04-B-02

Voronoi Diagram

Terminologies

- Intersecting Halfspace

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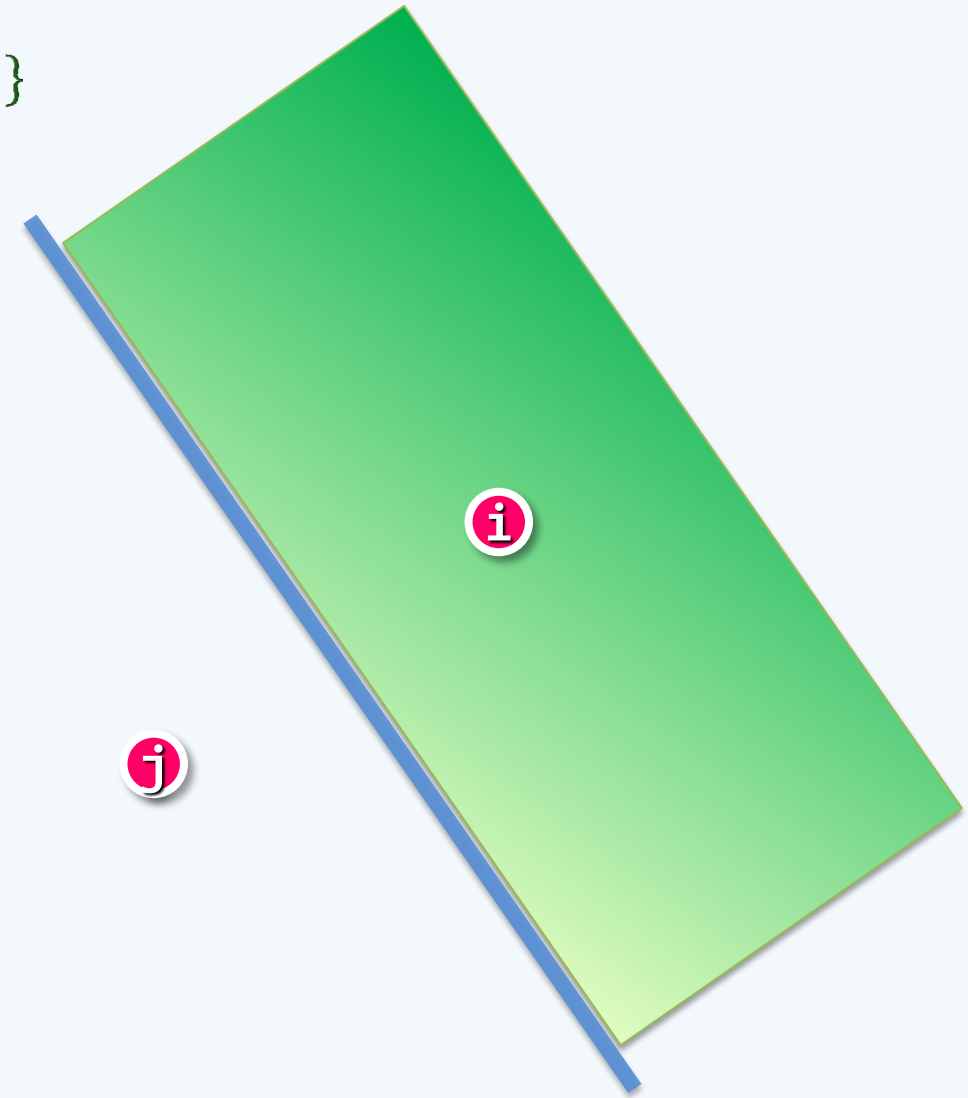
Minimum Distance

❖ $Cell(p_i) = \{ q \in \mathcal{E}^d \mid d(q, p_i) < d(q, p_j),\ \forall j \neq i \}$

❖ For any p_i and p_j,

$$\{ q \in \mathcal{E}^d \mid d(q, p_i) < d(q, p_j) \}$$

is an **open halfspace**



Halfspace Intersection

❖ $Cell(p_i) = \cap_{j \neq i}\{ q \in \mathcal{E}^d \mid d(q,p_i) < d(q,p_j) \}$

is the intersection of n - 1 halfspaces

and hence is convex

(but not necessarily bounded)