

List of Publication

Journal Publications:

1. G. Atia, M. Sharif, and V. Saligrama, "On optimal outage in relay channels with general fading distributions," *submitted to IEEE Trans. on Info. Theory*, August 2006.
2. T. Al-Naffouri, M. Sharif, and B. Hassibi, "How much does correlation affect the sum-rate of MIMO downlink channels?" *accepted for publication at IEEE Trans. on Comm.*, 2006.
3. B. Hassibi and M. Sharif, "Fundamental limits on MIMO Broadcast Channels," *submitted to IEEE Jour. on Selected Areas Communications*, 2006.
4. M. Sharif and B. Hassibi, "High rate codes with bounded PMEPR for BPSK and other symmetric constellations," *IEEE Trans. on Comm.*, vol. 54, no. 7, pp. 1160-1164, July 2006.
5. M. Sharif and B. Hassibi, "Delay considerations for opportunistic scheduling in broadcast fading channels," *to appear in IEEE Trans. on Wireless Comm.*, 2006.
6. M. Sharif and B. Hassibi, "A Comparison of time-sharing, beamforming, and DPC for MIMO broadcast channels with many users," *to appear in IEEE Trans. on Comm*, 2006.
7. C. Florens, M. Sharif, and R. J. McEliece, "Random Sensory Networks: A Delay Analysis", *submitted to IEEE Trans. on Info. Theory*, April 2004 (revised August 2006).
8. M. Sharif, C. Florens, M. Fazel, and B. Hassibi, "Amplitude and sign adjustment for peak to average power reduction," *IEEE Trans. on Comm*, vol. 53, no. 8, pp. 1243-1248, August 2005.
9. M. Sharif and B. Hassibi, "On the capacity of MIMO broadcast channel with partial side information," *IEEE Trans. on Info. Theory*, vol. 51, no. 2, pp. 506-522, Feb. 2005.
10. M. Sharif and B. Hassibi, "Existence of codes with constant PMEPR and related design," *IEEE Trans. Signal Processing*, vol. 52, no. 10, pp. 2836-2847, October 2004.
11. M. Sharif and B. Hassibi, "On the achievable average power reduction of optical MSM signals", *IEEE Comm. Letters*, vol. 8, no. 2, pp. 84-86, February 2004.
12. M. Sharif and B. Hassibi, "On multicarrier signals where the PMEPR of a random codeword is asymptotically $\log n$," *IEEE Trans. on Info. Theory*, vol. 50, no. 5, pp. 895-903, May 2004.
13. M. Sharif, M. Gharavi-Alkhansari, and B. H. Khalaj, "On the peak to average power of OFDM signals based on oversampling," *IEEE Trans. on Comm*, vol. 51, no.1, pp. 72-78, January 2003.
14. H. Saeedi, M. Sharif, and F. Marvasti, "Clipping noise cancellation in OFDM systems using oversampled signal reconstruction," *IEEE Comm. Letters*, vol. 6, no. 2, pp. 73-76, February 2002.

Conference Publications:

