LAB 3
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Variant 0

Iterating through noise:
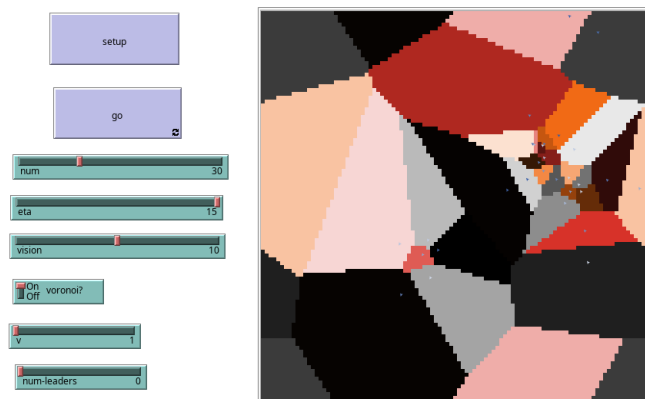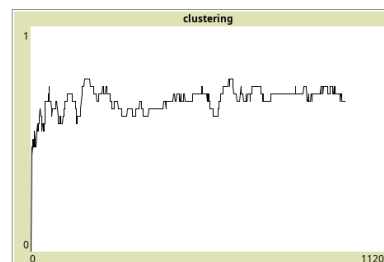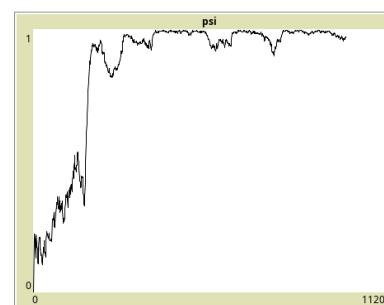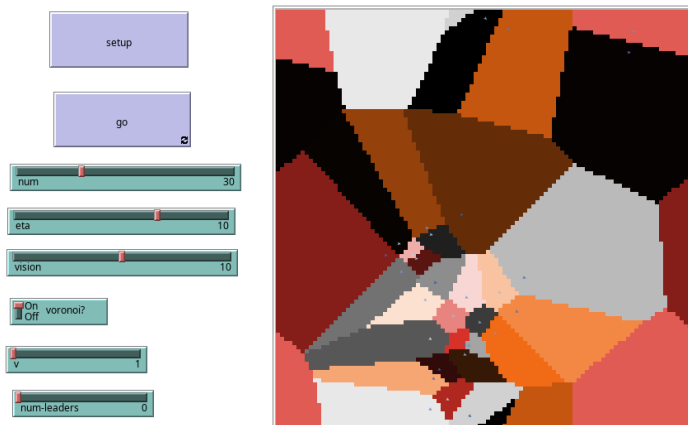1)Eta = 15

2)Eta = 10

setup / go controls

- num: 30
- eta: 10
- vision: 10
- voronoi? On/Off
- v: 1
- num-leaders: 0

psi (0 — 1120)

clustering (0 — 1120)

3)Eta = 5

setup / go controls

- num: 30
- eta: 5
- vision: 10
- voronoi? On/Off
- v: 1
- num-leaders: 0

psi (0 — 1120)

