

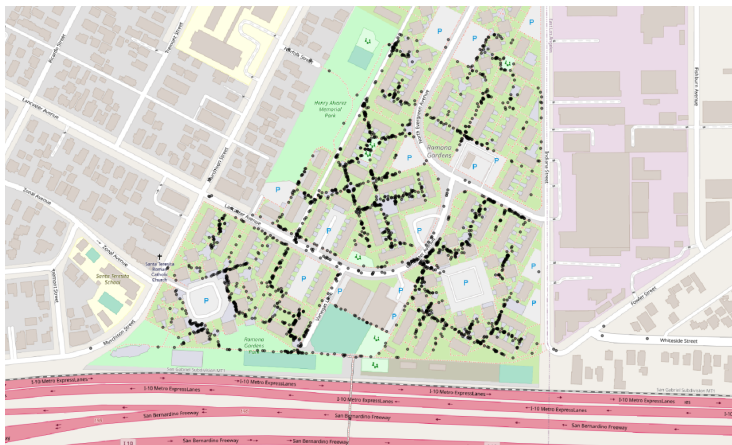
PFLOCK Report

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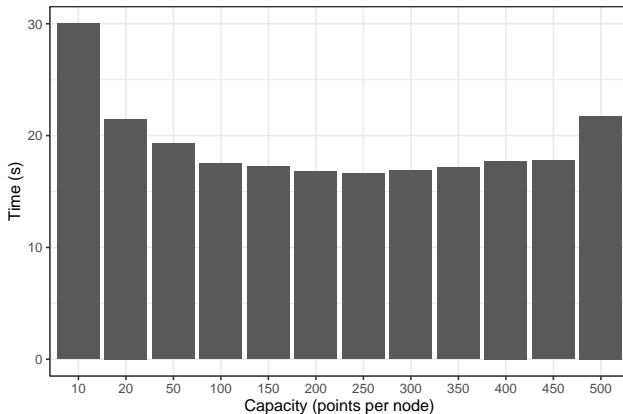
June 23, 2023

Dataset



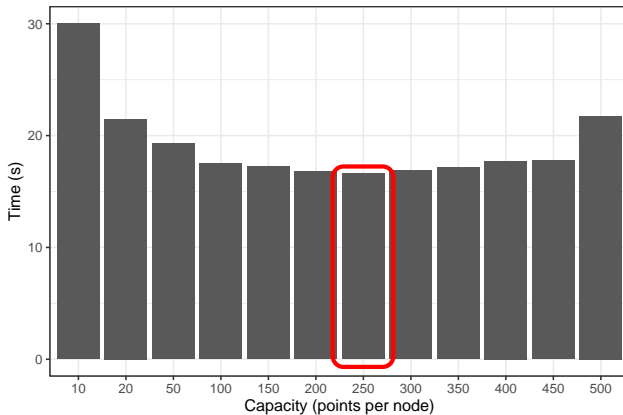
Looking for best partitioning

$\varepsilon = 20$ and $\mu = 3$



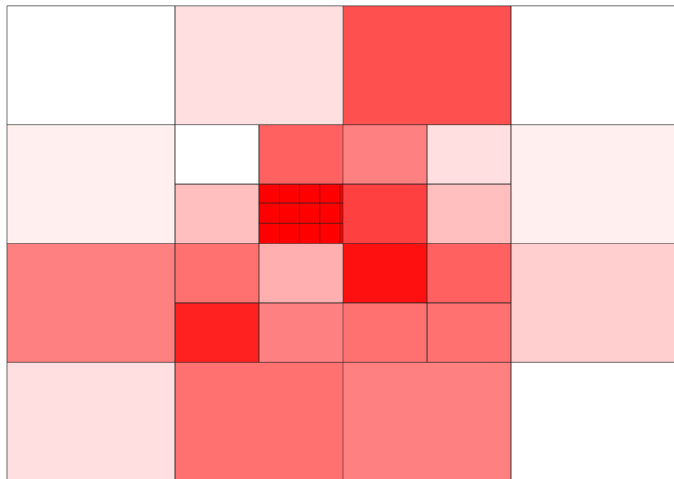
Looking for best partitioning

$\varepsilon = 20$ and $\mu = 3$



Exploring different threshold (pairs per cell)