1. G. Atia, M. Sharif, and V. Saligrama, "On optimal outage in relay channels with general fading distributions," in *Proc. 44th Annual Allerton Conf. on Communication, Control, and Computing* (invited paper), Monticello, IL, October 2006.
2. I. Stojanovic, M. Sharif, and P. Ishwar, "Diversity-Multiplexing tradeoff in broadcast channels: an opportunistic approach," in *Proc. 44th Annual Allerton Conf. on Communication, Control, and Computing* (invited paper), Monticello, IL, October 2006.
3. M. Sharif, V. Saligrama, and G. Atia, "Outage capacity of relay channels in low SNR: an adaptive strategy," *IEEE Communication Theory Workshop*, Puerto Rico, May 2006.
4. A. Hassibi and M. Sharif, "Efficiency of polymerase chain reaction processes: a stochastic model," in *Proc. IEEE Inter. Workshop on Genomic Signal Processing and Statistics*, May 2006.
5. A. F. Dana, M. Sharif, and B. Hassibi, "On the capacity region of multi-antenna Gaussian broadcast channels with estimation error," *submitted to IEEE Inter. Symp. Info. Theory*, 2006.
6. T. Al-Naffouri, M. Sharif, and B. Hassibi, "How much does correlation affect the sum-rate of MIMO downlink channels?" *submitted to IEEE Inter. Symp. Info. Theory*, 2006.
7. M. Sharif, A. F. Dana, and B. Hassibi, "Differentiated rate scheduling in Gaussian broadcast channels," in *Proc. IEEE Inter. Symp. Info. Theory*, 2005.
8. M. Fakhereddin, M. Sharif and B. Hassibi, "Throughput analysis in wideband MIMO broadcast channels with partial feedback," in *Proc. IEEE Workshop on Signal Proc. for Wireless Comm.*, June 2005.
9. M. Sharif and B. Hassibi, "Towards closing the gap between PMEPR of multicarrier and single carrier signals," *in Proc. IEEE Workshop on Signal Proc. for Wireless Comm.*, June 2005.
10. M. Sharif and B. Hassibi, "A delay analysis for opportunistic transmission in fading broadcast channels," in *Proc. IEEE INFOCOM*, Miami, FL, March 2005.
11. M. Sharif and B. Hassibi, "Delay/throughput analysis of broadcast fading channels," in *Proc. 42nd Annual Allerton Conf. on Communication, Control, and Computing* (invited paper), Monticello, IL, October 2004.
12. C. Florens, M. Sharif, R. J. McEliece, "Delay issues in line sensory networks," in *Proc. IEEE Inter. Symp. Info. Theory*, Chicago, IL, June 2004.
13. M. Sharif and B. Hassibi, "A Comparison of time-sharing, beamforming, and DPC for MIMO broadcast channels with many users," in *Proc. IEEE Inter. Symp. Info. Theory*, Chicago, IL, June 2004.
14. M. Sharif and B. Hassibi, "Delay guarantee versus throughput in broadcast fading channels," in *Proc. IEEE Inter. Symp. Info. Theory*, Chicago, IL, June 2004.
15. M. Sharif, C. Florens, M. Fazel and B. Hassibi, "Peak to average power reduction using amplitude and sign adjustment," in *Proc. IEEE Inter. Conf. Comm.*, vol. 2, pp. 837-841, Paris, France, June 2004.

16. M. Sharif and B. Hassibi, "Asymptotic results on the sum rate capacity of MIMO broadcast channels," in *Proc. 41st Annual Allerton Conf. on Communication, Control, and Computing* (invited paper), Monticello, IL, October 2003.
17. C. Florens, M. Sharif, and R. J. McEliece, "Random sensory networks: a delay analysis," in *Proc. 41st Annual Allerton Conf. on Commu., Control, and Computing*, Monticello, IL, October 2003.
18. A. F. Dana, M. Sharif, B. Hassibi, and M. Effros, "Is broadcast channel plus multiaccess optimal for Gaussian wireless networks?," in *Proc. 37th Asilomar Conf. on Signals, Systems, and Computers*, vol. 2, pp. 1748-1752, Pacific Grove, CA, November 2003.
19. M. Sharif and B. Hassibi, "On the capacity of MIMO broadcast channel with partial CSI," in *Proc. 37th Asilomar Conf. on Signals, Systems, and Computers*, vol. 1, pp. 958-962, Pacific Grove, CA, November 2003.
20. M. Sharif and B. Hassibi, "Asymptotic probability bounds on the peak distribution of complex multicarrier signals," in *Proc. of 36th Asilomar Conf. on Signals, Systems, and Computers*, vol. 1, pp. 171-175, Pacific Grove, CA, November 2002.
21. M. Sharif and B. Hassibi, "On the existence of codes with constant peak to mean envelope power ratio for multicarrier signals," in *Proc. IEEE Inter. Symp. Info. Theory*, Yokohama, Japan, July 2003.
22. M. Sharif and B. Hassibi, "A deterministic algorithm that achieves the PMEPR of $c \log n$ for multicarrier signals," in *Proc. IEEE Inter. Conf. Acous. Speech Signal Processing*, vol. 4, pp. 540-543, April 2003.
23. M. Sharif and B. Hassibi, "On the average power of multiple subcarrier intensity modulated optical signals: Nehari's problem and coding bound," in *Proc. IEEE Inter. Conf. Comm.*, vol. 4, pp. 2969-2973, Anchorage, AK, May 2003.
24. M. Sharif and B. Hassibi, "On the asymptotic peak distribution of multicarrier signals: symmetric QAM/PSK constellations and spherical codes," in *Proc. of 40th Annual Allerton Conf. on Commu., Control, and Computing*, Monticello, IL, October 2002.
25. M. Sharif, M. Gharavi-Alkhansari, and B. H. Khalaj, "New results on the peak power problem of OFDM signals based on oversampling," in *Proc. IEEE Inter. Conf. on Comm.*, vol. 2, pp. 866-871, New York, May 2002.
26. M. Sharif and B. H. Khalaj, "Peak to mean envelope power ratio of oversampled OFDM signal: an analytical approach," in *Proc. of IEEE Inter. Conf. on Comm.*, vol. 5, pp. 1476-1480, Helsinki, Finland, June 2001.