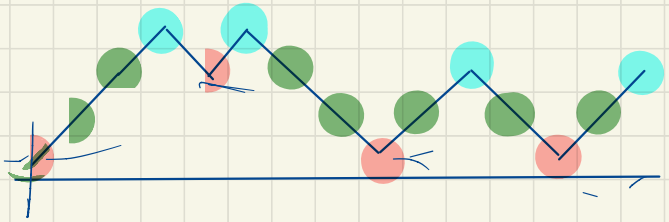
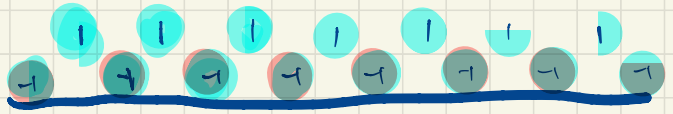


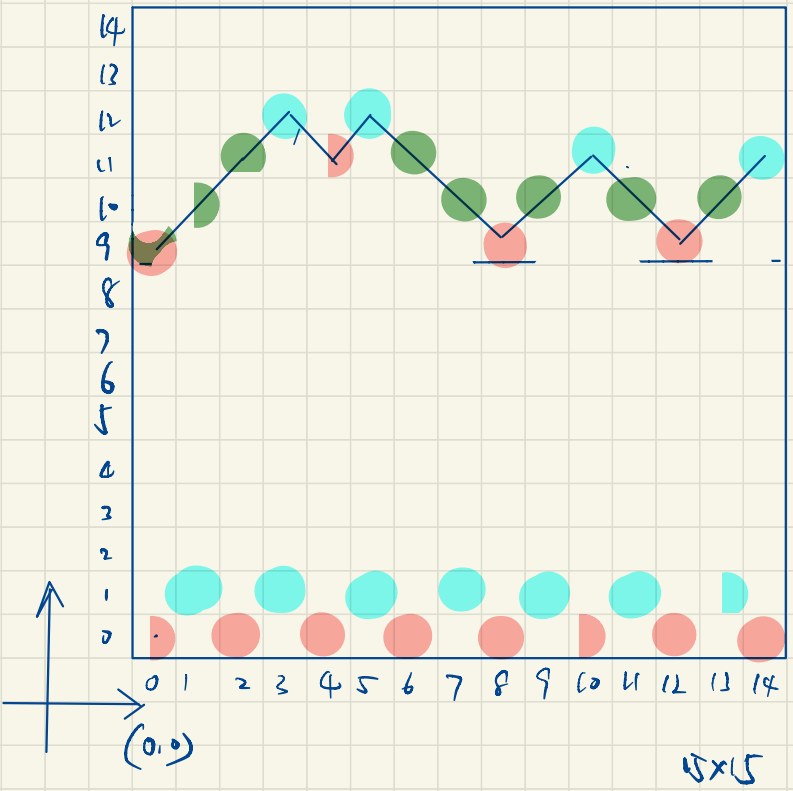


2 Stable site.

3 desorption site

1 growth site

$P_+ + P_- = 1$



5x5

Height

9 10 11 12 11 12 11 10 9 10 11 10 9 10 11

↑ time.

0 1 0 1 0 1 0 1 0 1 0 1 0

Initial state.

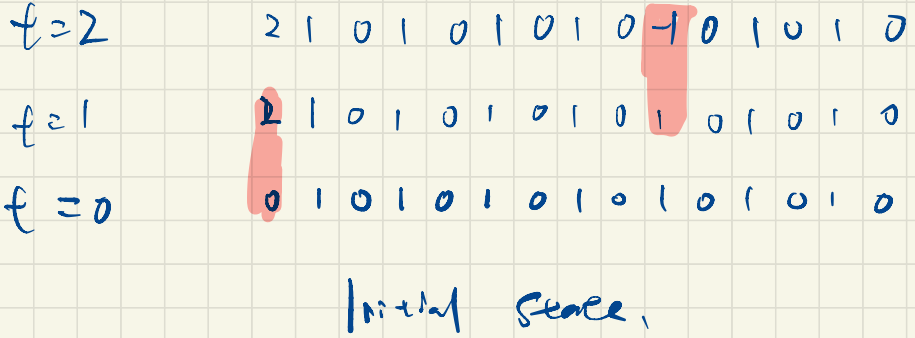
[221] PRL.

