

## EE-717: Probabilistic Graphical Models (Fall 2011)

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### Pre-approved list of papers

1. M.J. Wainwright and M.I. Jordan, Graphical Models, exponential families, and variational inference, 2003.
2. M. I. Jordan, Z. Ghahramani, T. S. Jaakkola and L. K. Saul, An Introduction to Variational Methods for Graphical Models, Machine Learning vol. 37, 1999
3. L. Carin, R. Baraniuk, V. Cevher, D. Dunson, M. Jordan, G. Sapiro, and M. Wakin. A Bayesian Approach to Learning Low-Dimensional Signal Models from Incomplete Measurements, IEEE Signal Processing Magazine, 2010.
4. V. Cevher, P. Indyk, L. Carin, and R. Baraniuk. Sparse Signal Acquisition and Recovery with Graphical Models. IEEE Signal Processing Magazine, 26, 2010.
5. Graphical Models Concepts in Compressed Sensing. Andrea Montanari
6. T. Griffiths and Z. Ghahramani. Infinite latent feature models and the Indian buffet process. In Advances in Neural Information Processing Systems (NIPS) 18, 2005.
7. V. Cevher, M. F. Duarte, C. Hedge, and R. Baraniuk. Sparse signal recovery using Markov random fields. In Neural Information Processing Systems (NIPS), 2008.
8. Chandrasekaran, V. and Recht, B. and Parrilo, P.A. and Willsky, A.S, The convex geometry of linear inverse problems arXiv:1012.0621.
9. V. Chandrasekaran, P. A. Parrilo, and A. S. Willsky, Latent Variable Graphical Model Selection via Convex Optimization, Preprint, August 2010.
10. V. Chandrasekaran, P. A. Parrilo, and A. S. Willsky, Convex Graph Invariants, Preprint, December 2010.
11. S. Roweis, Z. Ghahramani: A Unifying Review of Linear Gaussian Models Neural Computation 11(2), 1999, 305-345
12. M. Tipping, C. Bishop: Probabilistic Principal Components Analysis JRSS B 61(3), 1999, 611-622
13. Yedidia, Freeman, Weiss Constructing free energy approximations and generalized belief propagation algorithms IEEE Transactions on Information Theory
14. Minka, T. Expectation Propagation for Approximate Bayesian Inference UAI 17 (2001)
15. Palmer, J. and Wipf, D. and Kreutz-Delgado, K. and Rao, B. Variational EM Algorithms for Non-Gaussian Latent Variable Models NIPS 18 (2006)
16. Tom Heskes Stable fixed points of loopy belief propagation are minima of the Bethe free energy NIPS 15 (2003)
17. C. Huang and A. Darwiche Inference in Belief Networks: A procedural guide Intl. J. Approximate Reasoning, 15(3):225-263 (1996) [derives Junction Tree Algorithm]
18. M. J. Wainwright and T. Jaakkola and A. S. Willsky A New Class of Upper Bounds on the Log Partition Function UAI 18 (2002)

19. F. R. Kschischang, B. J. Frey and H.-A. Loeliger Factor graphs and the sum-product algorithm IEEE Transactions on Information Theory (2001)