [C7] L.-L. Xie, "A greedy omnidirectional relay scheme". In *Proc. the 11th Canadian Workshop on Information Theory*, Ottawa, Canada, May 13-15, 2009.
- [C8] X. Wu and L.-L. Xie, "AEP of output when rate is above capacity". In *Proc. the 11th Canadian Workshop on Information Theory*, Ottawa, Canada, May 13-15, 2009.
- [C9] B. Lin, M. Mehrjoo, P. H. Ho, L.L. Xie, and X. Shen, "Capacity enhancement with relay station placement in wireless cooperative networks", *IEEE WCNC'09*, Budapest, Hungary, April 5-8, 2009.

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- [C11] J. Ponniah and L.-L. Xie, "An achievable rate region for the two-way two-relay channel", in *2008 IEEE International Symposium on Information Theory*, Toronto, July 6-11, 2008.
- [C12] J. Ghaderi, L.-L. Xie and X. Shen, "Throughput optimization for hierarchical cooperation in ad hoc networks", in *Proc. 2008 IEEE International Conference on Communications*, Beijing, May 19-23, 2008.
- [C13] H. Keshavarz, L.-L. Xie and R. Mazumdar, "User capacity of fading multi-user channels with minimum rate constraint", in *Proc. 2008 IEEE International Conference on Communications*, Beijing, May 19-23, 2008.
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- [C18] C. Li, L.-L. Xie and L. Guo, "Robust stability of discrete-time adaptive nonlinear control", in *Proc. 16<sup>th</sup> IFAC World Congress*, Prague, July, 2005.
- [C19] C. Li and L.-L. Xie, "A note on robust stability of discrete-time adaptive nonlinear control". In *Proc. 23<sup>rd</sup> Chinese Control Conference*, August 10-13, 2004.
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- [C21] F. Xue, L.-L. Xie and P. R. Kumar, "The transport capacity of wireless networks over fading channels", in *Proc. 2004 IEEE International Symposium on Information Theory*, Chicago, June27-July 2, 2004.
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