

Simultaneous Drawing of Planar Graphs with Right-Angle Crossings and Few Bends

Micheal A. Bekos¹

Thomas C. van Dijk²

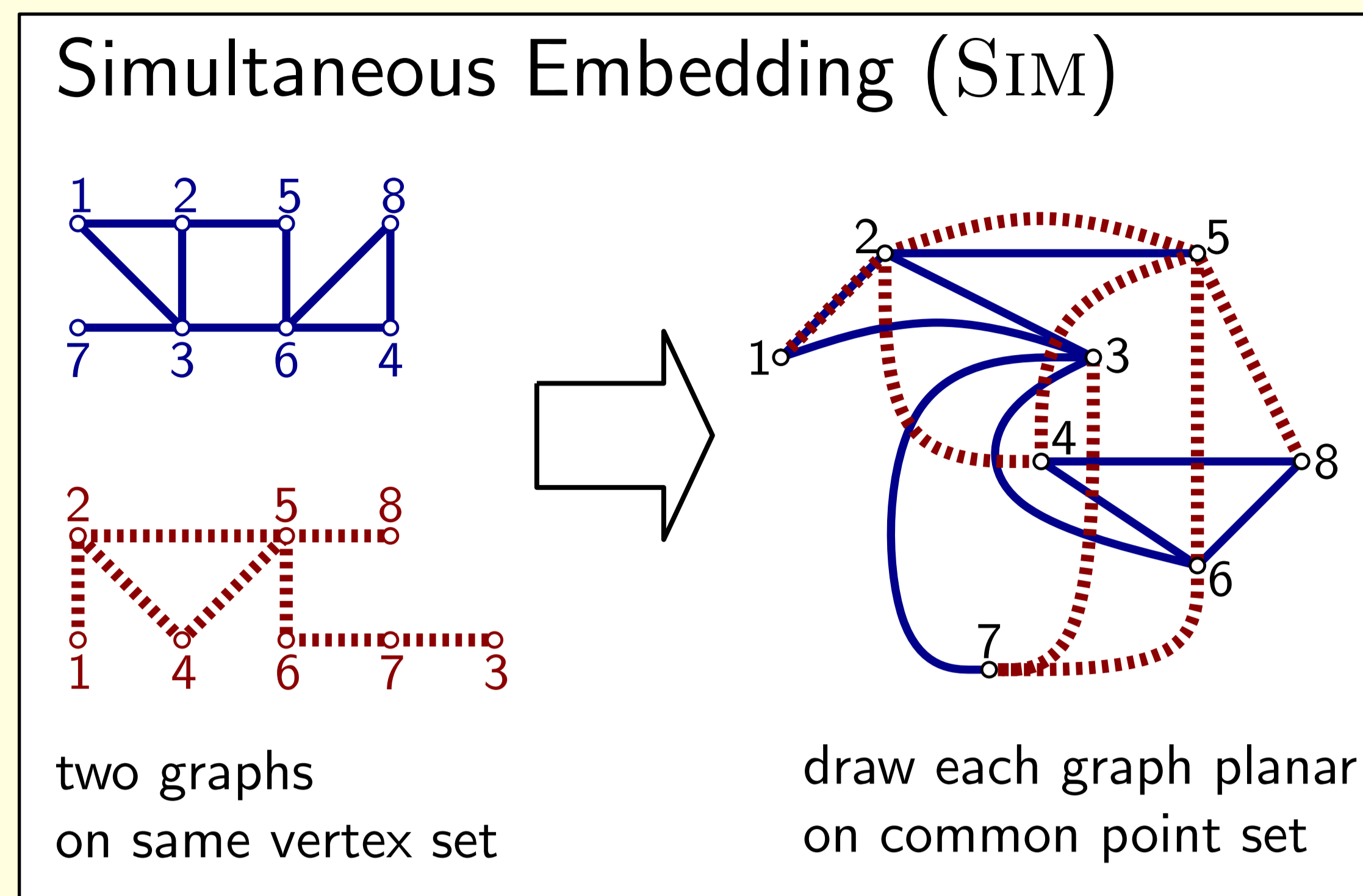
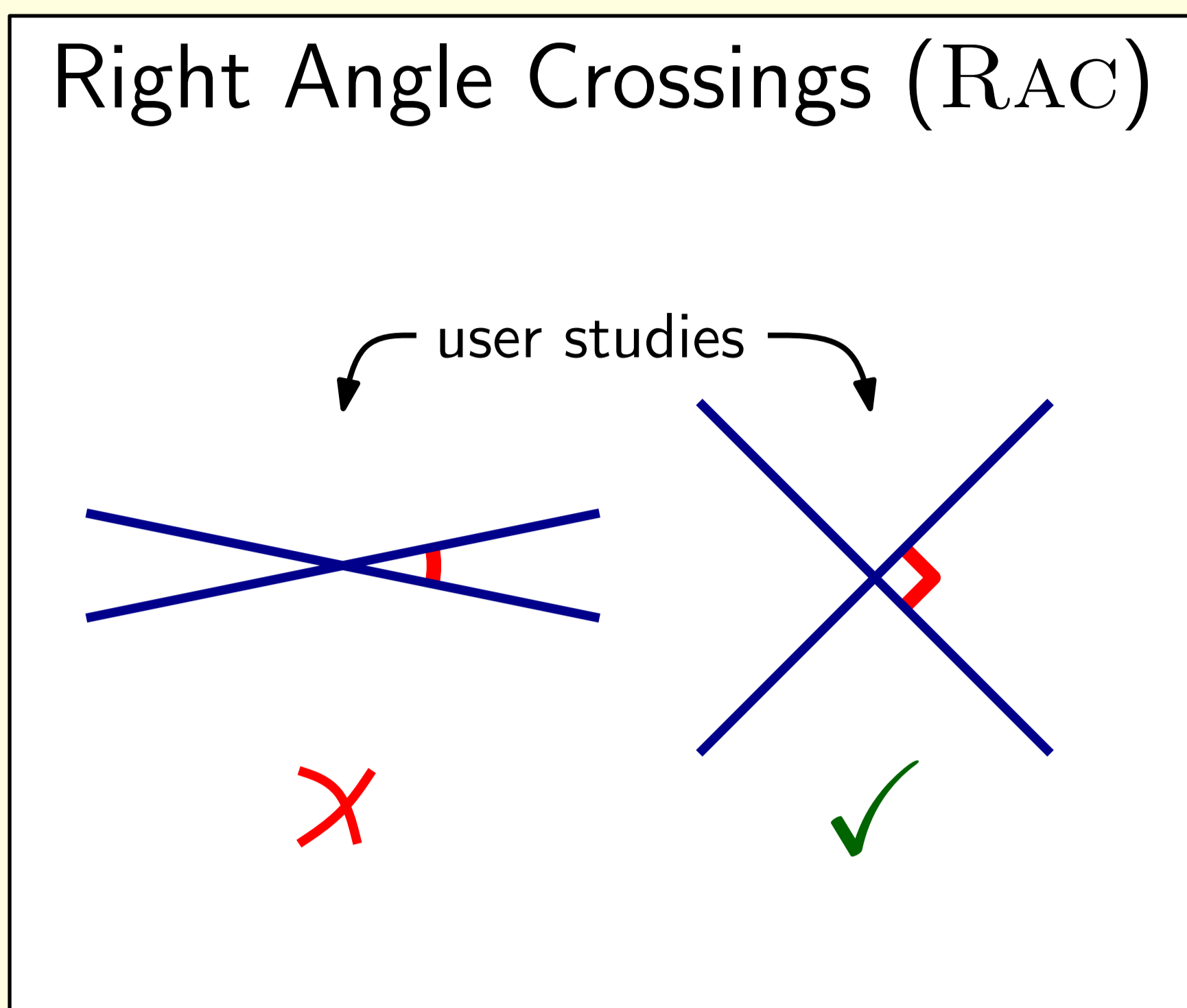
Philipp Kindermann²