clustering (0 — 1120)
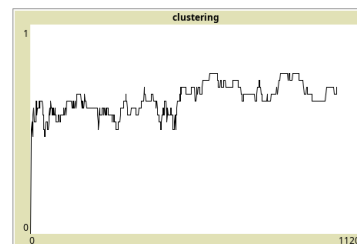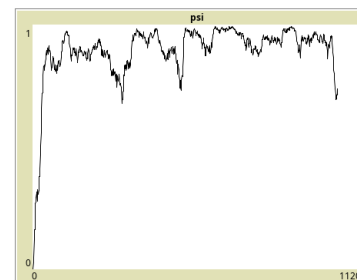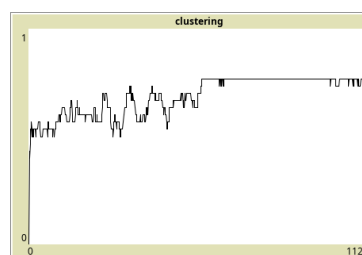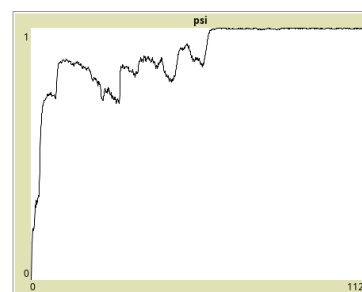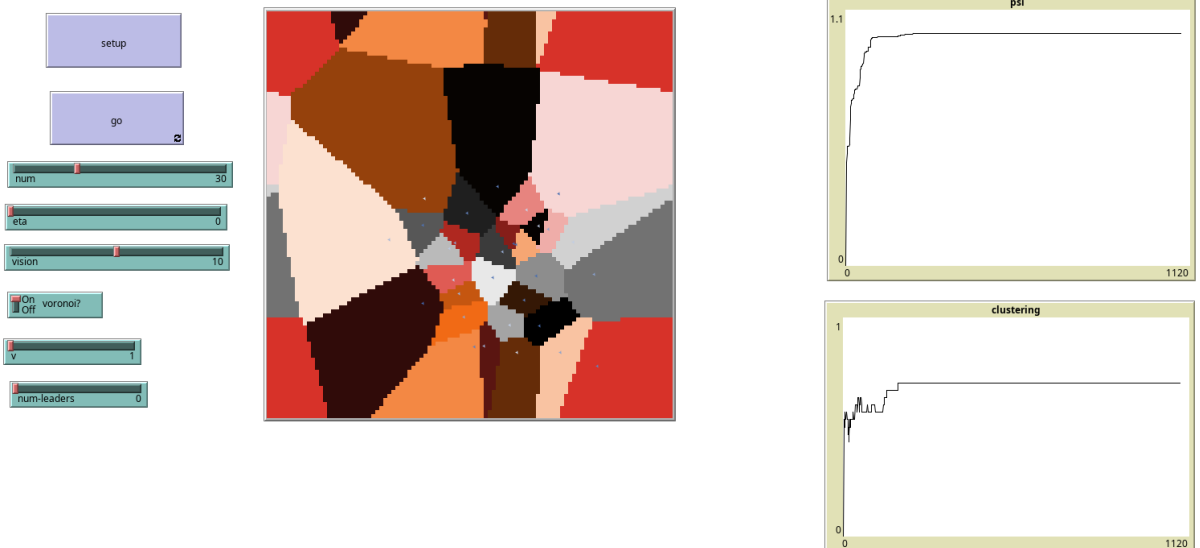
4)Eta = 0

We can see that for the less values of eta the psi and clustering is smoother.
For big eta (15) there are sharp drops in psi values because the noise is big.
The clustering values is clumsy, bigger than 0.5 but doesn't tends to 1
For another big eta, but a bit smaller (10), it takes more time for psi to reach saturation, the values around 1 are less clumsy tho. The clustering value seems to be the same.
For eta = 5, it takes more time to reach saturation and the line is steppy with sharp drops, but the saturation line is much smoother
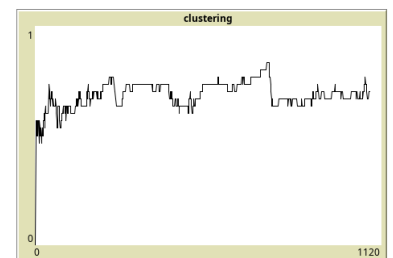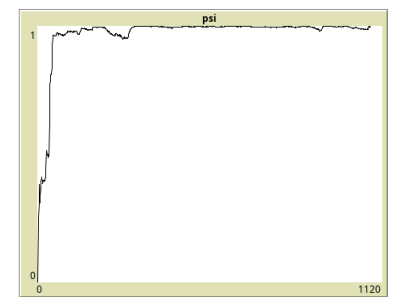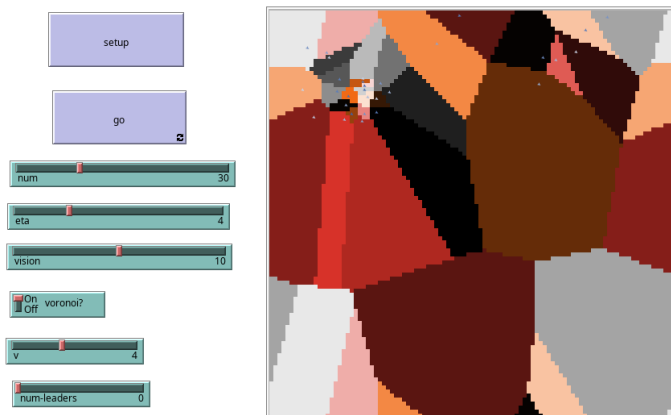For no eta it doesn't take much time to reach saturation and the after that the line is absolutely smooth

