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Point Location

Slab Method

- Ordering Trapezoids

Junhui DENG

deng@tsinghua.edu.cn

Linear Order

- Thus, all edges in $\mathcal{E}(S)$ can

  be **ordered** vertically, and ...

- Within each slab,

  the point location is

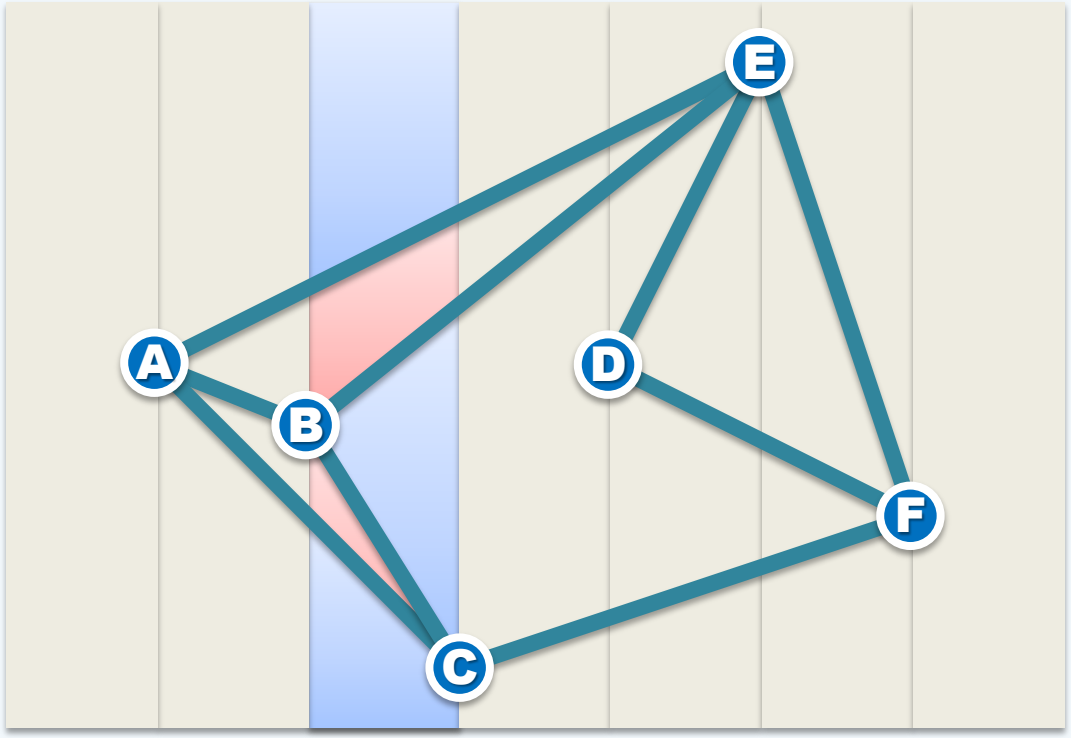
  almost one-dimensional

- In practice,

  a **dummy** edge is added

  running from $(-\infty, -\infty)$ to $(+\infty, -\infty)$ s.t.

  it's guaranteed that there is an edge below each point



AOB Test

- A basic function used here is:

  determine whether a point is

  `Above` / `On` / `Below` an edge

- Recall that,

  using `ToLeft()` test,

  each AOB test can be

  done in $O(1)$ time