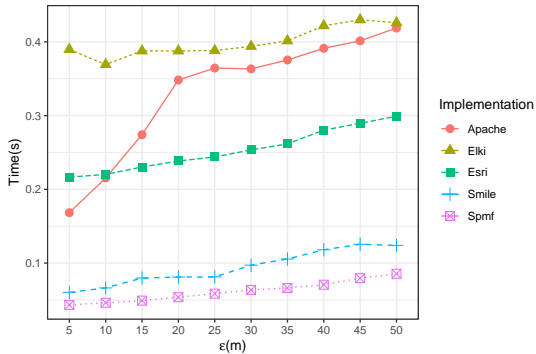# PFLOCK Report

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June 16, 2023

Benchmark DBScan implementations
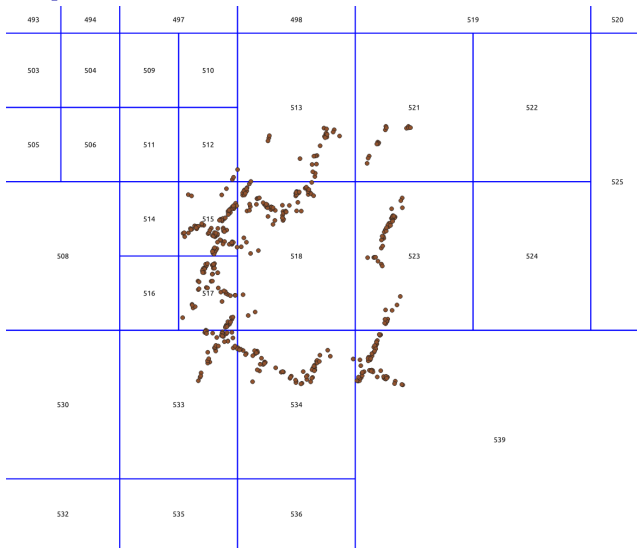
Dense areas

Still problem in partition performance...

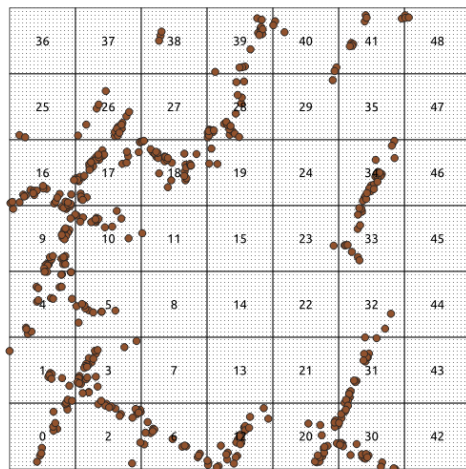# Dense areas

Having a look at problematic cells...

Dense areas

Some stats for Cell 518...

Stage	Number
Points	455
Pairs	11603
Centers	23206
Candidates	23049
Maximals	558

Stage	Time(s)
Grid	0.0126
Read	0.0050
Pairs	0.0328
Centers	0.3852
Candidates	0.0095
Maximals	11.8734
Total	**12.4339**

Dense areas

Dense areas

Top 10 longest duration grids inside Cell 518...

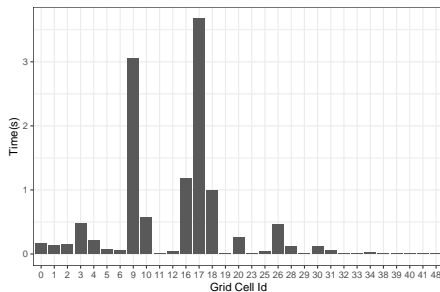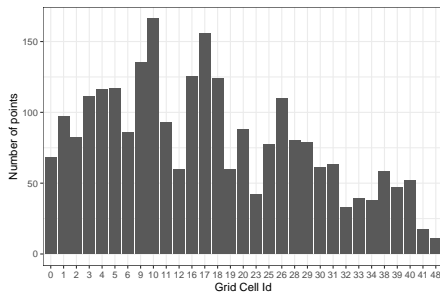|	Id	Position	Points	Time(s)
1	17	(1,4)	156	3.67
2	9	(0,3)	135	3.05
3	16	(0,4)	125	1.18
4	18	(2,4)	124	0.99
5	10	(1,3)	166	0.58
6	3	(1,1)	111	0.48
7	26	(1,5)	110	0.47
8	20	(4,0)	88	0.26
9	4	(0,2)	116	0.21
10	0	(0,0)	68	0.17

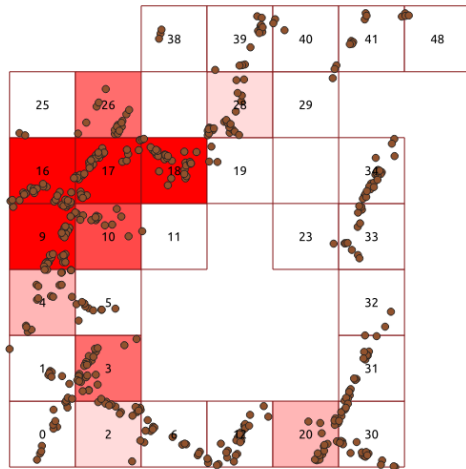# Dense areas

Longest duration grid...
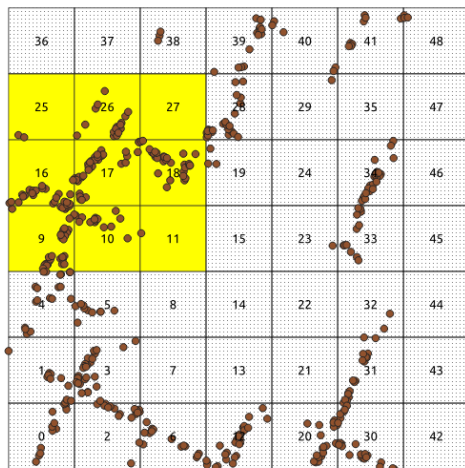
Dense areas

Number of points and duration per grid...

Dense areas

Duration per grid...

What is next...

▶ Working on distributing the neighborhoods in dense areas...
▶ Defining a metric to consider an area as *"dense"*...
▶ Validating and testing performance in cluster...
▶ Exploring strategies to improve cell replication for large ε values...