Velocity

1) V = 1

2) V = 4

3) V = 7
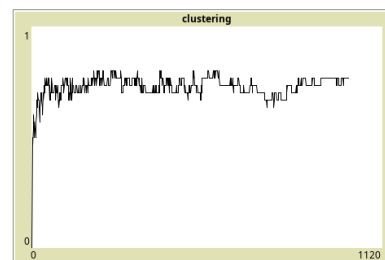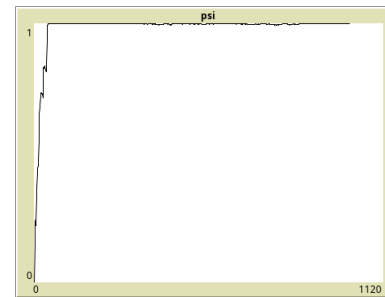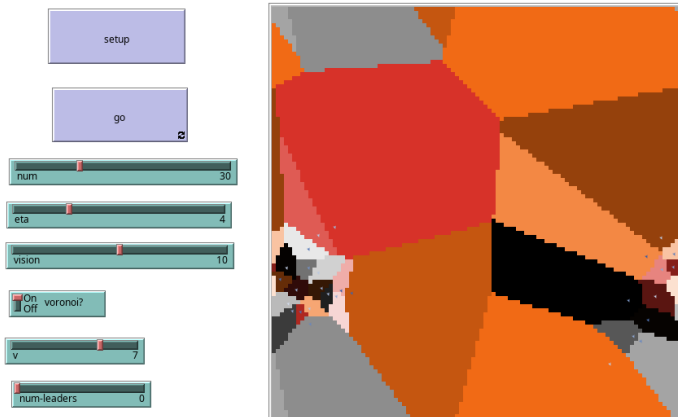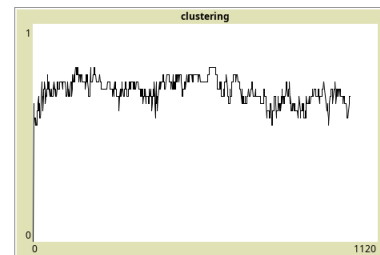

setup

go

num   30
eta   4
vision   10

On
Off   voronoi?

v   7

num-leaders 0

psi
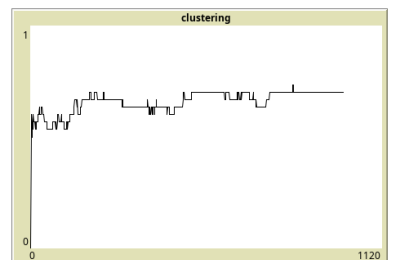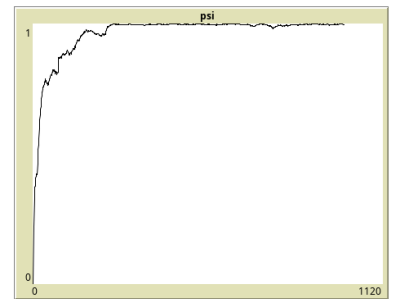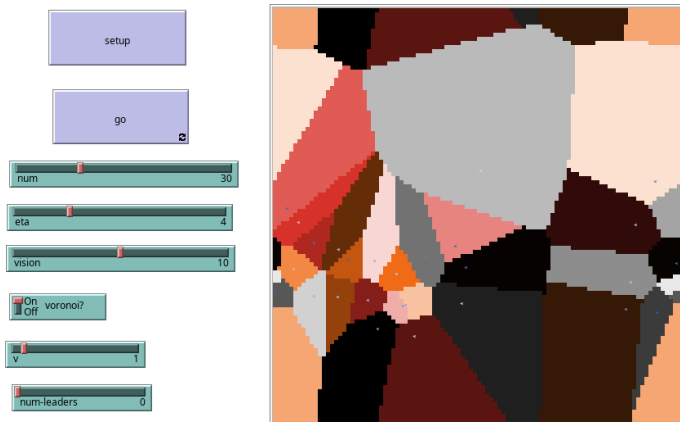
clustering

