Cutting Constraints on Conservation Tracking
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Kodai Matsuoka
kodaig06@gmail.com

Yuyan Li
yuyan.li@gmx.net

Jui-Hung Yuan
j.yuan@stud.uni-heidelberg.de

Abstract

1. Introduction

Something about tracking.

2. Constrained Network Flow Reformulation of Consveration Tracking

2.1. Conservation Tracking Model

We formualte tracking by assignment as a graphical model with detecetion nodes and stuff.

This graphical model will be reformulated into a network flow and solved as an ILP.

2.2. ILP for Network Flow

To solve ILPs we do LP relaxation.
Our Network flow ILP looks like this:
A LOT OF MATH

2.3. Loosening Constraints

On this we do cutting constraints! Because TUM something.

What we do is cut all constraints and try to solve. If it's solved, great, if not, we add constraints to nodes with flow violation. Then solve again. Repeat until we find valid solution or no new violated nodes.

3. Experiments and Results

Our models are: Drosophila and Rapoport (with and without mergers?)

3.1. Solutions

3.2. Computation Time

4. Conclusion

It works but isn't really worth it.