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# Geometric Range Search

## Range Tree: Structure

## - x-Query + y-Query

Junhui DENG

deng@tsinghua.edu.cn

# 2D Range Query = x-Query + y-Queries

? Is there any structure

which answers range query

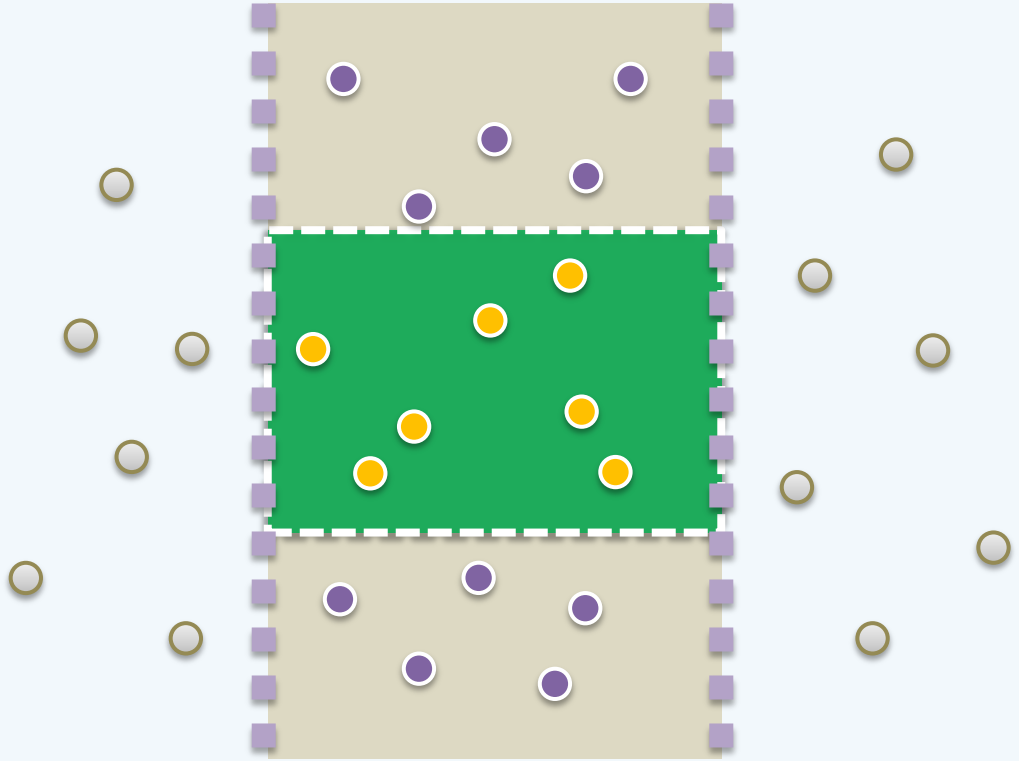
faster than kd-trees?

An m-D orthogonal range query

can be answered by

the intersection of

m 1-D queries



# 2D Range Query = x-Query + y-Query

❖ For example ...

❖ A 2D range query

can be divided into

two 1D range queries:

- find all points

in $[x_1, x_2]$; and then

- find from these candidates

those lying in $[y_1, y_2]$