1 Segment Match Refinement: Nice example

Produce a minimal resolved refinement for the following set of segment matches.
\[ \mathcal{M} = \{ M_1 = (1_{1,4}, 2_{1,4}), M_2 = (1_{2,5}, 2_{4,7}), M_3 = (2_{5,8}, 3_{5,8}) \} \]

![Diagram showing segment matches]

2 Segment Match Refinement: Does it really work?

Think about why the algorithm works. Does it really resolve every overlapping? Is the produced refinement really minimal? A formal proof is not necessary, but try to find a clear reasoning.

3 Segment Match Refinement: Not so nice example

Look at the following example. Do a few steps of the algorithm and observe what happens. What does this mean for the output? The arrows denote the projections for the different segment matches.
\[ \mathcal{M} = \{ M_1 = (A_{1,5}, B_{1,5}), M_2 = (A_{7,11}, B_{7,11}), M_3 = (A_{1,5}, B_{8,11}), M_4 = (A_{7,11}, B_{1,5}) \} \]

![Diagram showing segment matches]