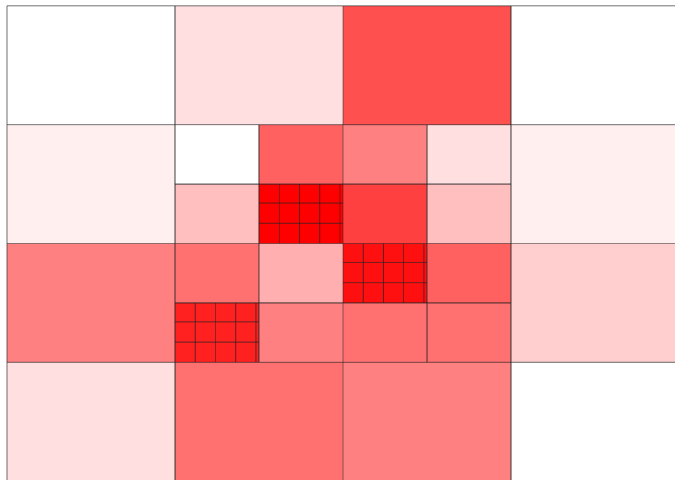
$\varepsilon = 20$ and $\mu = 3$



threshold=8000

Exploring different threshold (pairs per cell)

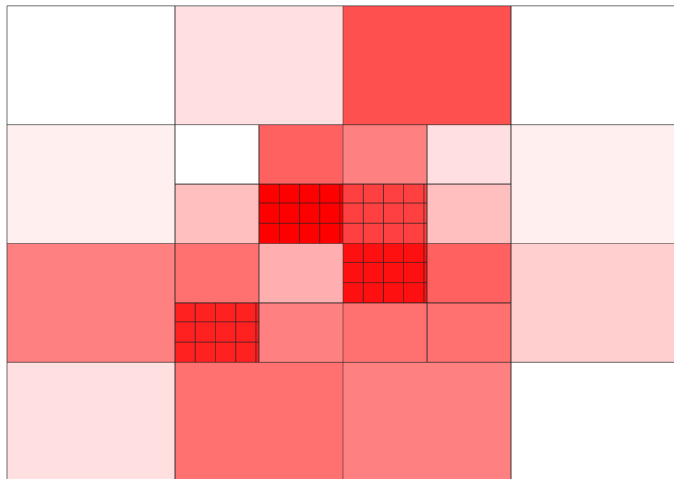
$\varepsilon = 20$ and $\mu = 3$



threshold=7000

Exploring different threshold (pairs per cell)

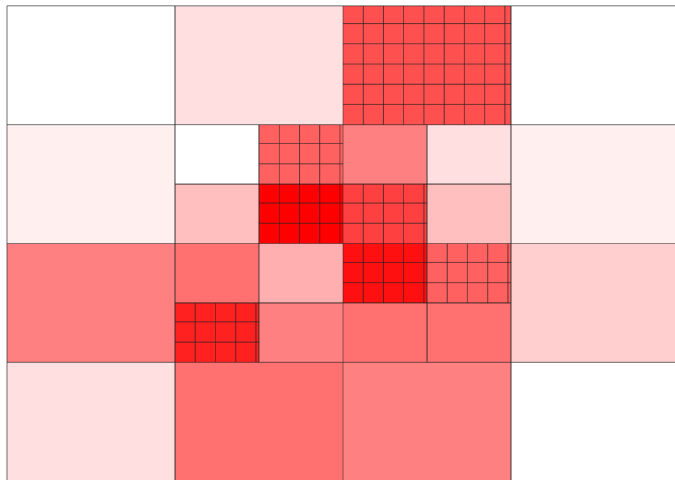
$\varepsilon = 20$ and $\mu = 3$



threshold=6000

Exploring different threshold (pairs per cell)

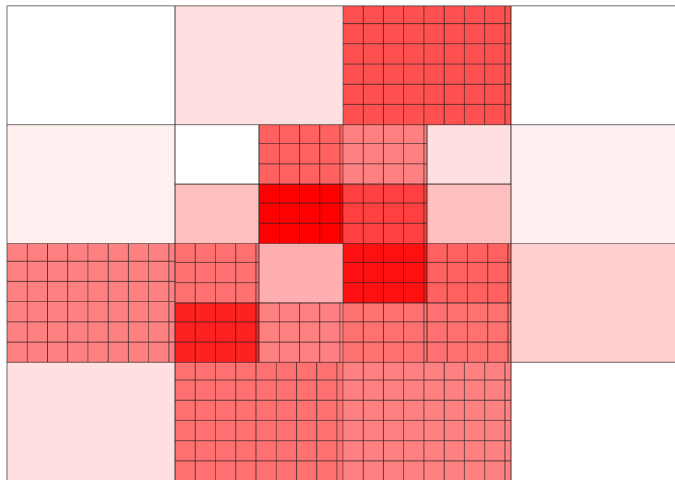
$\varepsilon = 20$ and $\mu = 3$



threshold=5000

Exploring different threshold (pairs per cell)

