* A Study of Lagrangean Decompositions and Dual Ascent Solvers for Graph Matching
  + Ongoing reading through this. Below are several of the papers referenced that I am further looking into to both understand the notation presented and the underlying concepts. I am about 50% through this and am starting to work on the algorithm itself.
* [52] L. Torresani, V. Kolmogorov, and C. Rother. A dual decomposition approach to feature correspondence. IEEE Trans. Pattern Anal. Mach. Intell., 35(2):259–271, 2013. 1, 2, 7
* [61] Z. Zhang, Q. Shi, J. McAuley, W. Wei, Y. Zhang, and A. van den Hengel. Pairwise matching through max-weight bipartite belief propagation. In The IEEE Conference on Computer Vision and Pattern Recognition (CVPR), June 2016. 2, 4, 6, 7
* [34] V. Kolmogorov. A new look at reweighted message passing. IEEE Trans. Pattern Anal. Mach. Intell., 37(5):919–930, 2015
* [33] V. Kolmogorov. Convergent tree-reweighted message passing for energy minimization. IEEE Trans. Pattern Anal. Mach. Intell., 28(10):1568–1583, 2006
  + TRW-S (Tree Reweighted) is an algorithm that uses Belief Propogation and techniques related to trees to approximate the energy minimization problem. It’s ideas are further expanded upon in [X]
* [55] T. Werner. A linear programming approach to max-sum problem: A review. IEEE Trans. Pattern Analysis and Machine Intelligence, 29(7):1165–1179, 2007
  + Provided information about the local polytope relaxation and helped explain notation.
* [35] represented as an integer linear program (ILP)
  + Explains how the local polytope relaxation becomes the original problem when adding the additional constraint that each value is 0 or 1. Also explains notation.
* [54] M. J. Wainwright and M. I. Jordan. Graphical models, exponential families, and variational inference. Foundations and Trends in Machine Learning, 1(1-2):1–305, 2008
  + Is referred to because it explains “overcomplete representation”. The definition is not clear with how it relates to the current problem. I am still reading this to understand it.
* [50] A Dual Ascent Framework for Lagrangean Decomposition of Combinatorial Problems
  + Prior work on efficient “message-passing” algorithms. Still reading to understand this paper’s algorithm.
* [7] R. K. Ahuja, T. L. Magnanti, and J. B. Orlin. Network Flows: Theory, Algorithms, and Applications. Prentice Hall, 1 edition, Feb. 1993.
  + Explains network flows. A network flow problem is essentially like you have network (graph) of pipes from one point to another and the question is what is the maximum amount of flow from the source to the sink, given that each pipe has a maximum flow rate. Min cost flow is a variant of the problem in which pipes also have unit costs associated with them. The goal is to find which of the max flows (there may be multiple) has the lowest associated cost. There is a way of solving the problem related to min cost max flows.