Alexander Wolff²

¹Wilhelm-Schickard-Institut für Informatik, Universität Tübingen

²Lehrstuhl für Informatik I, Universität Würzburg

Problem



= RACSIM

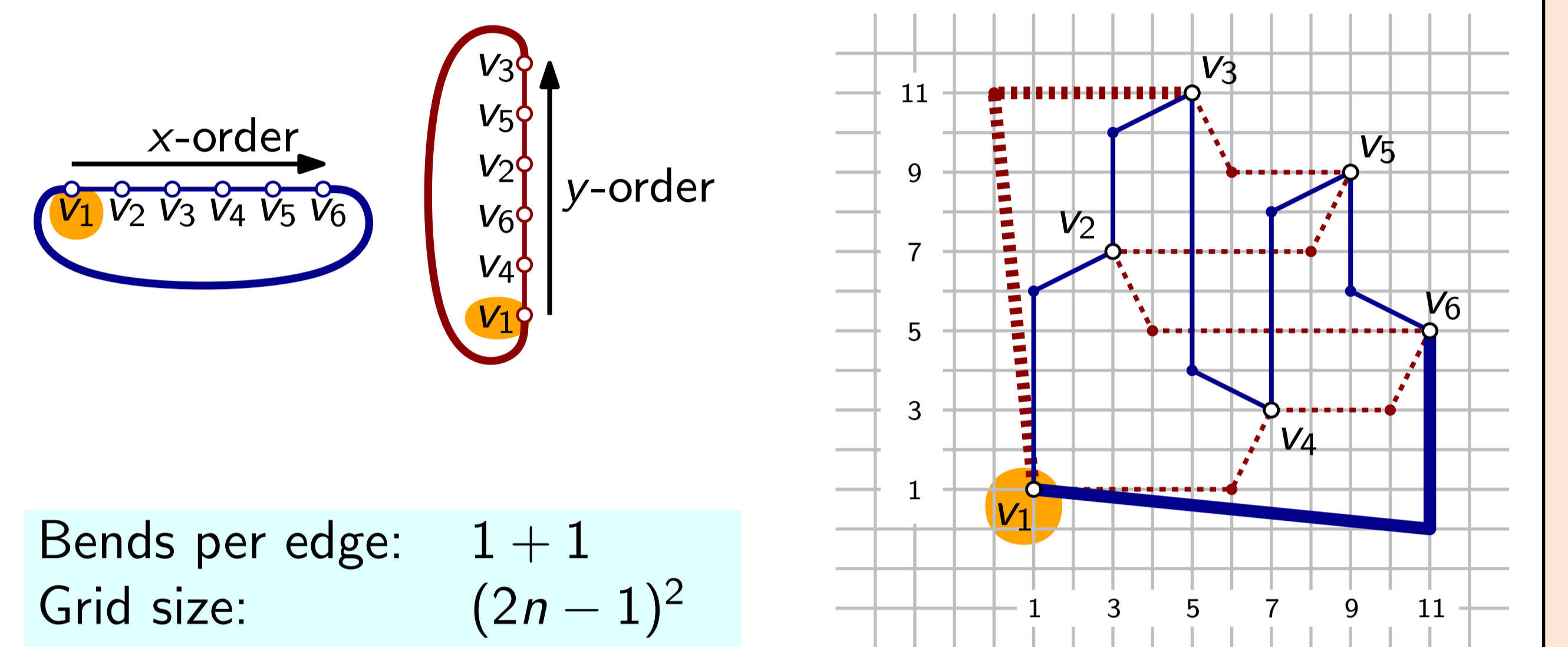


full version: arxiv.org/abs/1408.3325

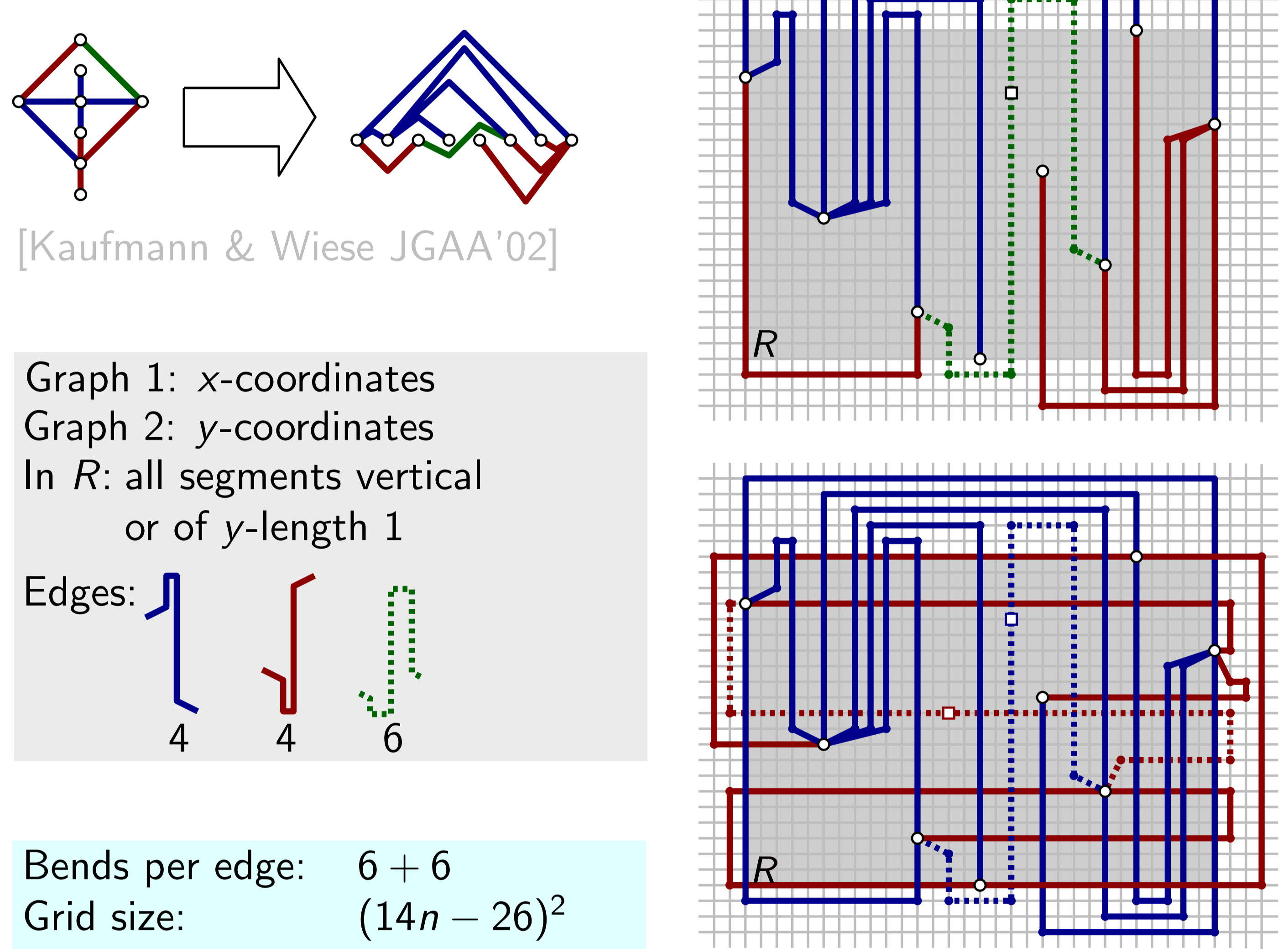
Overview

Graph classes		Number of bends
Planar	+ Planar	6 + 6
2-page book emb.	+ 2-page book emb.	4 + 4
Outerplanar	+ Outerplanar	3 + 3
Cycle	+ Cycle	1 + 1
Caterpillar	+ Cycle	1 + 1
Four Matchings		1 + 1 + 1 + 1
Tree	+ Matching	1 + 0
Wheel	+ Matching	2 + 0
Outerpath	+ Matching	2 + 1