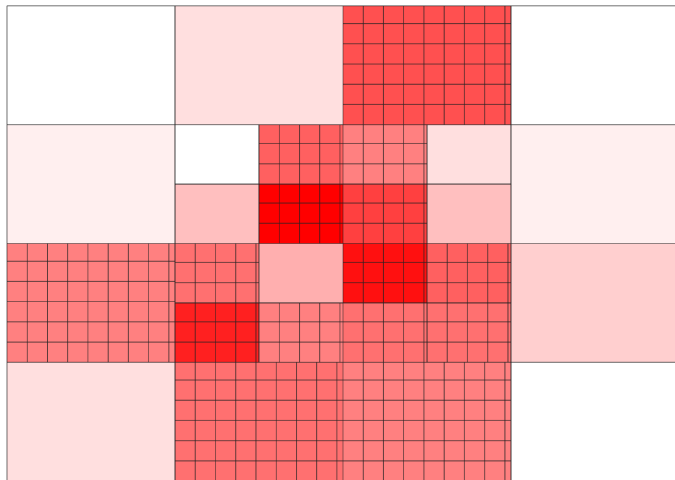
$\varepsilon = 20$ and $\mu = 3$



threshold=4000

Exploring different threshold (pairs per cell)

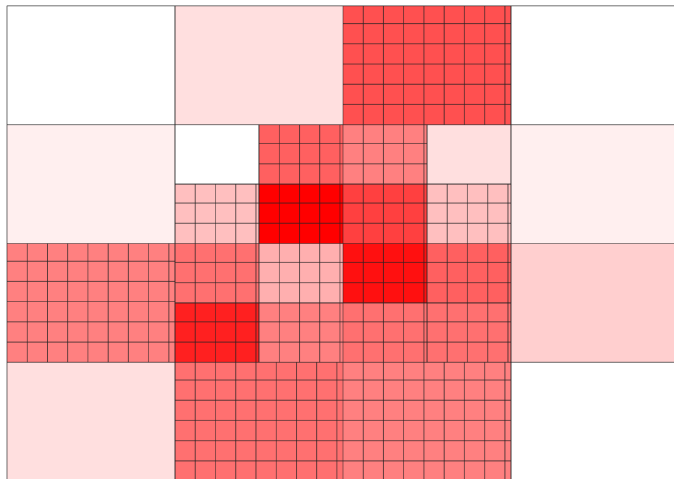
$\varepsilon = 20$ and $\mu = 3$



threshold=3000

Exploring different threshold (pairs per cell)

$\varepsilon = 20$ and $\mu = 3$



threshold=2000

Performance (???)

$\varepsilon = 20, \mu = 3$

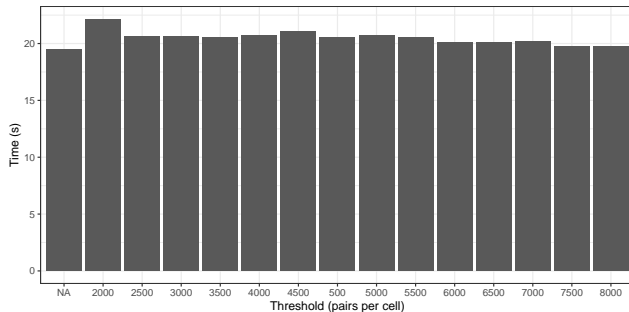


Figure: Varying threshold from 2000 to 8000, comparing with no threshold (NA).

Performance (???)