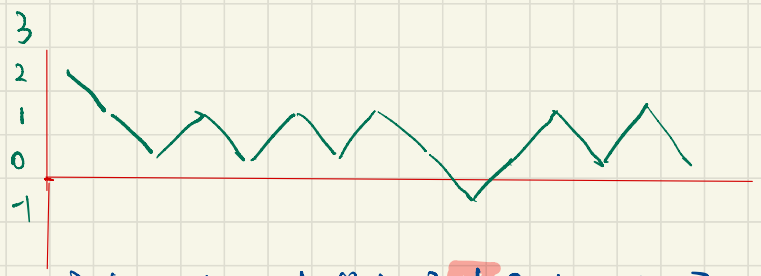
Ref: Barabasi & Stanley p. 82. Kim. Kosterlitz 89 growth

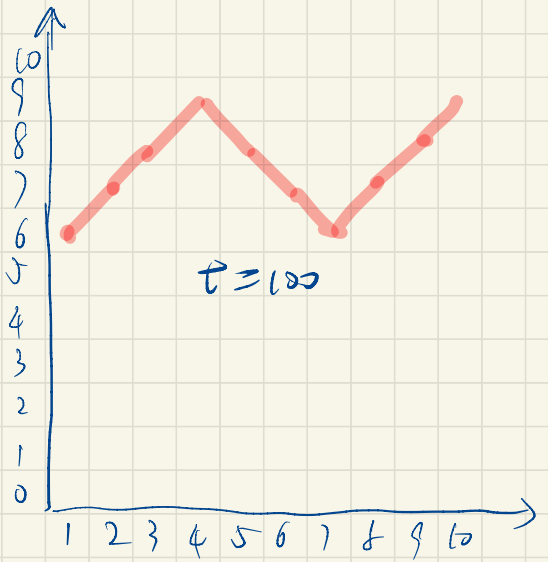
Updating Strategy:

① Sequential:

② parallel:


t=2
2 1 0 1 0 1 0 1 0 1 0 1 0
t=1
2 1 0 1 0 1 0 1 0 1 0 1 0
t=0
0 1 0 1 0 1 0 1 0 1 0 1 0
Initial State.





t=2 2 1 0 1 0 1 0 1 0 -1 0 1 0 1 0

t=1 2 1 0 1 0 1 0 1 0 1 0 1 0 1 0

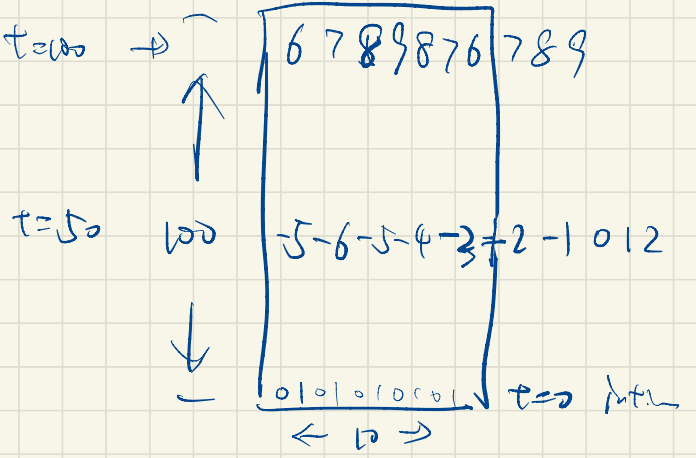
t=0 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0

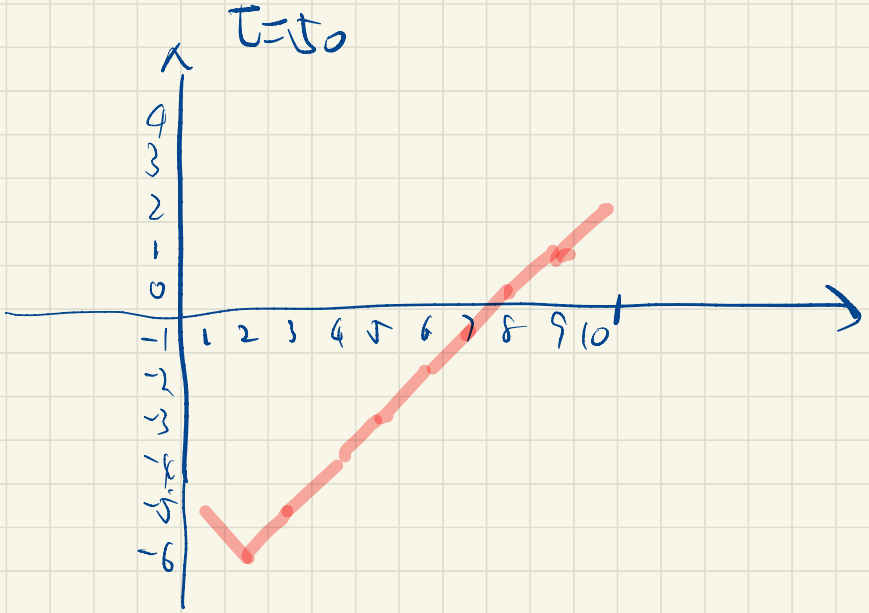
Initial state.

sos (width, time, pup, pdow)

width = 10, time = 100, pup = 0.6, pdow = 0.4

return: np.array 100 × 10




t=to
1
2
3
4
5
6
7
8
9
10