24 Minimum Cuts in Surface Graphs[∅]

Only describe the homology-cover algorithm. Mention the crossing sequence algorithm in passing, if at all. (But remember that the homology cover algorithm still needs some simple crossing arguments to enable MSSP!)

24.1 Duality with Even Subgraphs

24.2 $\mathbb{Z}_2$-Homology Cover

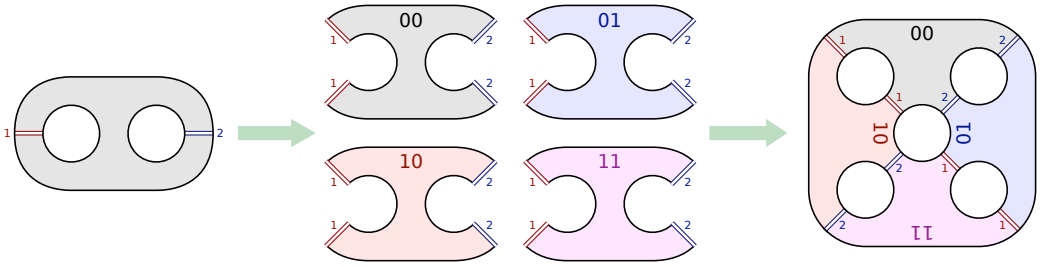

Figure 1: Building the homology cover of a pair of pants

24.3 $\mathbb{Z}_2$-Minimal Cycles

Build the homology cover. Also lift greedy primal system of arcs.

24.4 $\mathbb{Z}_2$-Minimal Even Subgraphs

Dynamic programming!

24.5 NP-hardness (??)

24.6 References

1. Chambers Erickson Fox Nayyeri
2. Kutz

24.7 Aptly Named Sir

- Crossing-bound/homotopy algorithm
- Global mincut