$\varepsilon = 20, \mu = 3$

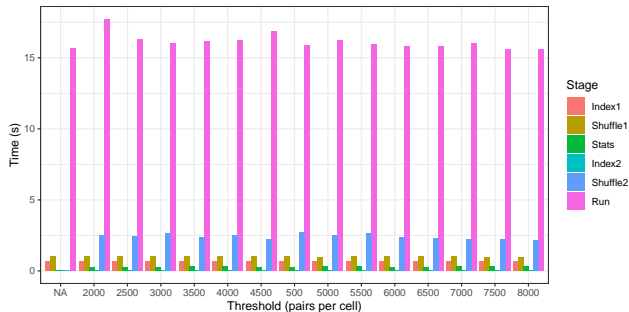
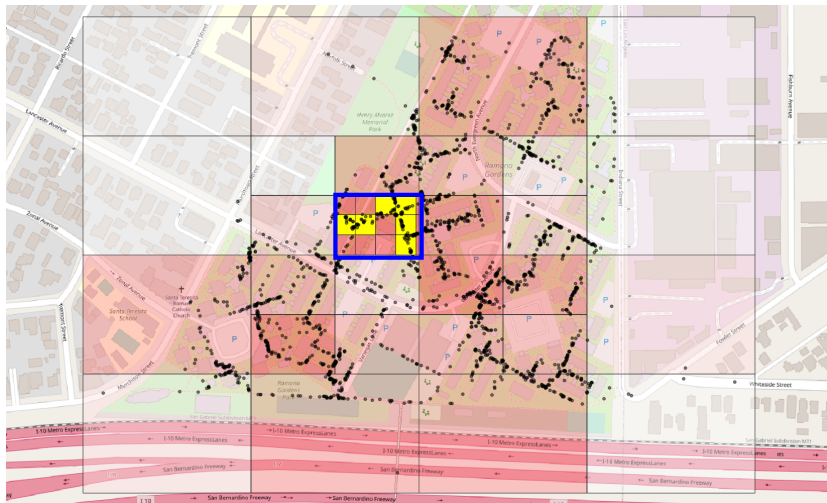


Figure: Varying threshold from 2000 to 8000, comparing with no threshold (NA).

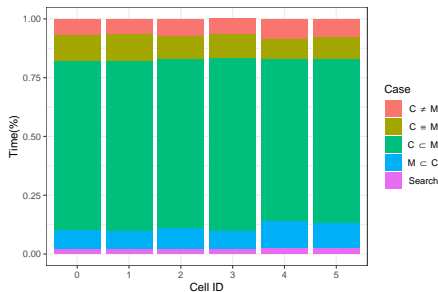
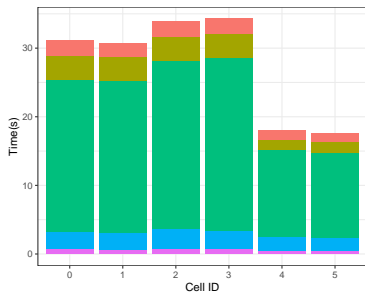
Where the time goes...

6 grids in the densest cell show the longest duration...



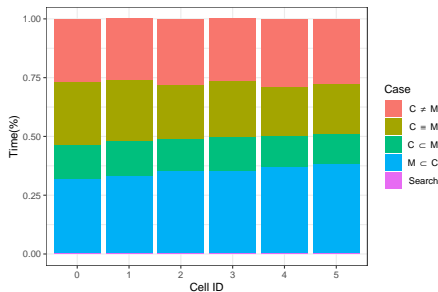
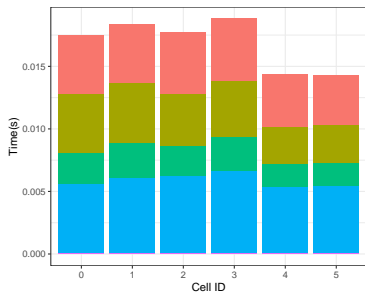
Detecting maximal duplicates, subsets and supersets

Sum of time for each candidate to be evaluated...



Detecting maximal duplicates, subsets and supersets

Average of time for each candidate to be evaluated...



Detecting maximal duplicates, subsets and supersets

Cell	Number candidates	Tree size	Range size	Position
0	10393	258	170	77
1	9579	231	167	84
2	11994	276	166	78
3	10765	251	170	87
4	7974	204	123	64
5	7936	188	126	61

Table: Average size of tree index, query range and position where the candidate was detected (if any).

What is next?

- ▶ I think it is the best we can do under the given parameters...
- ▶ Explore the temporal dimension and evaluate 3D partitioners...