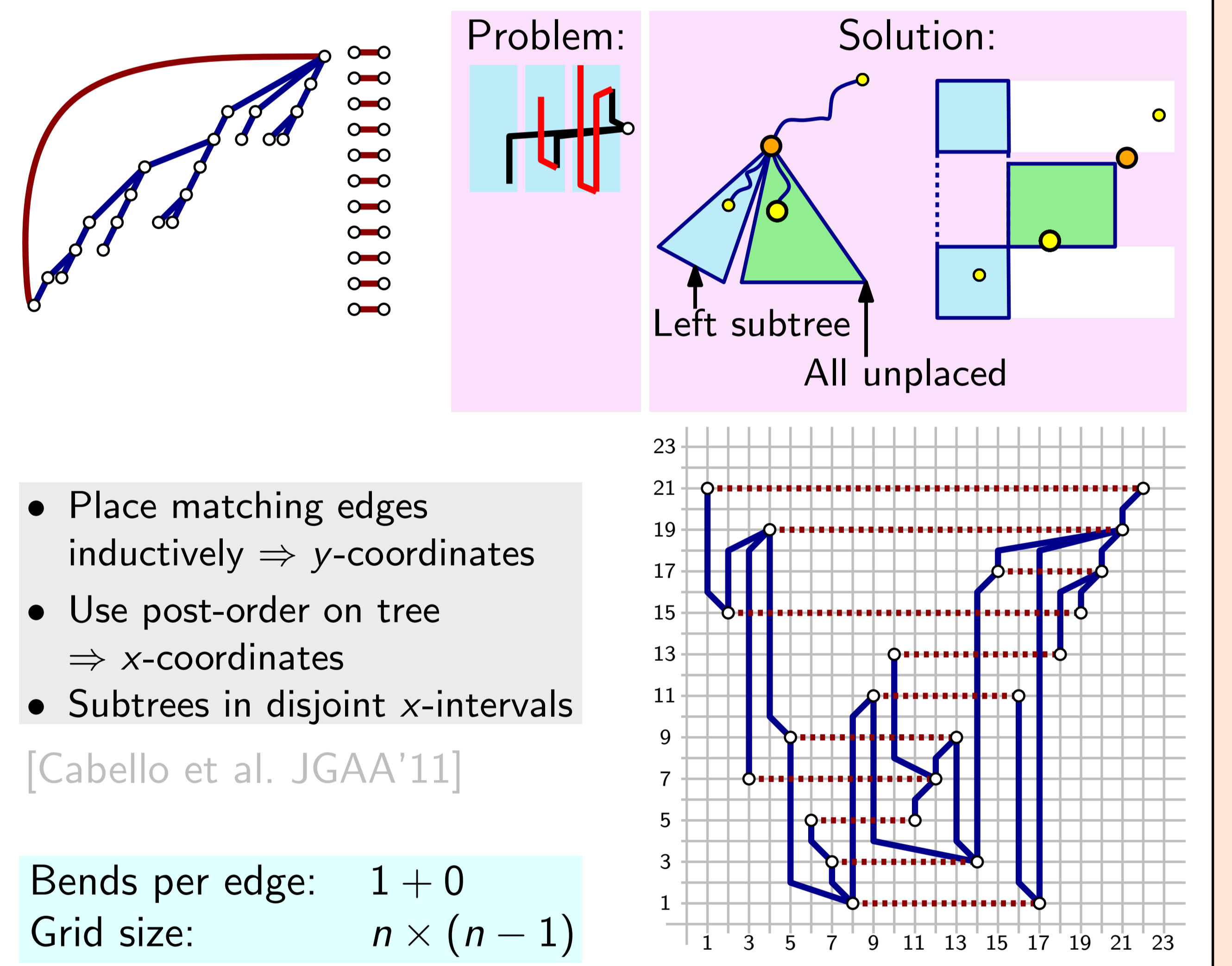
Cycle + Cycle



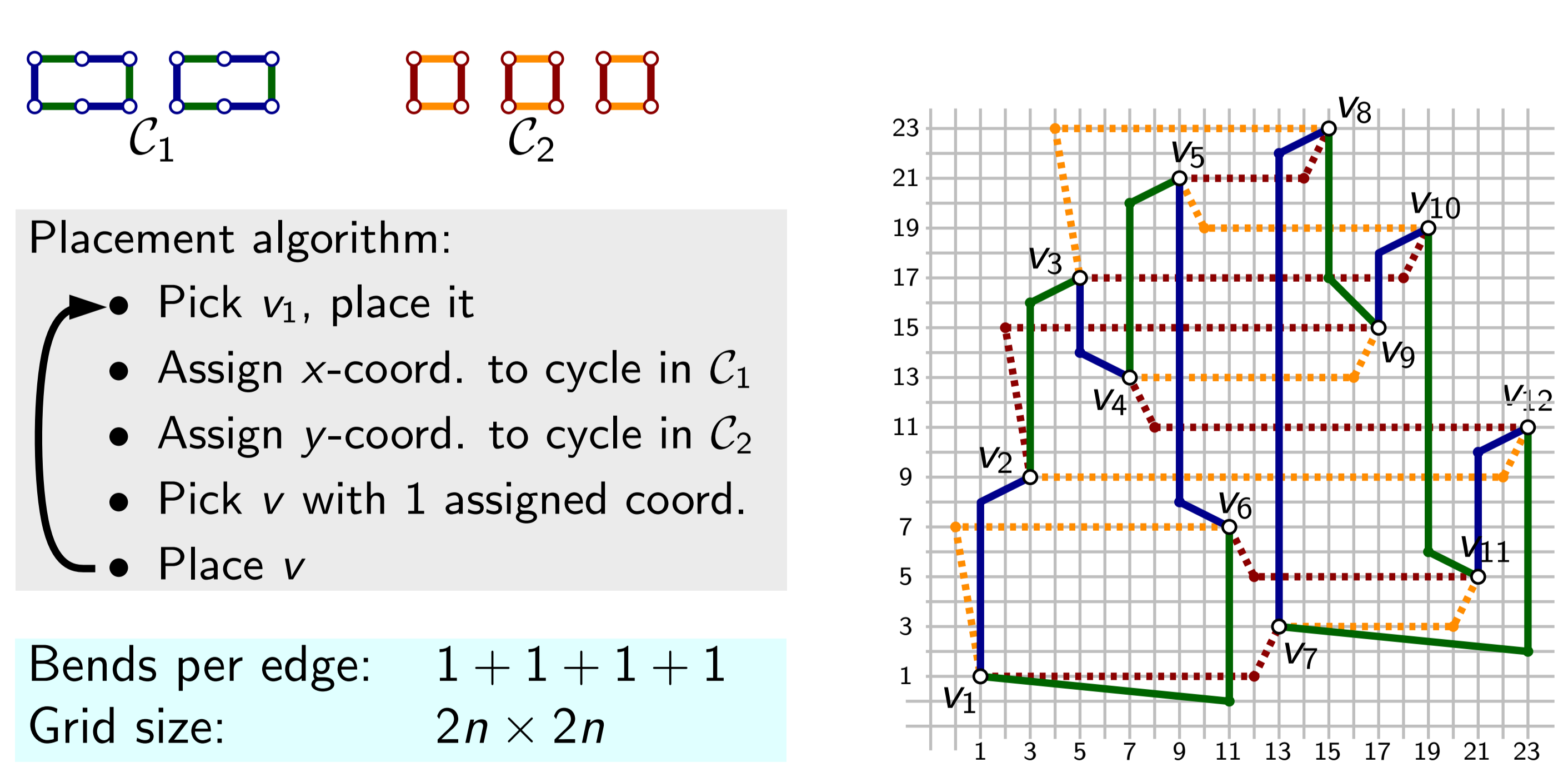
