

Geometric Range Search

Range Tree: Structure

- Worst Case

Junhui DENG

deng@tsinghua.edu.cn

❖ Using kd-trees,

we need $\mathcal{O}(1 + \sqrt{n})$ time

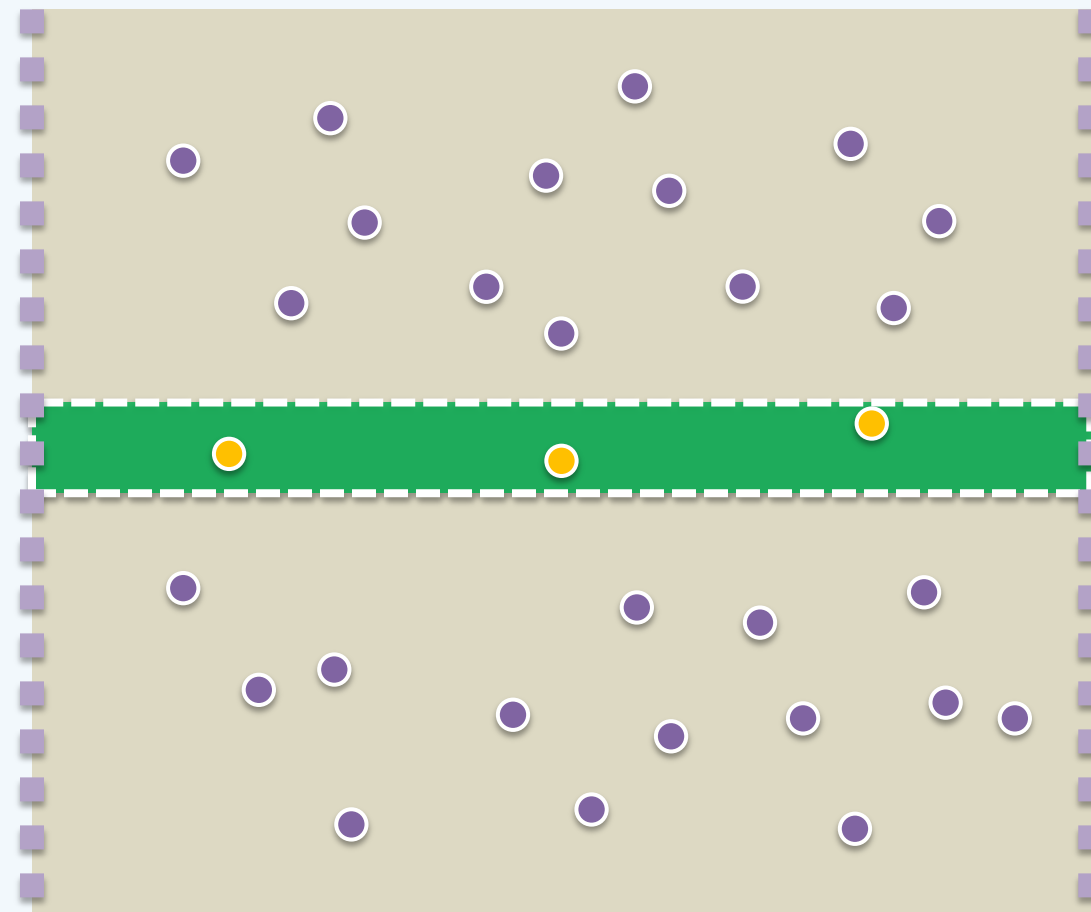
But here ...

❖ The x-query returns

(almost) all points whereas

the y-query rejects

(almost) all



❖ We spent $\Omega(n)$ time before getting $r = 0$ points