4) V = 10
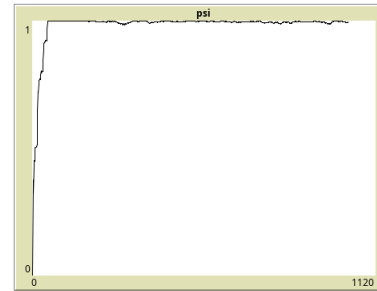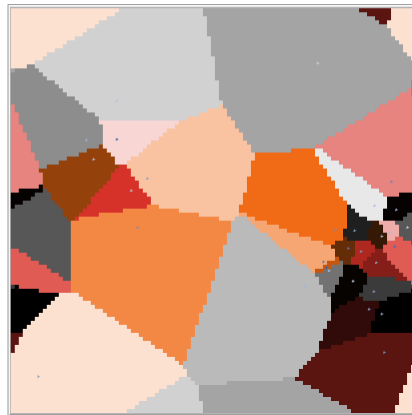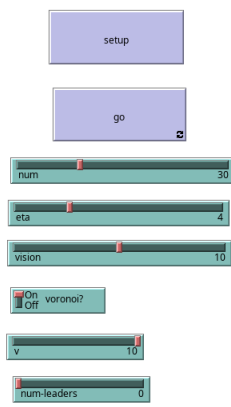
So, it's clear that the bigger the velocity of moving particles the sharper is the plot of psi, as obviously the turtles simply moving faster. The clustering values are more narrow for the bigger velocities, the values doesn't seem to change much tho.

Leaders

1) L =1

setup

go

num   30

eta   4

vision   10

On
Off   voronoi?