Planar + Planar



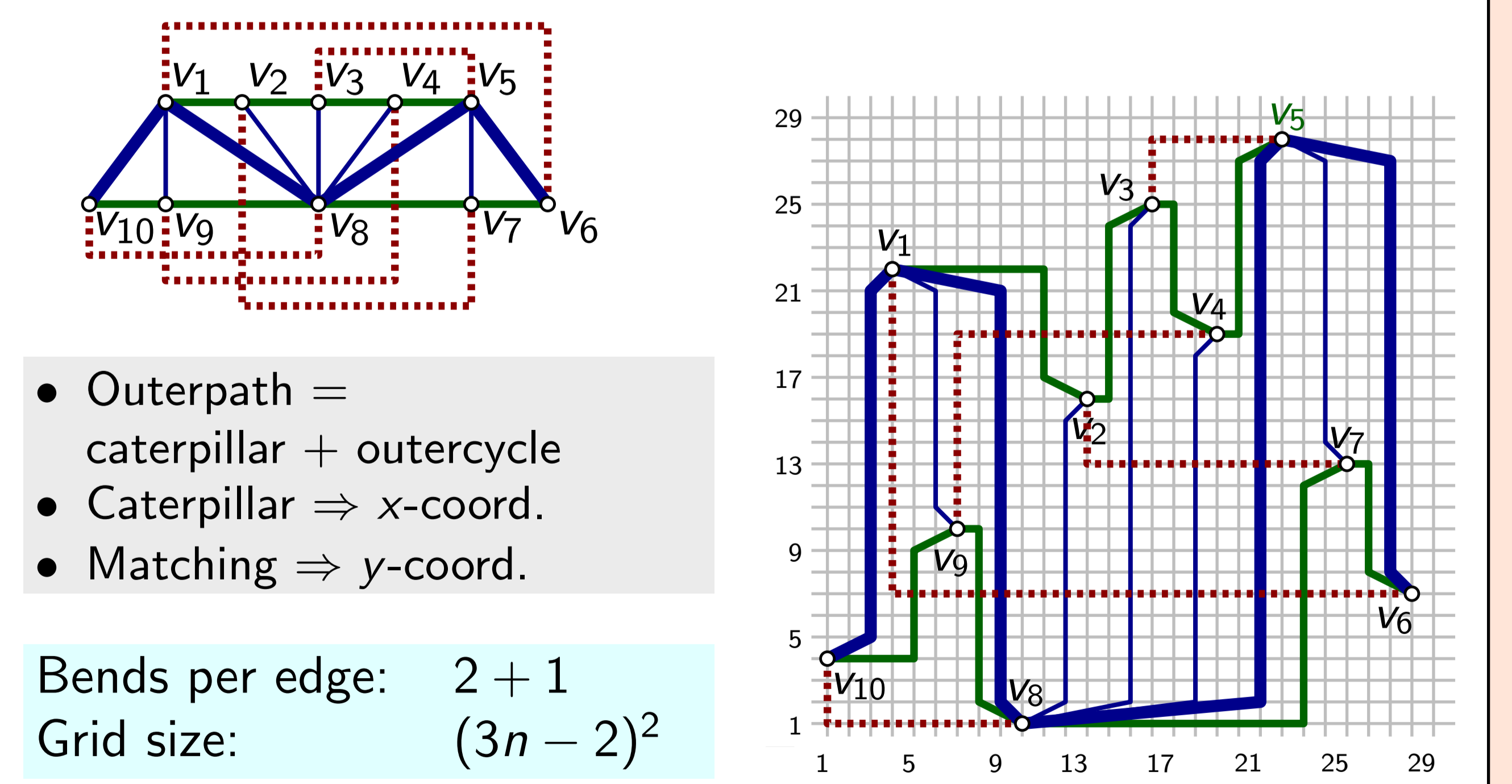
Tree + Matching



Four Matchings



