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Improving the Performance of Thinning Algorithms with Directed Rooted Acyclic Graphs

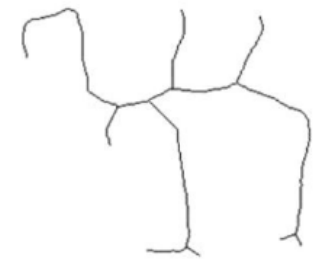
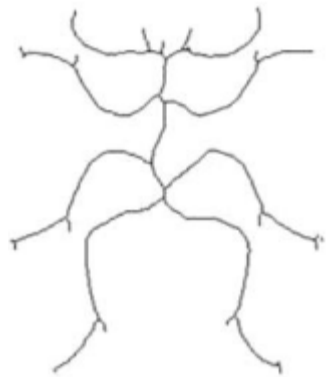


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Improving Thinning Algorithms with DRAG

- Thinning provides an approximate representation of the objects inside images.



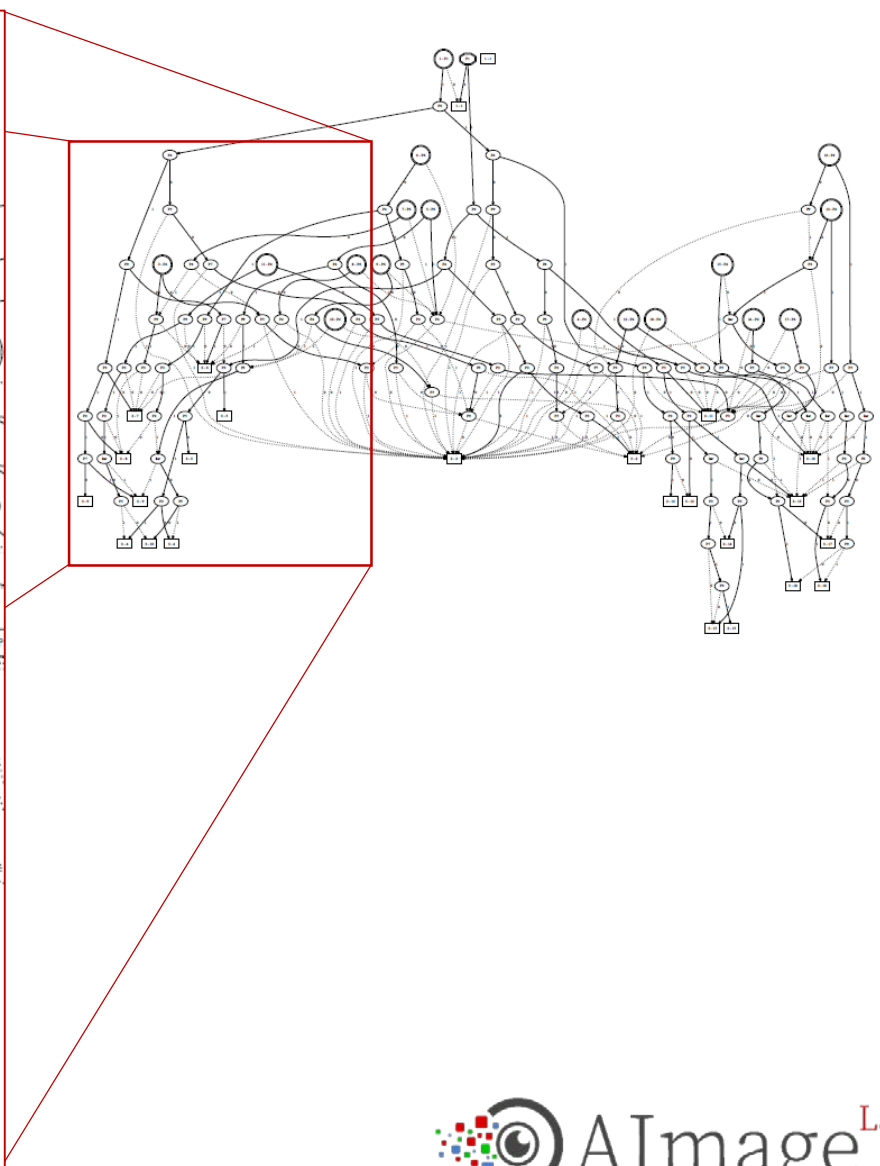
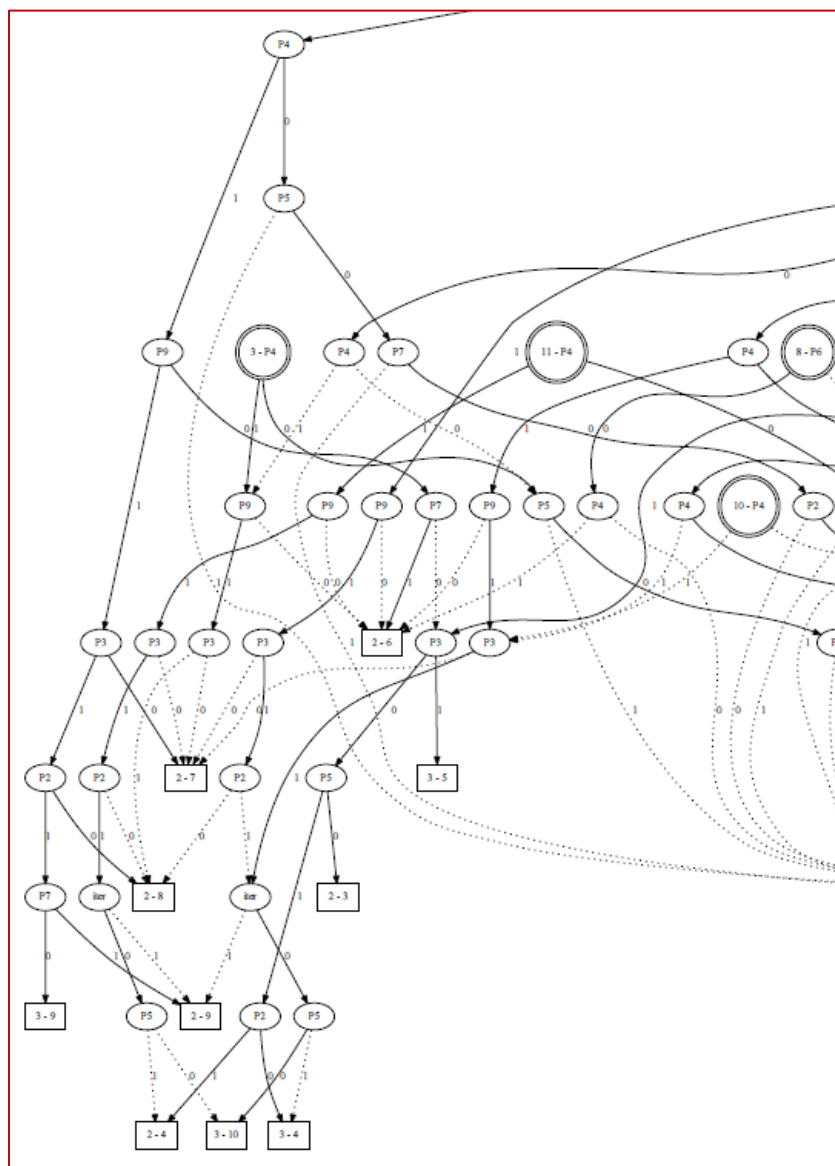
Improving Thinning Algorithms with DRAG

- A lot of approaches have been proposed to improve performances:
 - Look-Up Tables (LUT);
 - Efficient neighborhood exploration based on Decision Trees;
- What is missing?

P_9	P_2	P_3
P_8	P_1	P_4
P_7	P_6	P_5

P_9^X	P_2^X P_9^Y	P_3^X P_2^Y	P_3^Y
P_8^X	P_1^X P_8^Y	P_4^X P_1^Y	P_4^Y
P_7^X	P_6^X P_7^Y	P_5^X P_6^Y	P_5^Y

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Improving Thinning Algorithms with DRAG

- We applied this strategy to three different state-of-the-art thinning algorithms and evaluated their performance with the open source C++ benchmarking system THeBE (github/prittt/thebe).

