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Windowing Query

Orthogonal Windowing Query

- Classification

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Type A

❖ Segments with one or both endpoints in W

can be found

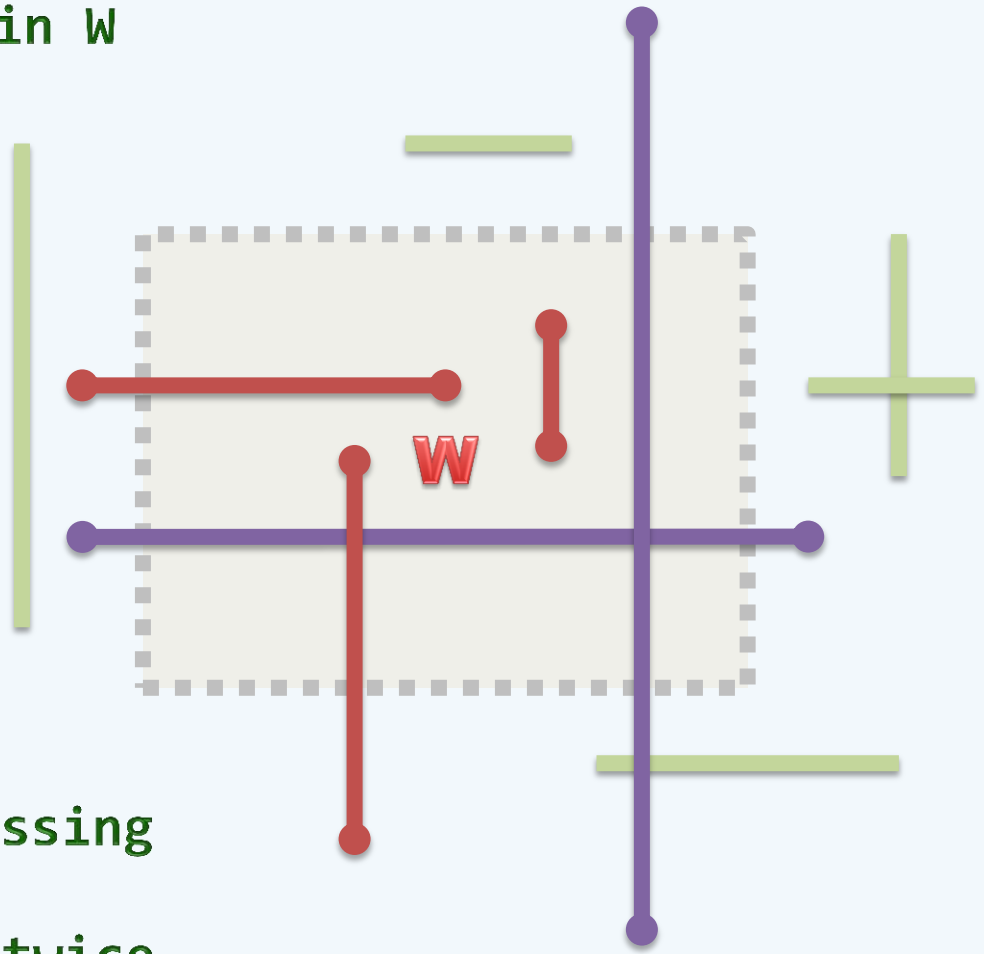
- using a 2D range tree

of size $O(n \log n)$

- in $O(r + \log^2 n)$ time

//improved to $O(r + \log n)$ by FC

- after an $O(n \log n)$ time preprocessing



👁 Some segments may be reported/counted twice

⌛ How to remove the duplicates?

Type B

- It's possible that a segment intersects W,

  but neither endpoint lies in W

- This type of intersections

  are more complicated

- Let's first study the 1D case, and

  then extend the method to 2D case ...