Distributed Optimization course / Project session 1
September 2013

[1] B. Johansson, M. Rabi and M. Johansson, A randomized incremental sub gradient method for distributed optimization in networked systems, SIAM Journal on Optimization, Vol. 20, No. 3, pp. 1157-1170, 2009.

[2] B. Johansson, P. Soldati and M. Johansson, Mathematical decomposition techniques for distributed cross-layer optimization of data networks, IEEE Journal on Selected Areas in Communications, Vol. 24, No. 8, pp. 1535-1547, 2006.

[3] L. Xiao, M. Johansson, and S. Boyd, Simultaneous routing and resource allocation via dual decomposition, IEEE Transactions on Communications, vol. 52, no. 7, pp. 1136–1144, 2004.

[4] J. Duchi, A. Agarwal, M. Johansson and M. I. Jordan, Ergodic mirror descent, SIAM Journal on Optimization, Vol. 22, No. 4, pp. 1549–1578, 2012.

[5] J. Duchi, A. Agarwal, and M. Wainwright, Dual Averaging for Distributed Optimization: Convergence and Network Scaling, IEEE Transactions on Automatic Control, Vol. 57, No. 3, pp. 592–606, 2012.

[6] X. Wang and K. Kar, Cross-Layer Rate Optimization for Proportional Fairness in Multihop Wireless Networks With Random Access, IEEE Journal on Selected Areas in Communications, Vol. 24, No. 8, pp. 1548-1559, 2006.

[7] Y. Wu and S. Y. Kung, Distributed Utility Maximization for Network Coding Based Multicasting: A Shortest Path Approach, IEEE Journal on Selected Areas in Communications, Vol. 24, No. 8, pp. 1475-1488, 2006.

[8] M. Zhu and S. Martínez, An approximate dual subgradient algorithm for distributed non-convex constrained optimization, IEEE Transactions on Automatic Control, 58 (6) , 1534-1539, 2013.

[9] M. Zhu and S. Martínez, On distributed convex optimization under inequality and equality constraints via primal-dual subgradient methods, IEEE Transactions on Automatic Control, 57 (1), 151-164, 2012.

[10] S. Lee and A. Nedic, Distributed Random Projection Algorithm for Convex Optimization, IEEE Journal of Selected Topics in Signal Processing, a special issue on Adaptation and Learning over Complex Networks, 7, 221-229, 2013

[11] A. Nedic, Asynchronous Broadcast-Based Convex Optimization over a Network, IEEE Transactions on Automatic Control 56 (6) 1337-1351, 2011.

[12] A. Nedic, A. Ozdaglar, and A.P. Parrilo, Constrained Consensus and Optimization in Multi-Agent Networks, IEEE Transactions on Automatic Control 55 (4) 922--938, 2010.

[13] A. Nedic and D.P. Bertsekas, Incremental Subgradient Methods for Nondifferentiable Optimization, SIAM J. on Optimization, Vol. 12, pp. 109-138, 2001.

[14] Y. Nesterov, Smooth minimization of non-smooth functions, Mathematical Programming 103 (1), 127-152, 2005.

[15] Y. Nesterov, Primal-dual subgradient methods for convex problems, Mathematical programming 120 (1), 221-259, 2009.

[16] A. Olshevsky and J. N. Tsitsiklis, Convergence Speed in Distributed Consensus and Averaging, SIAM Journal on Control and Optimization, Vol. 48, No. 1, 2009, pp. 33-55.

[17] J. N. Tsitsiklis, D. P. Bertsekas and M. Athans, "Distributed Asynchronous Deterministic and Stochastic Gradient Optimization Algorithms," IEEE Transactions on Automatic Control, Vol. 31, No. 9, 1986, pp. 803-812.

[18] S. Boyd, A. Ghosh, B. Prabhakar, D. Shah, Randomized Gossip Algorithms, IEEE Transactions on Information Theory, Special issue of IEEE Transactions on Information Theory and IEEE ACM Transactions on Networking, 52(6):2508-2530, 2006.

[19] Libin Jiang and Jean Walrand, "A Distributed CSMA Algorithm for Throughput and Utility Maximization in Wireless Networks", IEEE/ACM Transactions on Networking.

[20] A. Beck and M. Teboulle, A Fast Iterative Shrinkage-Thresholding Algorithm for Linear Inverse Problems, Siam Journal on Imaging Sciences, Vol. 2, No. 1, pp. 183–202, 2009.

[21] L. Xiao and S. Boyd, Optimal Scaling of a Gradient Method for Distributed Resource Allocation, Journal of optimization theory and applications, Vol. 129, No. 3, pp. 469–488, 2006.

[22] E. Ghadimi, I. Shames, M. Johansson, Multi-step gradient methods for networked optimization, IEEE Transactions on Signal Processing, 2013.

[23] Frank Kelly, Aman Maulloo and David Tan, Rate control in communication networks: shadow price, proportional fairness and stability, Journal of the Operational Research Society 49 (1998) 237-252.