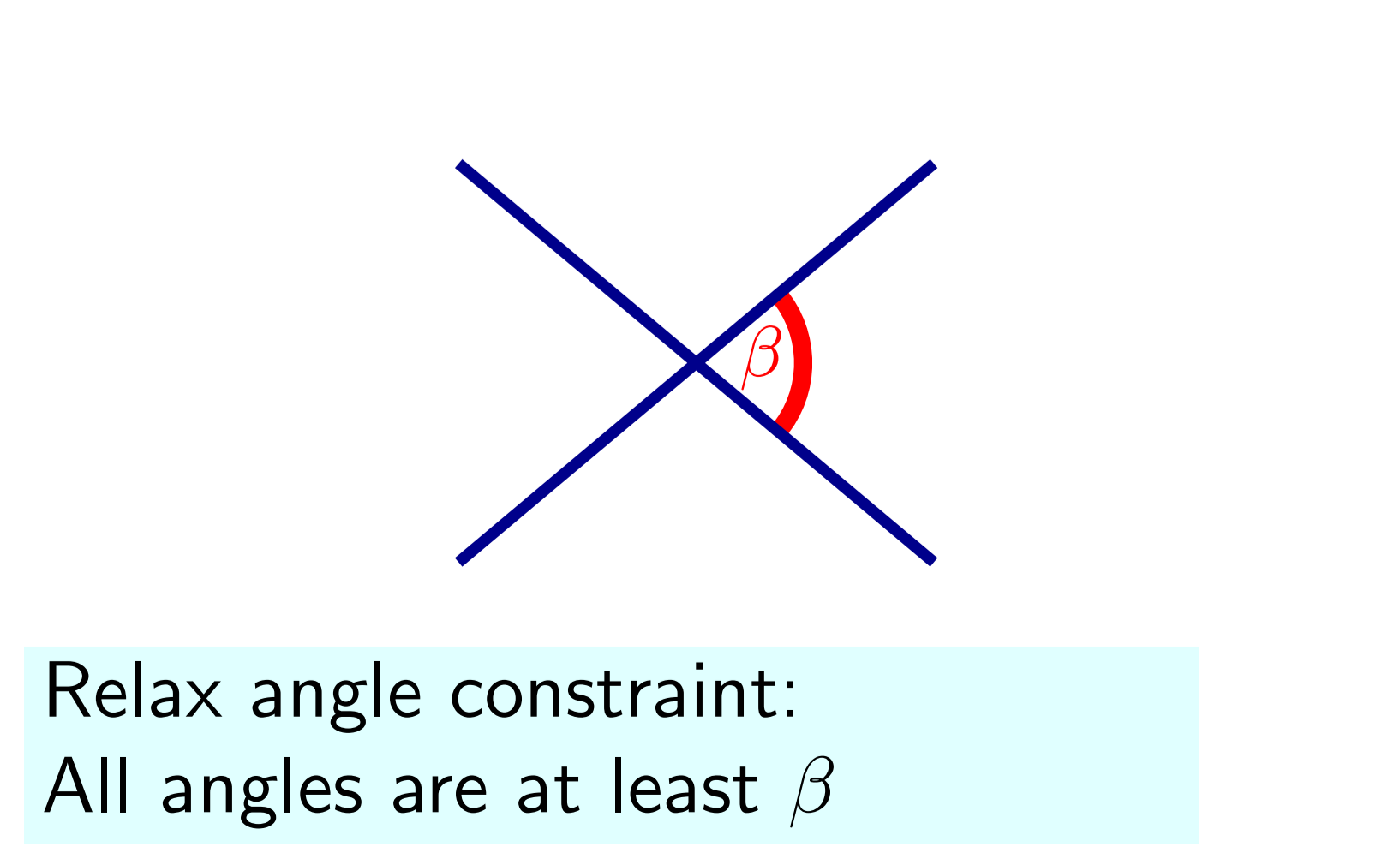
Outerpath + Matching



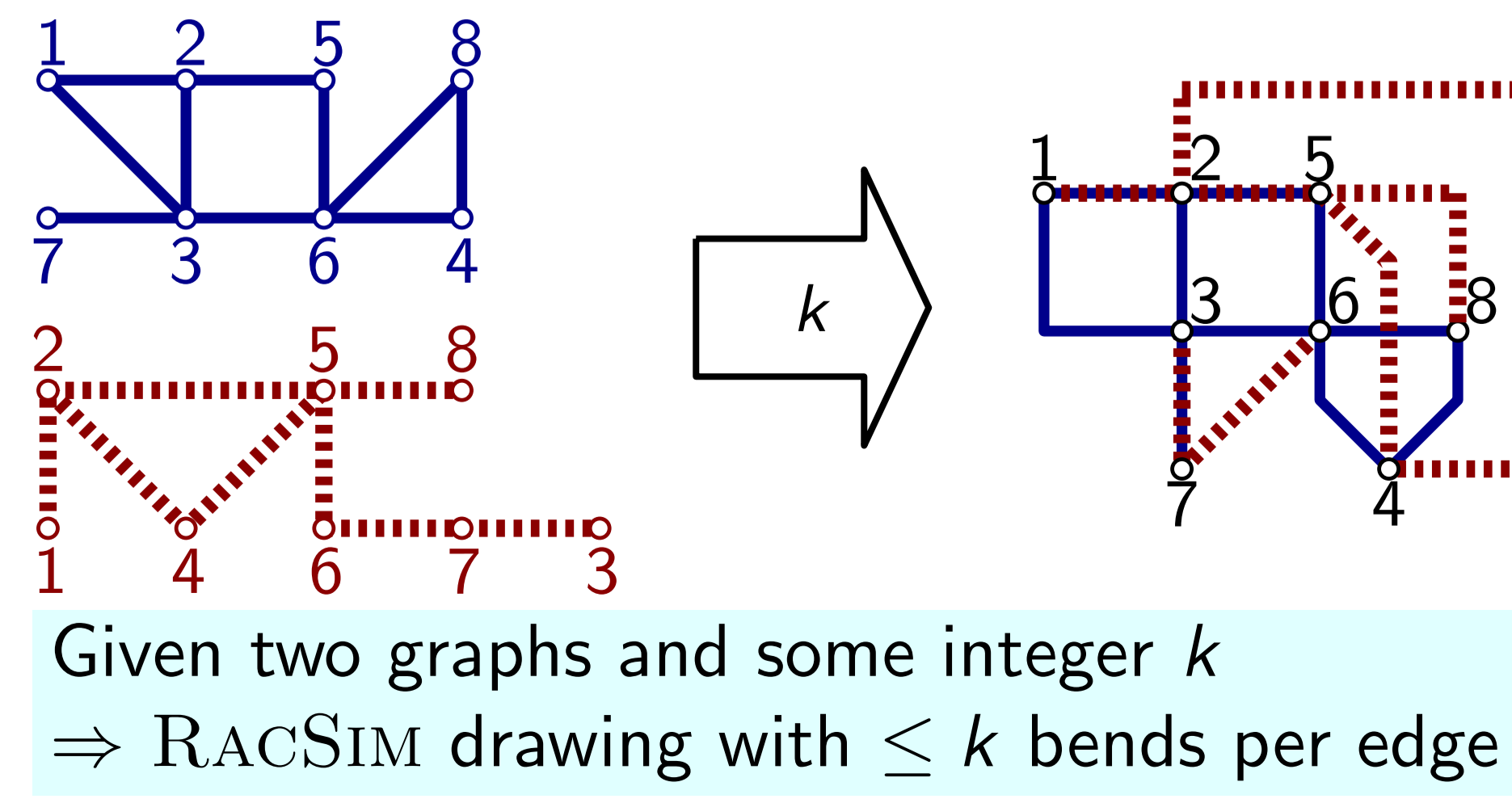
Results

Future Work

Large Angle Crossings (LAC)



Computational Complexity



SIMRAC drawings

