FancyMc Moves
Fusion Moves for Multicut Objectives

Anonymous CVPR submission

Paper ID ****

Abstract

Multicuts rule.

1. Introduction

The tale of the multicut

1.1. Related Work

1.1.1 Multicut

- Andres *et al*. [1]
- Kappes *et al*. [5]
- Bagon and Galun [2]
- Yarkony *et al*. [6]
- Beier *et al*. [3]

1.1.2 Fusion Moves

Move making algorithms, in particular fusion moves, have become increasingly popular for energy minimization [**?**, 4]. For many large scale computer vision applications fusion moves lead to good approximations with state of the art any time performance [4].

.

2. Name of My Method (Union Fusion Cut)

Global optimal solvers for multicut do not scale beyond ??? [**?**]. Good approximate solvers for planar graphs exist [3, 6] but have difficulties to find good solutions for non planar graphs [3].

2.1. Proposal Generators

2.2. Fusion Move Solver

3. Experiments

4. Conclusion

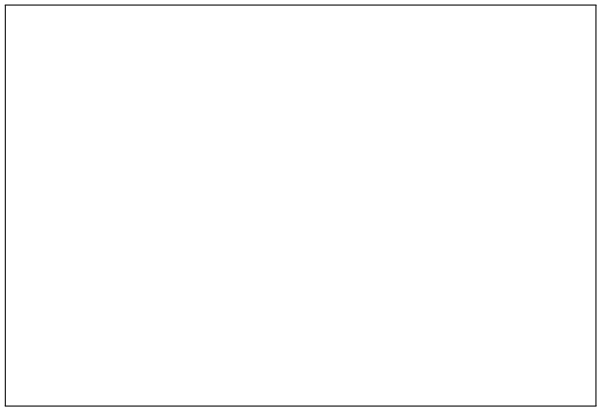


Figure 1: Example of caption. It is set in Roman so that mathematics (always set in Roman: $B \sin A = A \sin B$) may be included without an ugly clash.

References

[1] B. Andres, J. H. Kappes, T. Beier, U. Köthe, and F. A. Hamprecht. Probabilistic image segmentation with closedness constraints. In *ICCV*, pages 2611–2618. IEEE, 2011. 1

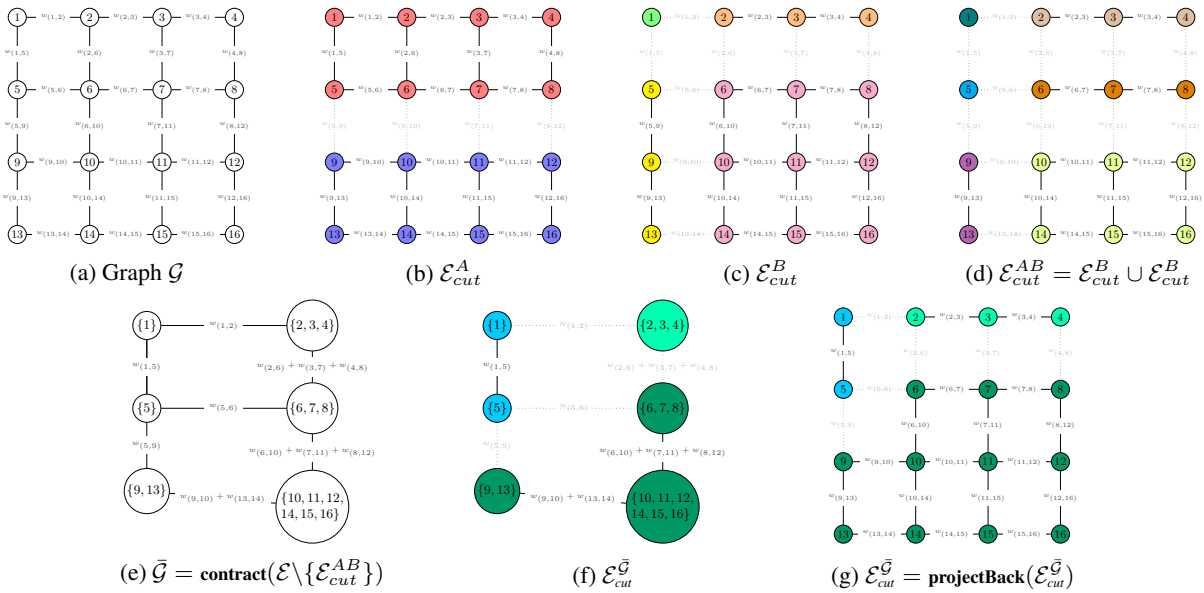
[2] S. Bagon and M. Galun. Large scale correlation clustering optimization. *CoRR*, abs/1112.2903, 2011. 1

[3] T. Beier, T. Kroeger, J. H. Kappes, U. Koethe, and F. Hamprecht. Cut, Glue & Cut: A Fast, Approximate Solver for Multicut Partitioning. In *IEEE Conference on Computer Vision and Pattern Recognition 2014*, 2014. 1

[4] J. H. Kappes, T. Beier, and C. Schnörr. Map-inference on large scale higher-order discrete graphical models by fusion moves. In *International Workshop on Graphical Models in Computer Vision*, 2014. Oral. 1

[5] J. H. Kappes, M. Speth, B. Andres, G. Reinelt, and C. Schnörr. Globally optimal image partitioning by multicuts. In *EMMCVPR*, pages 31–44. Springer, 2011. 1

[6] J. Yarkony, A. Ihler, and C. C. Fowlkes. Fast planar correlation clustering for image segmentation. In *ECCV*. Springer, 2012. 1



(a) Graph $\mathcal{G}$ (b) $\mathcal{E}^{A}_{cut}$ (c) $\mathcal{E}^{B}_{cut}$ (d) $\mathcal{E}^{AB}_{cut} = \mathcal{E}^{B}_{cut} \cup \mathcal{E}^{B}_{cut}$

(e) $\bar{\mathcal{G}} = \textbf{contract}(\mathcal{E} \backslash \{\mathcal{E}^{AB}_{cut}\})$ (f) $\mathcal{E}^{\bar{\mathcal{G}}}_{cut}$ (g) $\mathcal{E}^{\bar{\mathcal{G}}}_{cut} = \textbf{projectBack}(\mathcal{E}^{\bar{\mathcal{G}}}_{cut})$

Figure 2: Describe Method here