v   1

num-leaders   1

psi

1

0
0   1120

clustering

1

0
0   1120
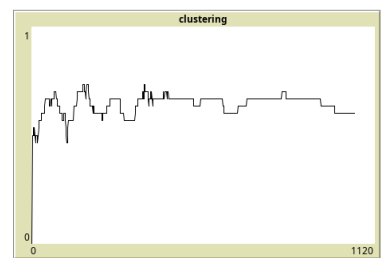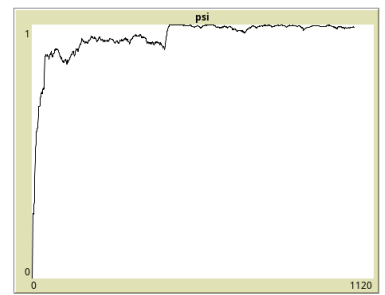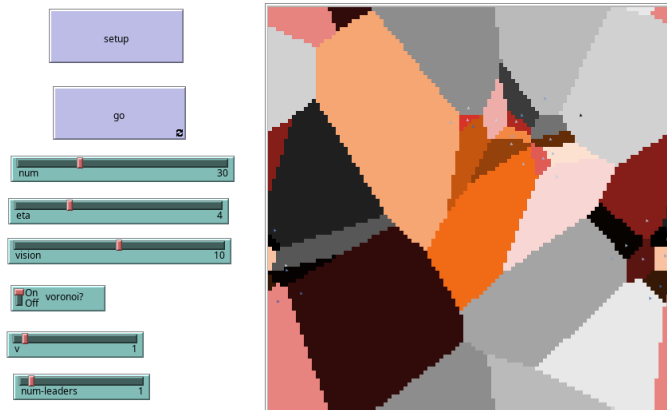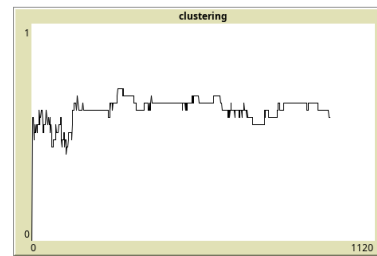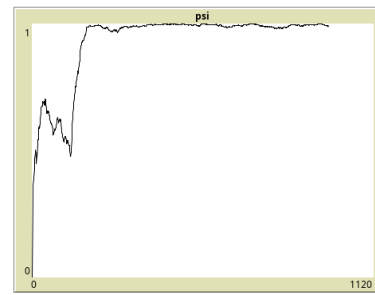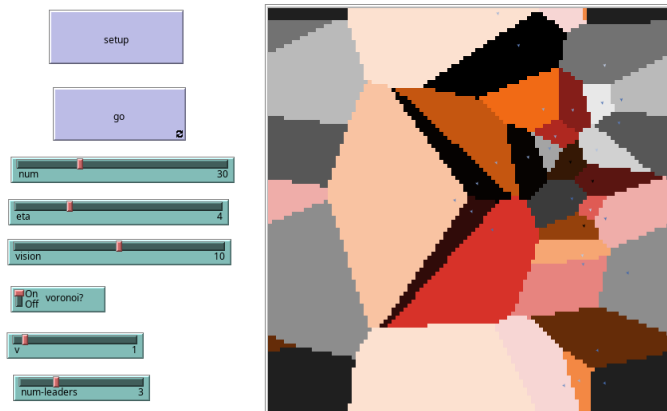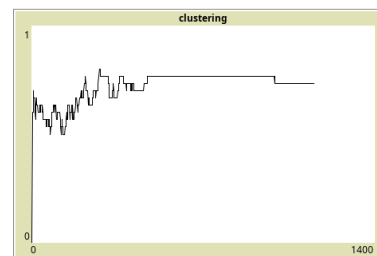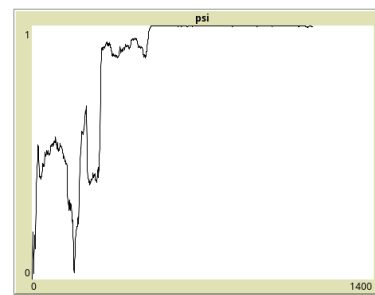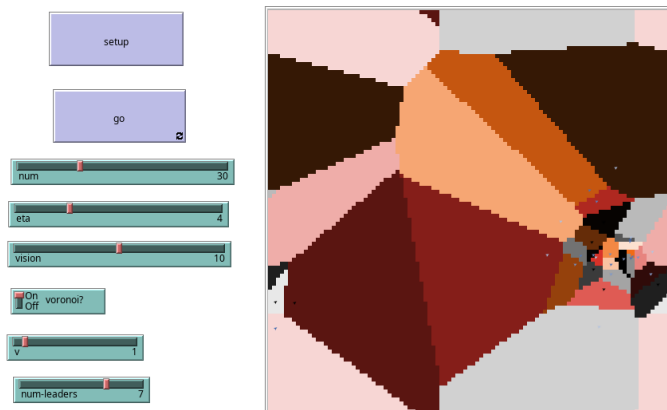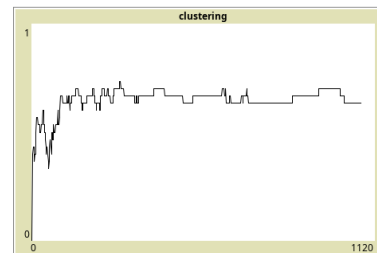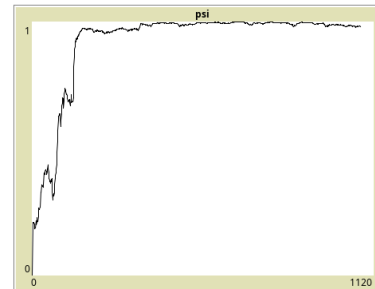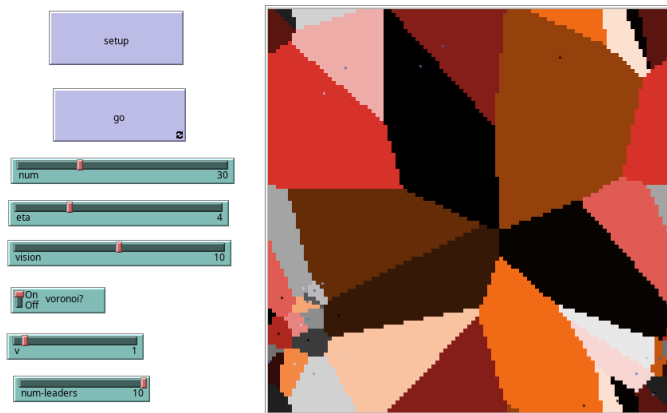
2) L = 3

3) L = 7

4) L = 10

With one leader it takes some time to reach the values around 1, but the psi is not decreasing and the clustering plot is steppy with pretty wide steps.
For bigger number of leaders (3 and 7) the psi plot have some falls, much sharper for 7 leaders.
Clustering is steppy as well for 3, but steps are more narrow.
For 7 after some point it becomes really smooth.
For 10 leaders the clustering is steppy as well and the psi is pretty sharp without some noticeable falls/